



An-Najah National University

Faculty of Engineering and Information Technology
Computer Engineering Department
Graduation Project I



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First and foremost, all that we have accomplished in this project is because of Allah's guidance and blessings.

This project represents all the knowledge we have learned throughout our journey in computer engineering; also, we have applied and shown various features and software engineering skills.

We want to express our deepest gratitude to our supervisor, Dr. Emad Natsheh, for his experience, guidance, and insightful guidance. His mentorship not only improved the quality of this project but also transformed it into something far beyond our initial vision.

To my beloved parents and family, thank you for your support, patience, and love. Your belief in us has been my source of motivation. To our friends, we do appreciate your support and the moments we shared.

Finally, we dedicate this achievement to our beloved country, Palestine. Despite the challenges we face, the resilience, strength, and spirit of our people inspire us to strive for excellence. Completing this project in such difficult times is not just our success, but a shared victory.

Disclaimer

This is based on the requirements of the Computer Engineering program of An-Najah National University. It represents the culmination of the student's work, thoughts, and interpretations. As such, these academic materials should be used only if suitable for this purpose. The information, methodologies, and materials presented in this project are the result of the authors' research and dedicated efforts. Any opinion stated in this project does not specifically reflect the official views or policies of An-Najah National University.

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Chapter 1

Abstract

EduPro is an educational and social media platform that supports microlearning principles. We have created this project to serve students and experts in our community in the first place and people all around the world.

EduPro has three users, the admin has full view and control of the system. Students can learn many skills through courses, test their understanding with quizzes, track their progress, chat with others, follow their tutors, and add reminders. Tutors can perform all user actions in addition to creating posts, and courses which is the core feature of the project.

Tutors have the flexibility to create many sections inside courses that may include videos, documents, quizzes, and coding exercises, also they have the guidance to do so. They can interact with their students by creating posts others can comment on or like, also they have profiles so users can view their courses and general info. Our chatting system supports sharing documents and photos.

We developed using a combination of modern technologies, including TypeScript for frontend and Django for the backend. Our Project has a creative and interactive user experience and a friendly user interface. User has access to the same features seamlessly on both web and mobile applications.

Chapter 2

Introduction

2.1 Problem

In today's growing digital age, learners and educators rely heavily on online platforms for accessing and sharing knowledge. However, many existing e-learning platforms have significant challenges that obstruct their effectiveness. One major issue is the consistency in user experience across web and mobile applications; not all platforms support the same feature on both.

Also because of the complexity and overlap of procedures and resources, instructors struggle to design and organize courses, which makes it hard to finish the course. Moreover, to enable them to focus on producing high-quality content rather than facing technical issues, this process must be made simpler and more real. On the learner's side, any beginner or student needs guidance, someone to answer his questions, and personal experience, which we do not have on many platforms.

Moreover, people usually are not committed to their progress, especially in a self-paced online environment. There is a need for tools to track and show their achievements, so we need features to do so.

One of the main problems that motivated us the most was the situation in Gaza; many well-educated, talented individuals, with the skills and knowledge to educate others, were seeking jobs by posting on social media. They needed a platform that they could rely on to educate, earn money, and reach the audience.

We have taken all these factors into account while designing the EduPro system. We aim to create a platform that fills the gap between educators and learners and provides a smooth, accessible, and supportive learning experience. EduPro is designed to provide educators with easy-to-use tools for course creation, learners with personalized guidance and progress tracking, and a consistent user experience across

the web and mobile. By addressing these factors, EduPro aims to make education more inclusive, effective, and sustainable for communities worldwide, including those facing special challenges like Gaza.

2.2 Objective

EduPro aspires to create a combined platform for distance learning whereby course creation is made easier for teachers and learning simpler for students. The platform will run to provide a consistent and seamless user experience across their web and mobile applications for accessibility purposes.

2.3 Scope Of the Work

The EduPro project is aimed at the study and implementation of a great e-learning platform meant to address issues pertinent to learners as well as educators. This platform will ensure cross-platform compatibility of its application.

2.4 Importance

EduPro idea came from our experience in using many e-learning platforms, we struggled with many issues using these applications. We needed a community to communicate with, experts to ask and colleagues to be motivated to work with.

We wanted to serve our local community in the first place. Palestinians have great potential to provide knowledge, but we need a platform where we can deliver our experience and make money. What happened in Gaza moved us, EduPro gives any tutor the ability to teach without even having a laptop.

EduPro has many tools that enable any tutor to produce high-quality course content with all that the student might need. Tutors can interact with their students, they have profiles, and students can follow them, tutors can post on our platform, moreover, they can learn any field like any other learner.

Students can have complete interactive tools, we recommend them courses, and they have the flexibility to study the courses and move between their sections. We track

their progress, so they can stay motivated, also it is a personal space where they can add their notes. All these features we need to commit to our learning process, that is why we combine them all in one place.

2.5 Report Organization

First you are going to read our project overview, then

Chapter 3 Constraints, Standards, and Earlier Coursework

3.1 Constraints and limitations

1. Technical Constraints

- **Cross Platform Consistency:**
Implementing the same features including advanced ones like course creation, file uploads, and real-time chat on both mobile and web.
- **Performance Limitations:**
Ensure consistency due to the high load of resources on servers, and deliver resources without delay.
- **Database Management:**
Creating a scalable database structure was hard in terms of large amounts of user details, and course content.

2. User-Centric Constraints

- **Usability for Beginners:**
Design an easy-to-use user interface with dynamic flows even with complex functionality.
- **Offline Access:**
Offline access implementation needed more additional storage and synchronization logic.

3. Resource Management

- **Limitation of File Size:**

It's essential to place limits on files for uploaded resources without sacrificing quality, especially in the case of videos.

- Video Streaming:

This became difficult as the need to ensure smooth video playback to users with different bandwidth capabilities would mean that adaptive bitrate streaming technology must, as much as possible, be used.

4. Payment and Pricing

- Currency Support:

Dealing with multiple currencies and real-time exchange rates was complicated.

- Loyalty Points System:

The implementation of a dynamic point system will have added back-end logic to calculate, track, and redeem loyalty points appropriately.

5. AI-Driven Recommendations

- Suggested Courses and Content:

Data set collection causes a bottleneck for training AI models to offer personalized recommendations.

- Automatic Approval:

It was challenging to design automatic approval to allow course publishing based on tutor experience.

6. Responsiveness and State Management

- Responsive design:

The platform's UI required relevant design iterations to accommodate the various devices, screen sizes, and resolutions while ensuring usability and consistency.

- Shared State Across Pages:

Managing user sessions and ensuring the proper flow of data across multiple pages require the integration of state management

mechanisms such as user context into the application, which increases the complexity of development.

7. Course Structure and Standards

- Course Content

Enabling the user to build the course content and structure dynamically, including videos and quizzes was challenging in addition to displaying them to the user and interacting with his answers.

8. Interactive Coding Exercises:

- We faced difficulties in integrating a compiler that executes codes with default code and test cases.

9. Chat:

- We supported not only text but files and images.

10. Time:

- Time was a huge issue, because of the amount of features we needed to implement, we wanted to build a complete system. Some of the features did not work properly the first time and we needed to rebuild them differently.

3.2 Standards

3.2.1 Four Tiers Architecture

EduPro was built based on a four-tier architecture, that divides an application into four distinct layers: Presentation Tier, Application Tier, Database Tier, and Integration Tier. Each layer has specific responsibilities, they all provide modularity, scalability, and maintainability.

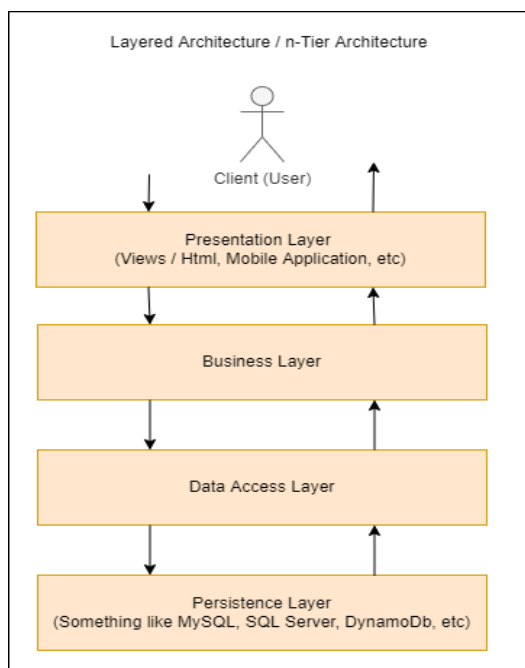
The user interacts with the application through the presentation layer, which is responsible for handling the user interactions. We developed using React and React Native.

The application layer is the core of any system, it is responsible for handling business logic and application-level operations. It was built using Django, this layer manipulates user requests, validates data, orchestrates the communication between the frontend and database, and stands as an isolation layer to protect the database. It ensures users' authentication and controls their access.

The database tier is responsible for storing and managing data required inside any system. In EduPro Django ORM was used which provides consistency and security. Also makes sure queries are handled effectively.

The integration tier manages interactions between the application and external services and APIs, including payment, video streaming, and AI-powered recommendation services. This layer guarantees that the platform be able to incorporate new features and capabilities without affecting the structure of the core of the system.

We have many complex procedures so we used 4-Tiers architecture to ensure robust program flows and to implement those features in a flexible approach. For the program development in the near future we needed scalable and modular system. Also, we needed to reduce the computational load to provide users with the best access they can get.



3.2.2 Agile Model in The Development Of EduPro

Agile Development

The approach we took when developing EduPro is called the Agile method—an approach that promotes flexibility, collaboration, and incremental progress. In elegant simplicity, the method will help us manage the complex and evolving design and developments of the platform around creating courses, individualized tracking of progress, and online engagement in real-time.

How We Used Agile in the Developing EduPro:

1. Flexibility and Adaptability

Our development of the Agile enabled readjustment towards changing user requirements throughout the development process. Some features, like offline access and real-time chat functionality, were noted in the early feedback. Due to the very beginning planning of all these features, whenever a need arises for tags, we could cater to their evolution and seamlessly build them into the evolving platform without displacing the course of the present work.

2. Incremental Development

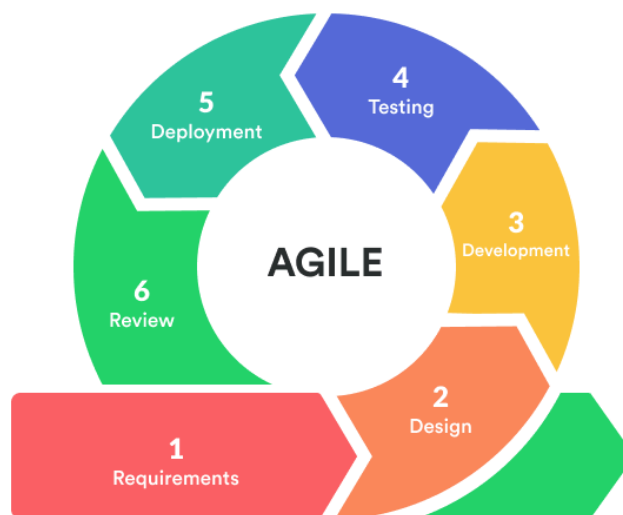
We split the project along the line of smaller sprints, each rolling out particular functionalities like the course creation module, user authentication, and progress-tracking components. Using agile development, we iteratively often provided the early working versions of components for feedback and worked on polished features until acceptable delivery was made.

3. Collaboration and Continuous Feedback

Regular team meetings and sprint reviews kept all developers, designers, and stakeholders aligned. Feedback from teachers who tested the course creation module filtered back into each subsequent sprint, improving ease of use and functionality.

4. Testing and Risk Reduction

Every sprint included testing, which enabled us to identify and fix issues early on, such as database bottlenecks and API mismatches. This reduced our risk by ensuring such features as secure authentication and personalized tracking were practically seamless in their integration.



3.3 Earlier coursework

First of all, what we have accomplished is a result of all those years we spent studying and working in the computer engineering department.

We needed to look for an idea for our project, daily problems we face as engineers are the source of our inspiration. After deciding on the idea, we set the core features that our application should have, then we chose the languages that would serve our goals and we started learning them. We had prior experience in Django, but we learned

Typescript and react native for frontend development. Additionally, our knowledge of JS, HTML, and CSS played a big role.

Chapter 4

Literature review

There are plenty of motivations and causes that push us to think about such a project. There are many traditional educational platforms out there like Udacity and Udemy but lack the community that any learner needs to interact with to develop his skills and knowledge.

An evaluation of the Udacity platform demonstrated an enormous difference exists between educational technology platforms and interactive social media systems. Most learning processes combined with tutor and student interactions as well as course community associations occur outside of Udacity on communication tools such as Circle. Udacity's platform design creates obstacles for users to receive bulletins and contact tutors and participate in meaningful discussions with the learning community. and Udemy but lack the community that any learner needs to interact with to develop his skills and knowledge.

From our experience with Udacity, this suggested a huge gap between e-learning and a good social communication tool. While Udacity offers some good courses, most of the learning, tutor-student, and course-community communication happens on an external tool, like the Circle app. This separation makes it difficult to access announcements, get hold of tutors, or really communicate with any meaningful discussion in the learning community.

The requirements force us to think deeply about the relationship between e-learning practices and social interactions. Our project incorporates social media elements into e-learning systems to create smoother communication paths that enhance learning experiences through improved collaboration among users.

Combined features into one interface enable learners to access their courses alongside community interaction and platform notifications while enhancing the ease of communication.

With EduPro users get everything they need to learn while they develop professional networks as well as earn revenue from making accepted content for our platform based on their skills or experience.

EduPro created its distinct loyalty point system for e-learning which stands apart from all other educational technology firms. Users on EduPro earn reward points that correspond to each purchased course through the system. Acquired loyalty points function as discounts for upcoming ordering opportunities. Through its economy-of-scale model the system entices students with enhanced partnerships to save money on educational material while offering opportunities for students to pursue more courses. The rewards structure in EduPro's system both boosts learning experiences and makes premium education available at more affordable prices.

Chapter 5

Methodology

All project development follows systematic approaches to construct an e-learning system which includes social media capabilities. The launch of development started after dealing with user requirements alongside the flaws of current e-learning systems that existed at a large scale. We chose React TypeScript (React TSX) for web front-end development and Django for back-end responsibilities together with React Native for mobile development to ensure smooth user interactions. The integration of these technologies under one framework results in an extensive solution with scalability features and cross-device compatibility. Our team used Agile development practices to enable work cycle evolution alongside continuous user feedback for fast adjustments that met user requirements. A system of sequential steps makes it possible to develop an e-learning ecosystem that supports social learning throughout connected educational spaces.

5.1 Application FrontEnd Development

The front-end development of EduPro sought to develop an interface that would provide a seamless user experience across not only the web but also the mobile aspect. React was used for the web application while React Native was used to develop

mobile applications. Both technologies are built on JavaScript and offer the flexibility, performance, and scalability to cater to the ever-changing demands of the platform.

React for Web

The web front end of EduPro was built with React as the primary framework. It provided rich capabilities, along with the right kind of developer-friendly features. A component-based architecture enabled a reusable and modular element, and thus, maintained both uniformity and efficiency in the application. For example, the various UI components, such as navigation menus, progress trackers, and forms, were designed on the very first occasion and used throughout the platform.

The Virtual DOM of React enables the effective rendering and updating of the user interface, thus facilitating a constant level of smoothness in operation, even with complex features working in real-time, such as the design of progress trackers and dynamic course recommendations. This, combined with React's abilities to provide advanced state management tools such as Redux and the Context API, enables simple management across user sessions, course progress, and any dynamic information rendered across page loads. This ensured that users enjoyed seamless navigation and interaction with the platform.

The front-end development of EduPro was working on an application that will not only bring a seamless experience to the web interface but also push technology on the mobile interface. React was used for building the web application, while React Native was utilized for mobile application development. Both are built with JavaScript and bring in the flexibility, performance, and scalability most ideally suited for the evolving needs of the platform.

Web using React

The EduPro was built as its web front end using React as its core framework. It provided rich features with just the right amount of developer-friendly capacities. Its component architecture enabled reusability and modularity of components; this maintained uniformity and improved overall efficiency. For example, UI components such as navigation menus, trackers, and forms were designed and used throughout the platform right from the start.

React's Virtual DOM allows the rendering and updating of the user interface in an efficient manner; therefore, with complex features working in real-time, as progress trackers design and dynamic course recommendations, applications continue to operate smoothly. This enabled React to take advantage of advanced state management tools like Redux and the Context API to easily manage information across user sessions, course progression, and dynamic information included with page loads. This made for an enjoyable and seamless experience when users navigated through and interacted with the platform.

React Native for Mobile Development

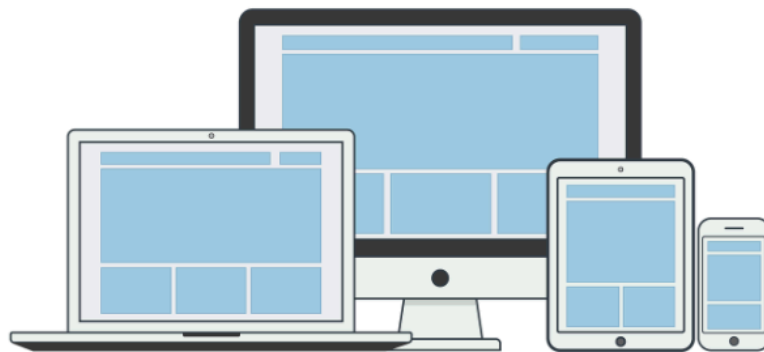
React Native, in combination with its native counterparts, allows the development of the application for the two major competitive smart device platforms—iOS and Android—from a single code base. The cross-platform functionality means timely release and less resource consumption of an application built with React Native. Native components provide fast mobile applications and guarantee a smooth user experience, almost like that of native apps.

Also, the fact that Ferris was able to utilize shared logic with React allowed them to reuse app features and components such as authentication flows and course browsing on both the web and mobile devices. This ensured greater efficiency during the development phase and a more consistent design and functionality delivery across both platforms.

Strengths and Benefits

React and React Native aided a lot in EduPro development. It also enabled a very large pool of developers to work with several libraries, simplifying the integration of rather complicated functions, such as authentication, push notifications, and file upload. The easy modularity and expandable frameworks of these technologies were guaranteed for the subsequent addition of future features, such as live video classes and analytics based on artificial intelligence.

Simultaneously, React and React Native were alike; this creates the best user experience, as the user can hardly see the variance in switching between the web and mobile apps.



5.2 Application Backend Development

Django was used to build EduPro's backend. Which is a high-level open-source web framework written in Python. It follows model-template-views the architectural pattern. The main purpose of Django is to simplify the development of large, database-based websites. In particular, the framework stresses the reusability and "pluggability" of its components, as little code as possible, minimal coupling, fast development, and the mantra of 'don't repeat yourself' (DRY).

We chose Django because it has built-in tools that provide various advantages in development, such as authentication, which includes functionalities like user login, registration, permission manipulation, URL routing, database management, and many others. Also, we needed to handle the security since we have payment procedures.

How we built the backend?

First, we planned the features, and then based on them we defined the best database schema in parallel with backend development to ensure that all data relationships were correctly mapped.

Second, we created models that define the database structure, primary and foreign keys, data types, etc. Django's ORM automatically handles database queries.

SQLite DB was used in the project as the database that Backend side will interact with. We used a relational Database since we have sensitive payment, course content data that we need to ensure its integrity and it doesn't affect any other tables so it can be edited once only.

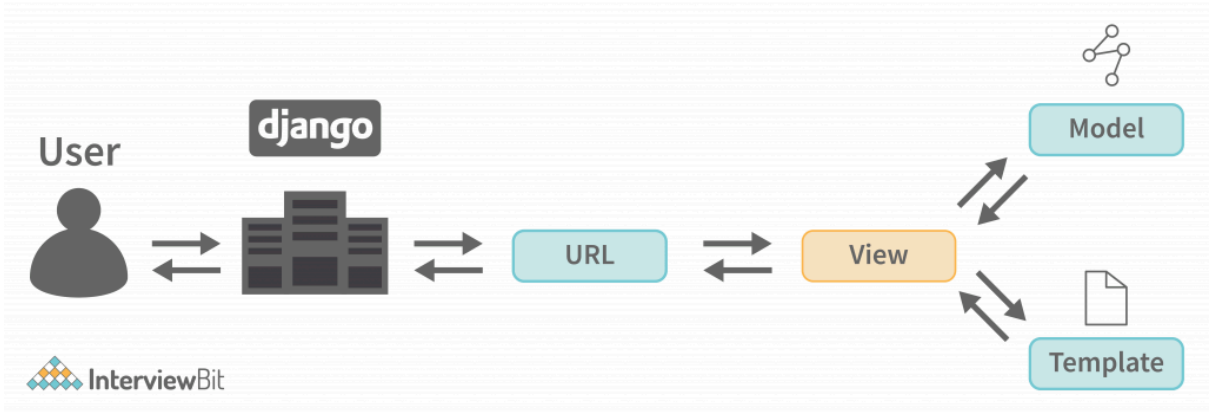
Third, we used Django REST framework serializer to convert the model into JSON format and visa versa to validate incoming data for all APIs requests.

Fourth, we built the repository layer to encapsulate database logic. Inside the repository, we declare all functions we need to interact with the data. It keeps database interactions centralized.



























Fifth, we created a component layer that implements the core functionalities and the methods we declared inside the repository. This layer contains the business logic and handles operations.

sixth, we built the RESTful API methods inside controllers, they receive requests, call necessary components, and return JSON responses to the frontend.

Seventh, the Django URL routing system mapped API endpoints to the appropriate controllers.



```
> .venv library root
└─ edupro
  ├── components
  ├── controllers
  ├── migrations
  ├── model
  ├── repositories
  ├── routes
  ├── serilaizers
  ├── __init__.py
  ├── admin.py
  ├── apps.py
  ├── auth.py
  ├── Constants.py
  ├── models.py
  ├── tests.py
  └── views.py
└─ edupro_conf
  ├── images
  ├── media
  ├── .gitignore
  ├── courses.json
  └── db.sqlite3
```

- >  edupro_cartcourse
- >  edupro_chat
- >  edupro_chatmessage
- >  edupro_chatuser
- >  edupro_course
- >  edupro_courseobjective
- >  edupro_courserate
- >  edupro_coursesection
- >  edupro_coursesectioncodingexercise
- >  edupro_coursesectioncodingexercisetestcase
- >  edupro_coursesectionquiz
- >  edupro_coursesectionquizanswer
- >  edupro_coursesectiontopic
- >  edupro_courseuser
- >  edupro_favoritecourse
- >  edupro_follow
- >  edupro_major
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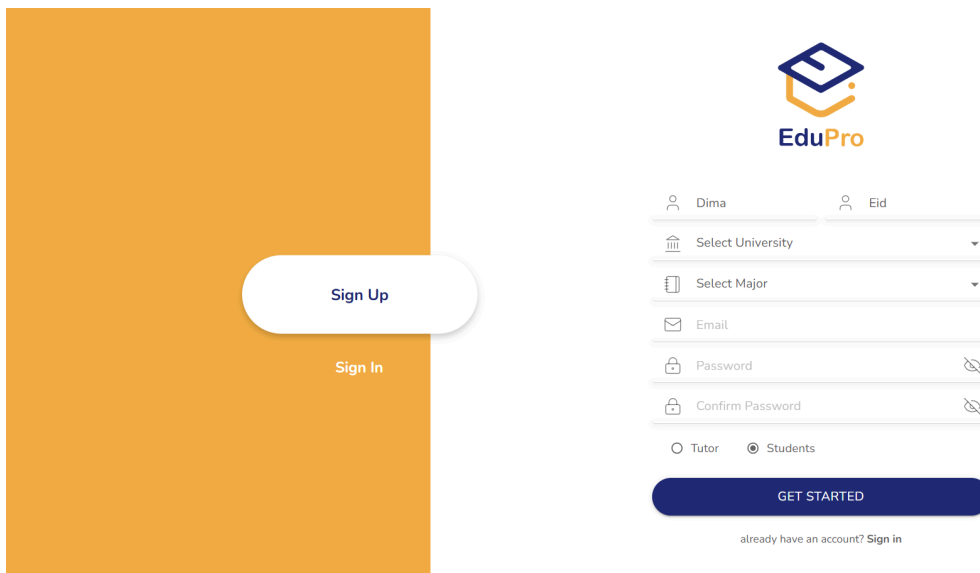
Chapter 6

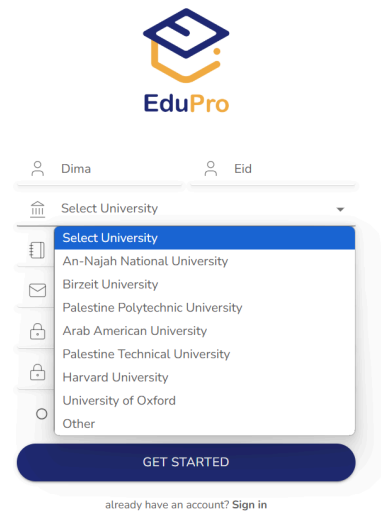
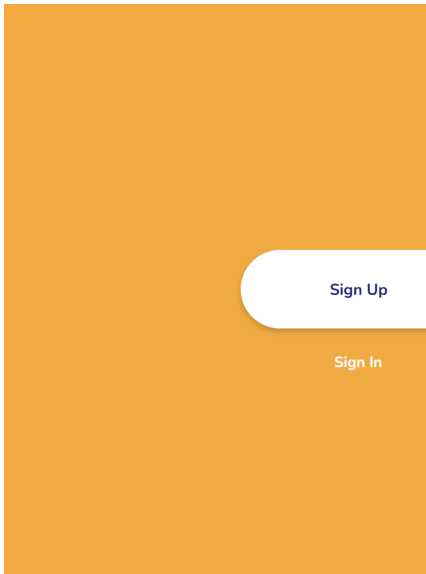
System Features and Implementation

EduPro offers all the features that any learner would find desirable, and so it caters to both students and tutors. In this section, we will describe each feature in detail for both web and mobile platforms, highlighting its functionality and complete user flows. Besides, we will also explain the technologies and tools used for these functionalities, guaranteeing a smooth experience among platforms. Finally, we will demonstrate how these characteristics contribute to learning and teaching while providing consistency and usability.

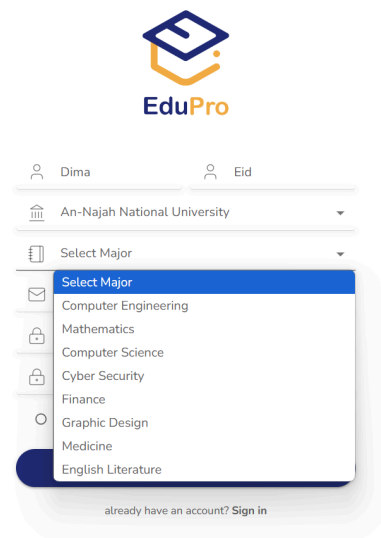
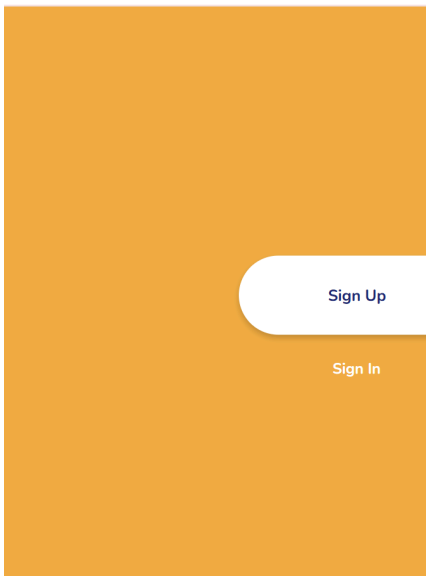
6.1 Signup

A user enters the required information to be able to sign up with EduPro, as we can see on the screen above.

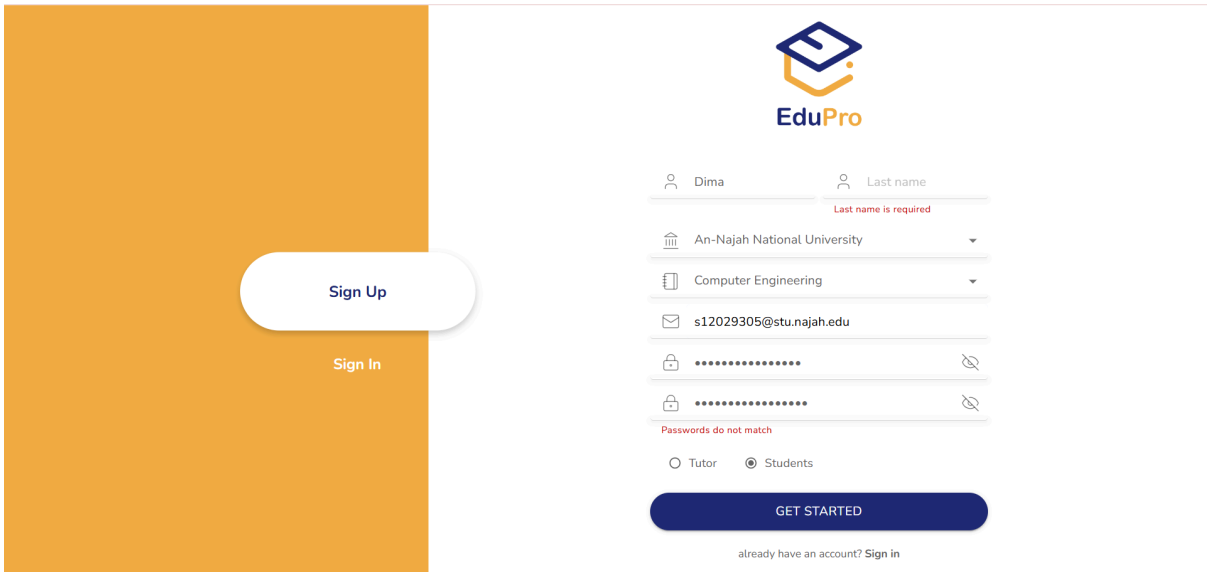




If the user's university is listed then his university majors will be automatically listed. We added the college to serve users' networks.



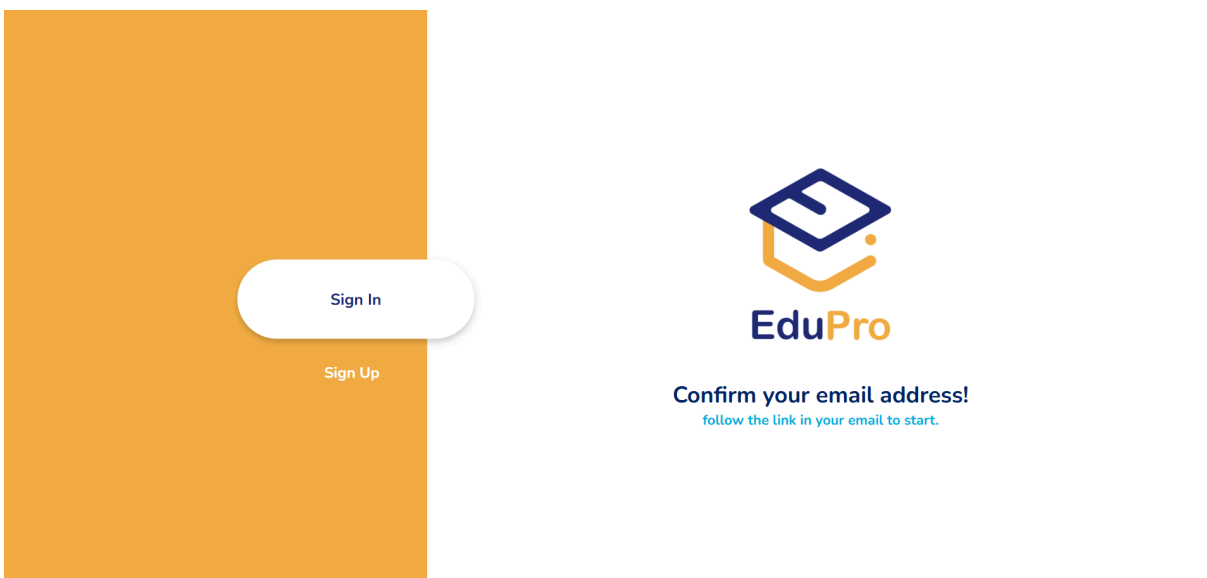
Here I have chosen NNU and its majors were listed, if the user chooses another university another major related to that university will be listed. Users can add their college or university if not listed.



The sign-up process requires to fill proper data, either way error msg will be displayed.

6.2 Verification

When GET STARTED button is clicked, a verification link that contains the token will be sent to the user's email.



Verify your email Inbox x



semahodali@gmail.com
to me

Fri, 25 Oct 2024, 15:32

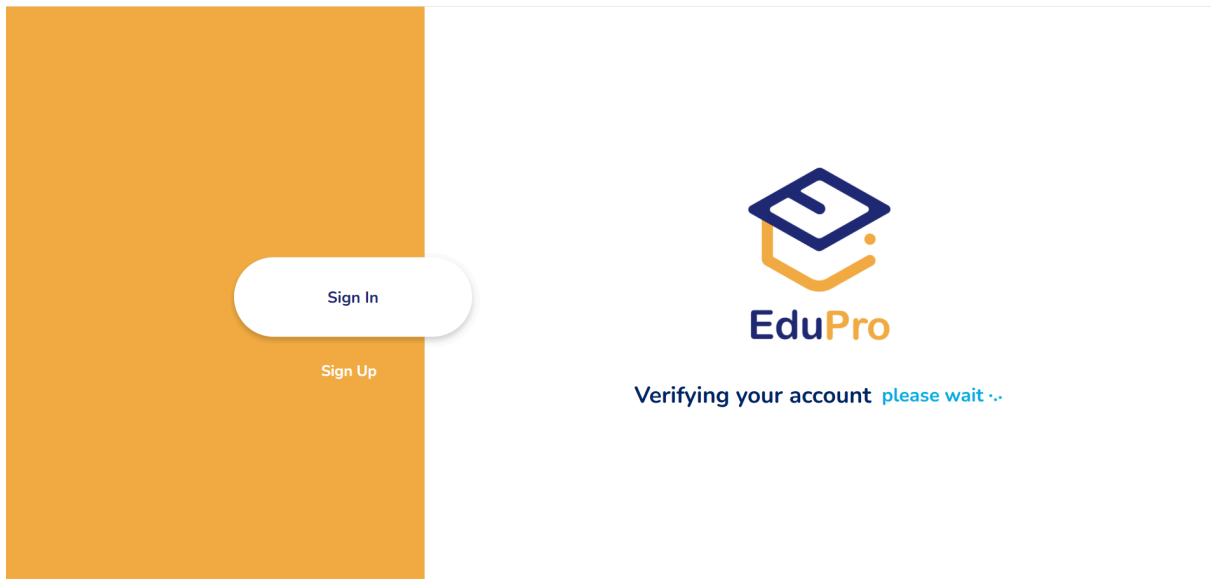
Please click the link below to verify your email:

http://localhost:3000/verify?token=eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJ1c2VyX2lkjjoXLCJleHAiOiJF3MzAyOTE4NzE3E3mlhdCI6MTcyOTg1OTU3MX0.0RW_jyDjrGhwzp16dlugjFNSUejgzm3siu7Qd6JXsMM

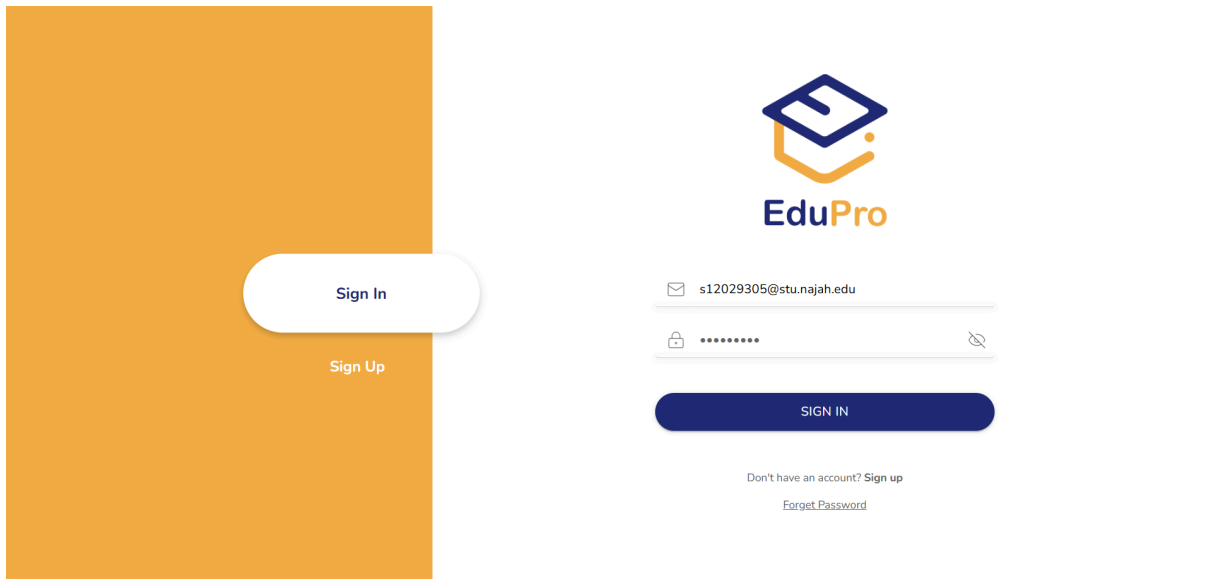
This email has been checked for viruses by Avast antivirus software.
www.avast.com

Reply Forward

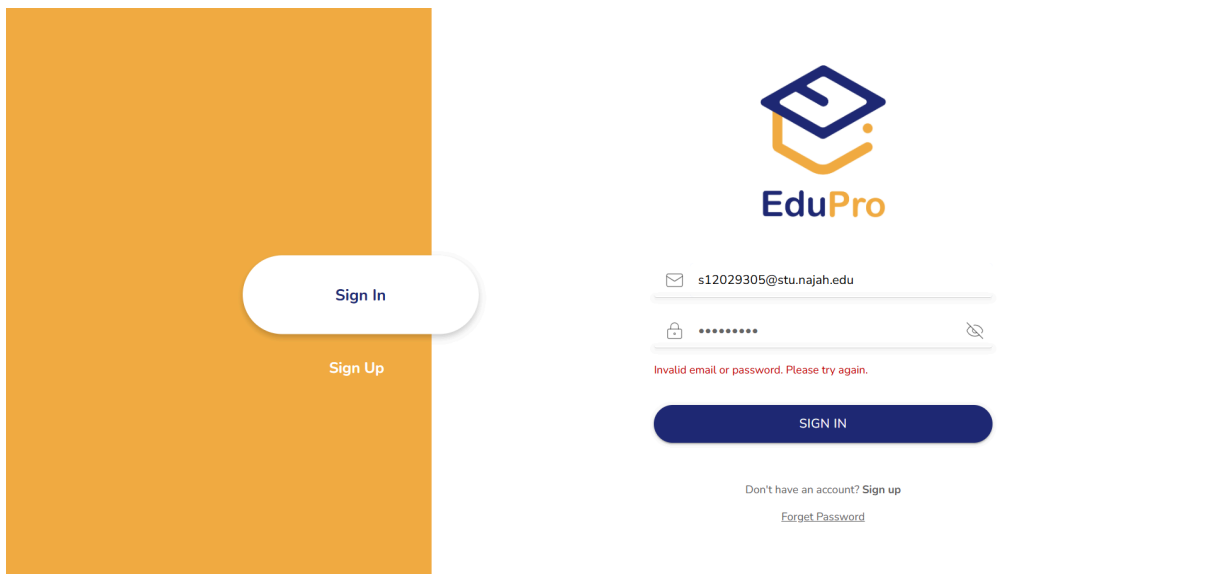
When this link is clicked it will be directed temporarily into the verification page that is displayed for less than a second to redirect the user to the login page.



6.3 Login Page

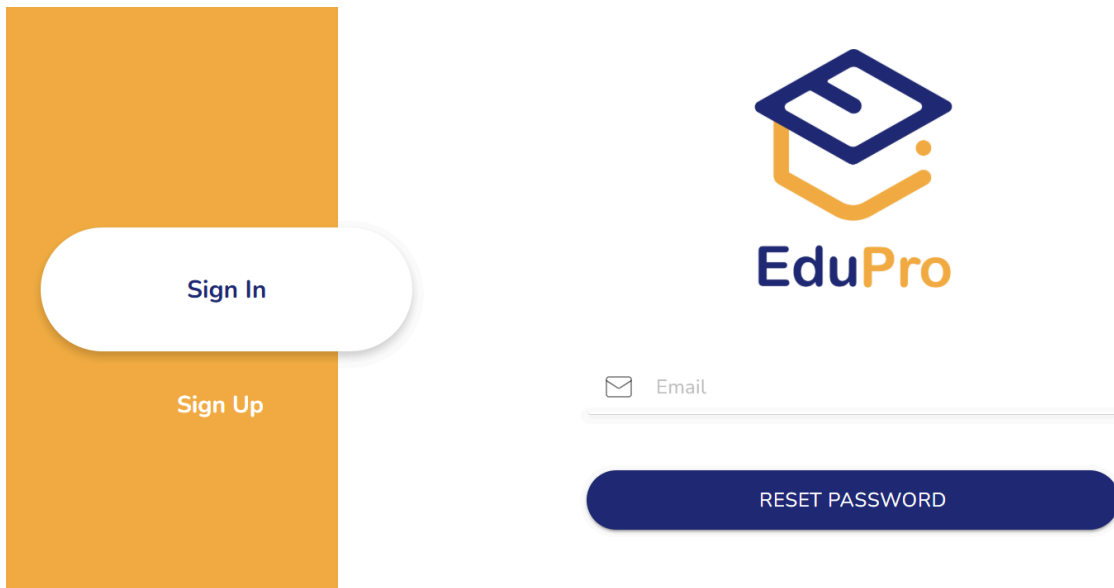


The user enters his email and password.

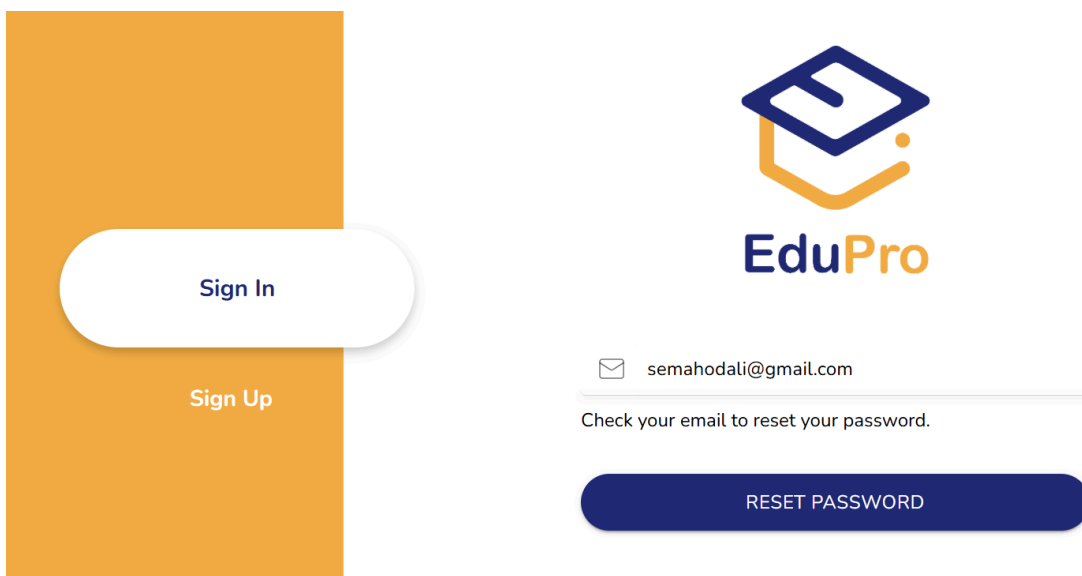


Correct password validation as we can see.

6.4 Forget Password



when forgot password button from signin page clicked forget password page open



When user Email entered an email wit reset password link sent to user

(EduPro) Reset your password External Inbox x



Semahodali2019@hotmail.com Hodali <semahodali@gmail.com>
to me ▾

11:39 PM (0 minutes ago) ☆ ↶ ⋮

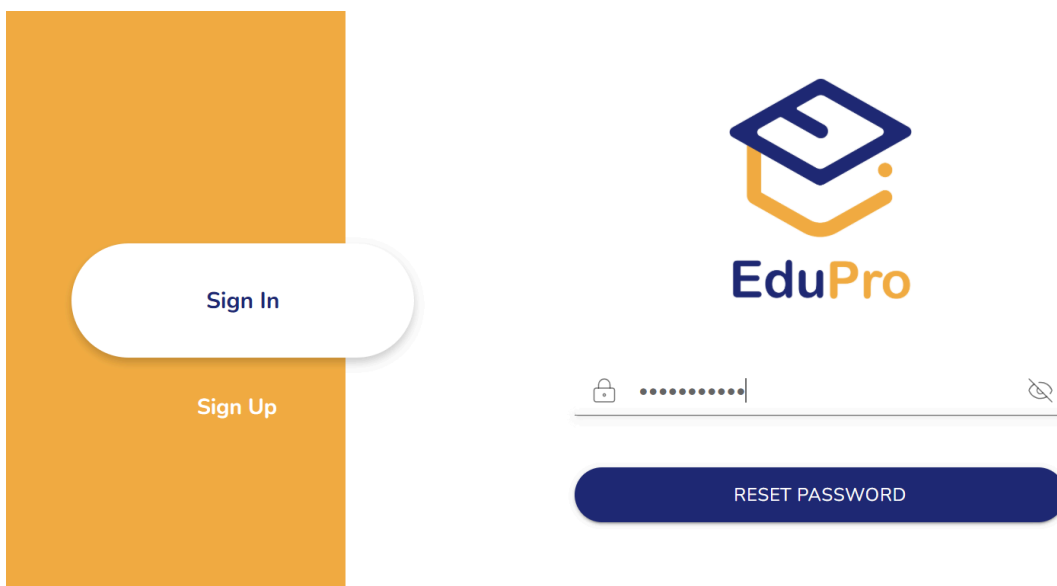
Please click the link below to reset your password

<http://localhost:reset?5173/?token=eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJ1c2VyX2lkIjo0LCJleHAiOjE3Mzg1MjkwMzcsImhhdCI6MTczODA5NjczN30.aRIPMPgyf24WQOfBb8BNH4Y9YecSWZDinkC1Sw75qPQ>

↶ Reply

↷ Forward

This link will redirect the user to reset password page

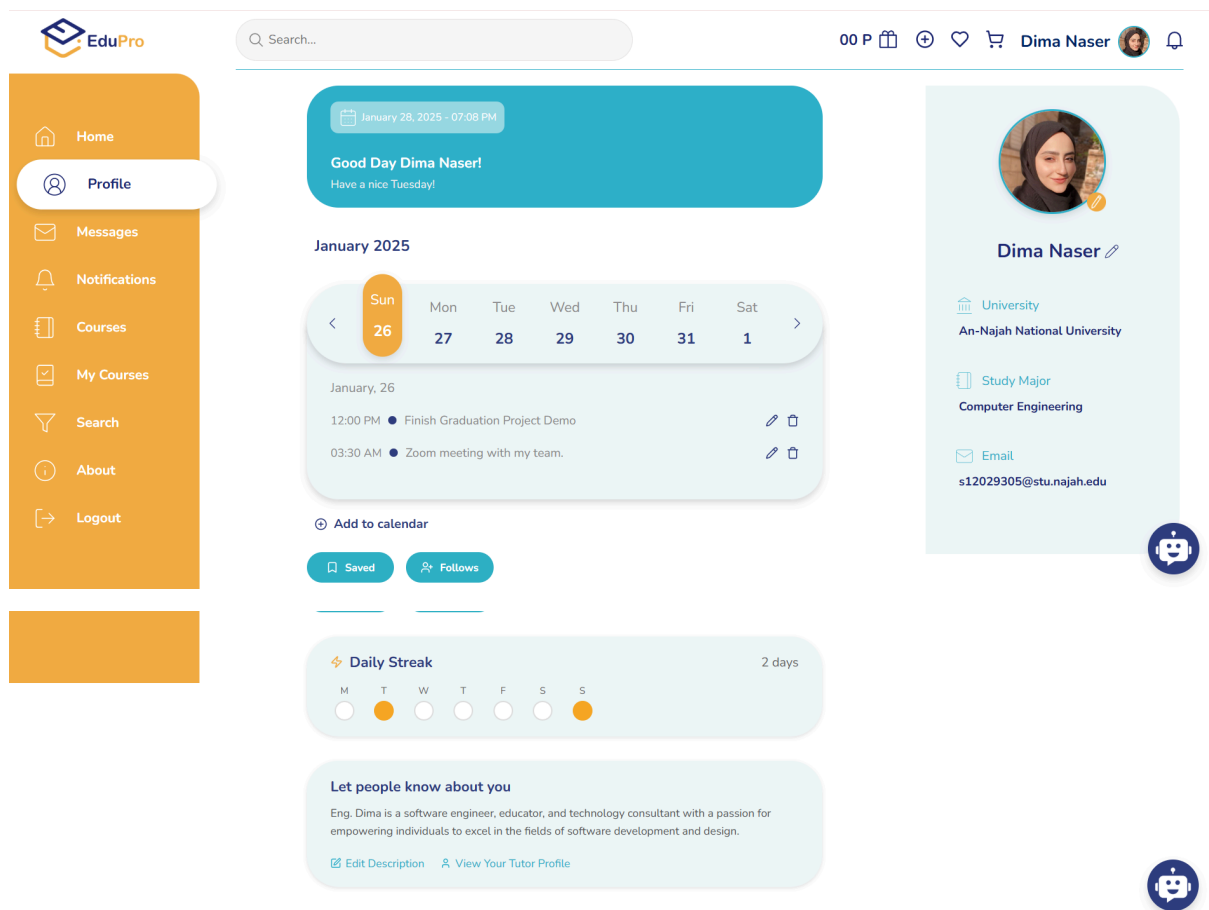


When reset password clicked user redirected to signin page to signin with the new password

EduPro Application Interface:

Since EduPro has 3 user types, admin student, and tutor, a tutor has a bit more tools than a normal user or student so we are going to explain the difference between them by providing screenshots of the user interface.

6.5 Profile Page

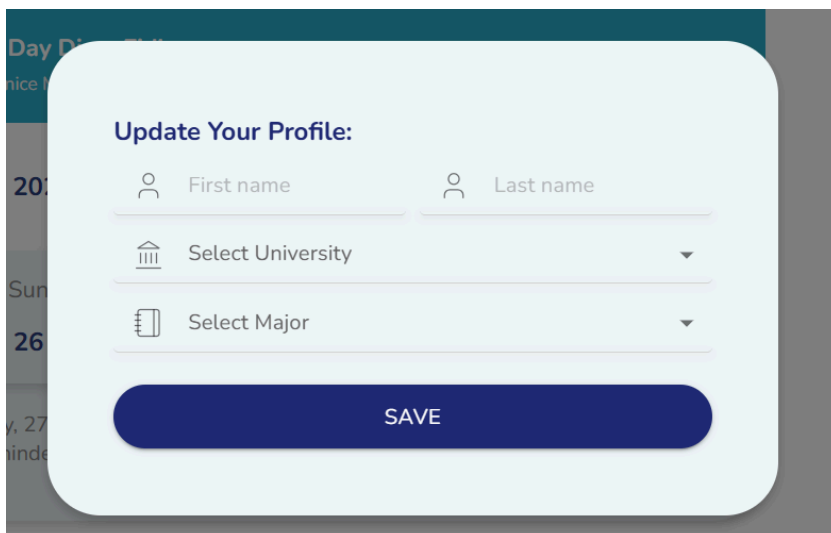
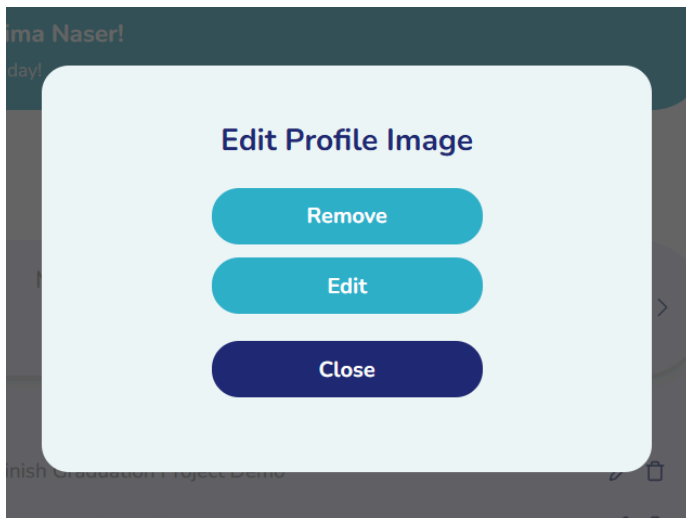


This is a personal page for each user we have in the system.

6.5.1 Profile Card

It displays the user's name, major, and email. Users can change their profile photos or edit their information. Additionally, users can view their saved posts or the tutors they follow. When the pin icon on the profile image is clicked this modal will appear:

The user can either upload a new image or remove it then the default image will be displayed.



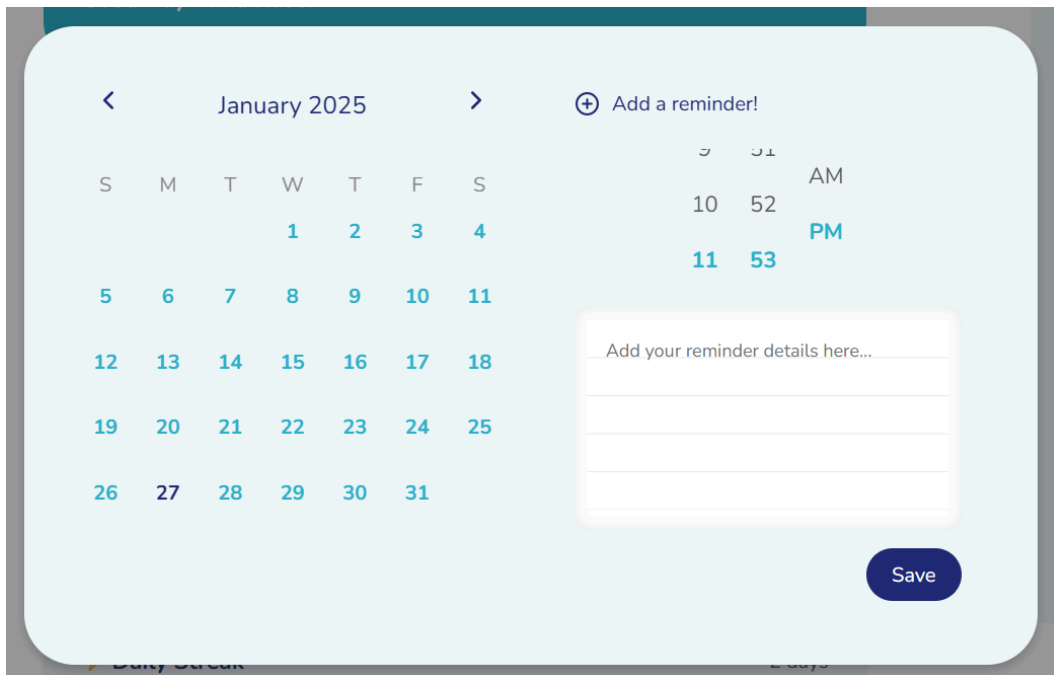
6.5.2 Welcoming box

It welcomes the student with a welcoming message about the current time date time,



6.5.3 Calendar Component

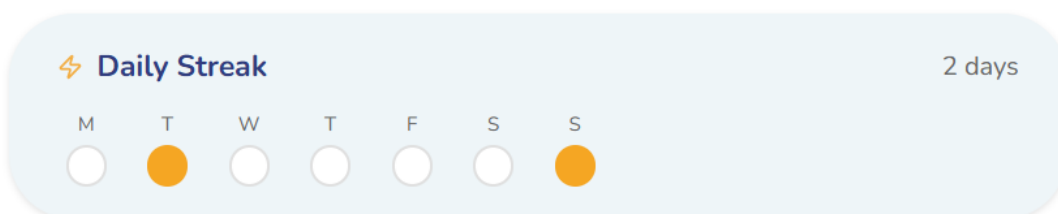
Users can write all their notes inside the calendar, specifying the year, month, day, and the note itself. They can also edit or delete their notes. When a user logs into their account, the calendar automatically opens to the current date or the date on which the user logged in. Users can add a calendar by clicking on the + add to calendar button.



When the user enters the reminder, the time displayed is the current date and time to make it more user-friendly. Users can choose a date, time, and note then click on save, and a new note will automatically saved and displayed.

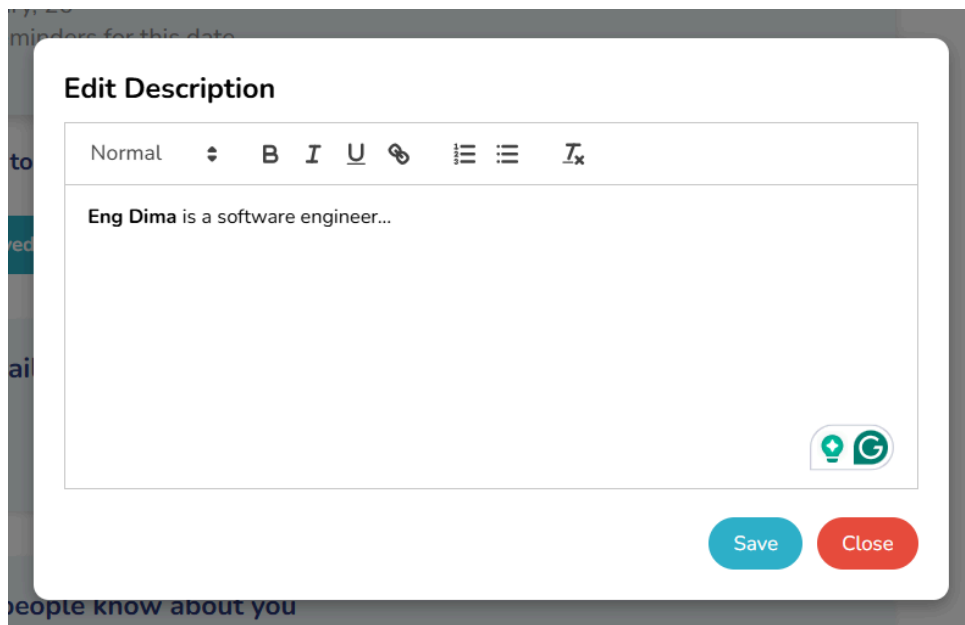
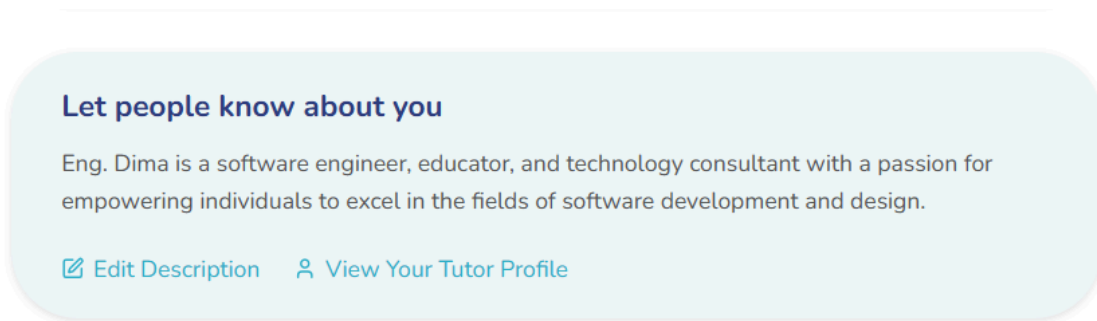
6.5.4 Daily streak

This component is designed to motivate our users to engage with our application, as the tracker shows the user how many times a week they use our app.



6.5.5 Tutor Description Component

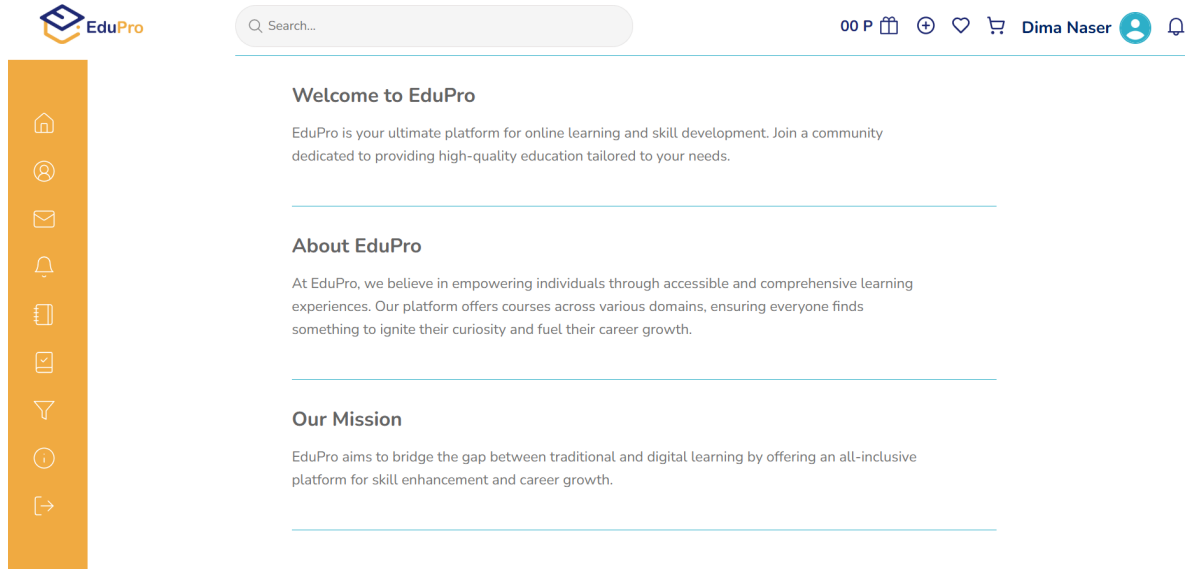
When the user is a tutor, this component will appear on their profile. This description is entered by the tutor to be displayed on their tutor profile, which all platform users can see. The tutor can add or edit the description also he can navigate to his profile to see what it looks like.



Edit description when clicked rich text editor appears to enable tutors to enter the description they like.

6.6 About Page

This page shows what is EduPro platform, what does it do, and our engineers.



What Our Students Say

"EduPro transformed my career! The courses are practical, engaging, and easy to follow."

- John Doe

"Thanks to EduPro, I was able to land my dream job. The content quality is unmatched!"

- Jane Smith

Meet Our Team



Dima Eid

Software Engineer

Dima is a dedicated software engineer with a passion for building scalable and robust systems, ensuring every solution is efficient and user-friendly.



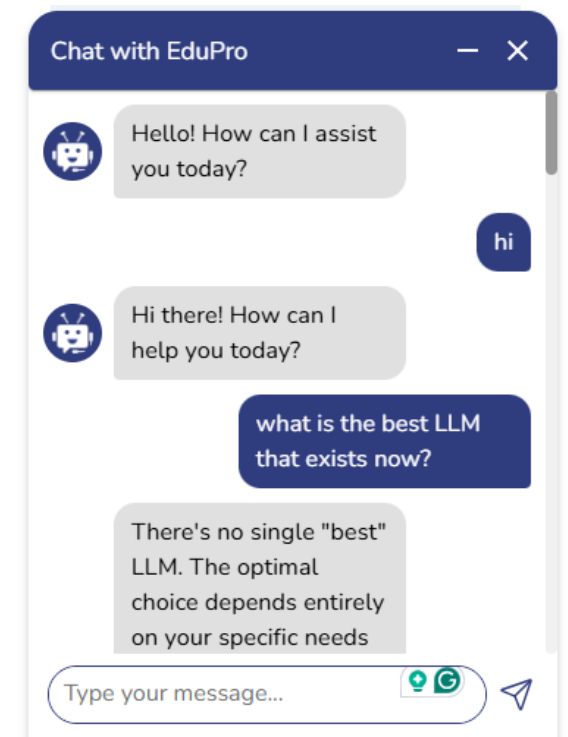
Sema Hodali

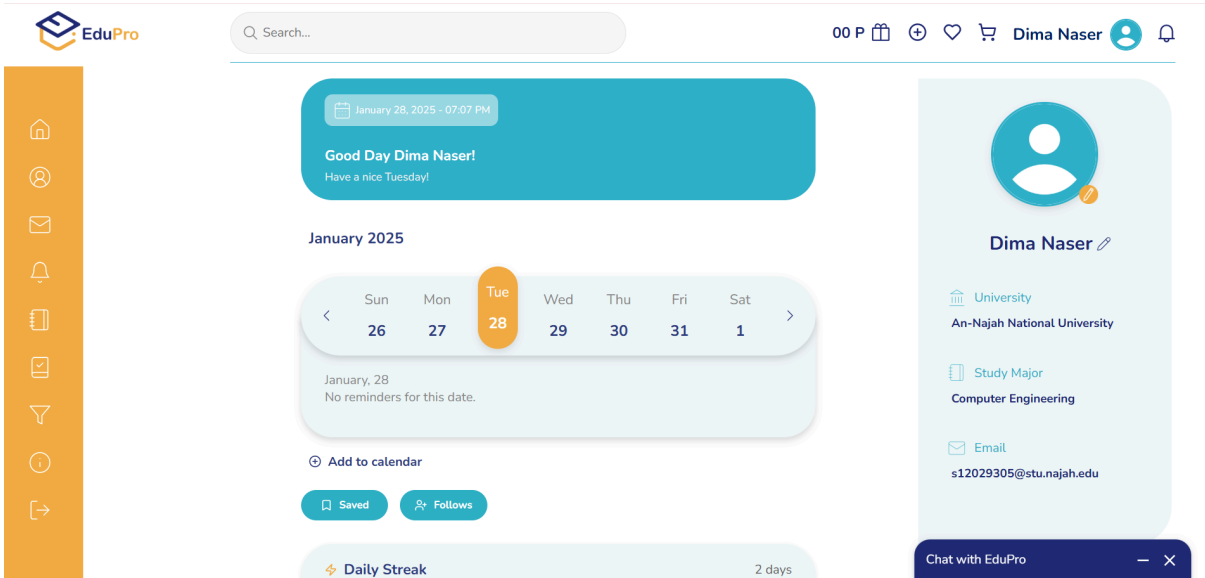
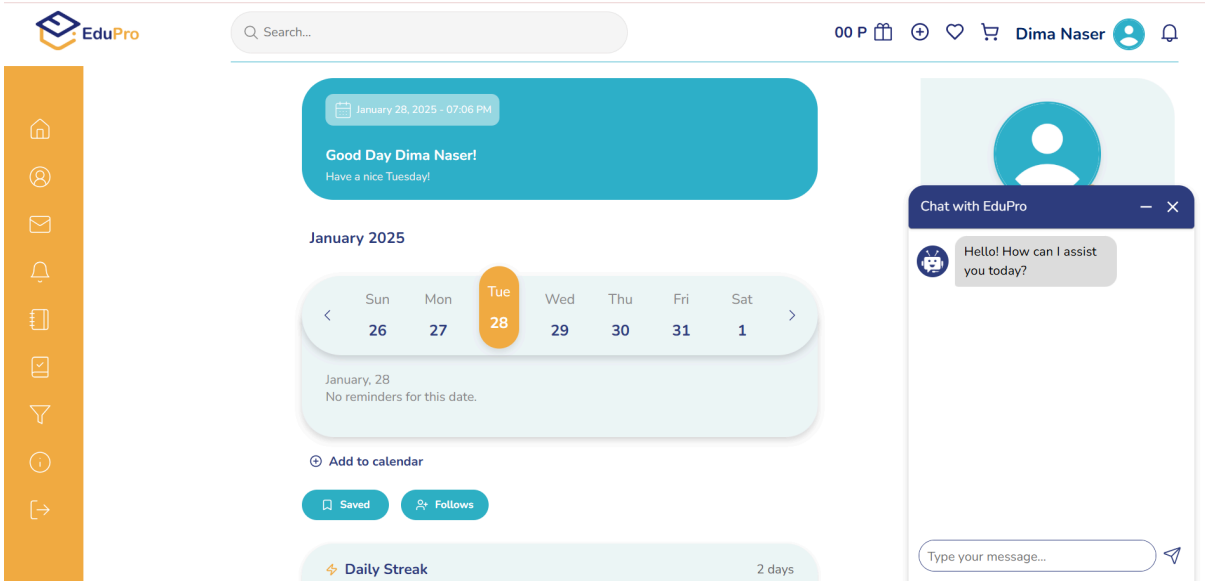
Software Engineer

Sema is an experienced software engineer with expertise in front-end technologies, delivering outstanding user experiences and modern designs.

6.7 Chatbot

We created a Gemini-based chatbot, one of the latest state-of-the-art AI and LLM models formulated in conversational AI and natural language understanding. Gemini leverages deep machine learning methods and massive dataset training to make the chatbot helpful, context-aware, and adaptive. The chatbot can also process complicated questions, fulfill individual requests, and smoothly integrate with different applications to improve user interaction.

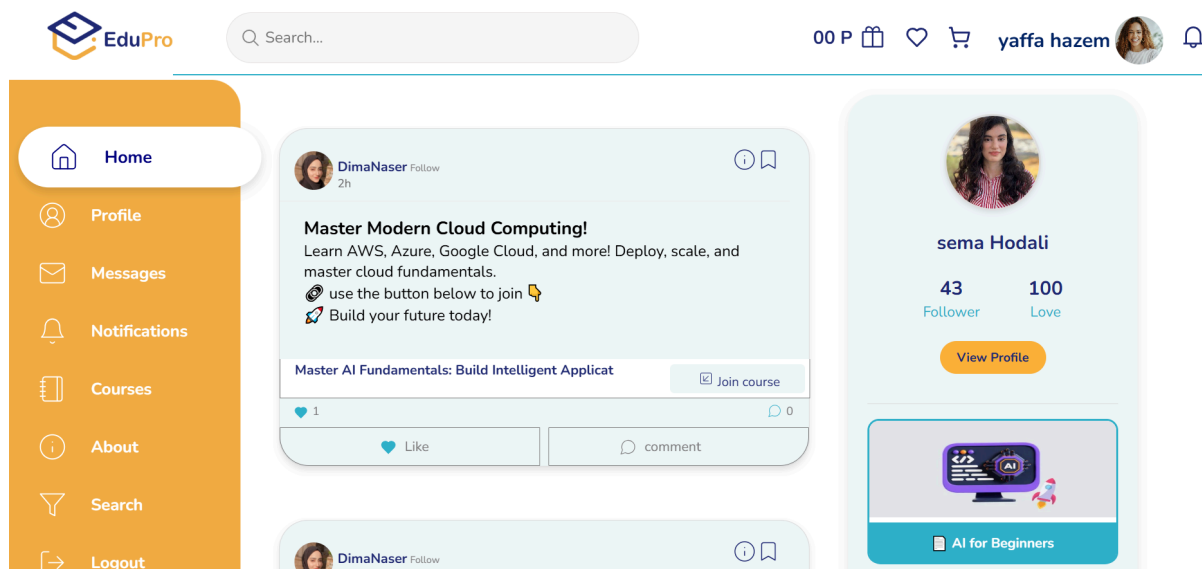




This is how the chatbot looks on a page when it is closed and opened.

6.8 Home

Home is the main page for socializing with EduPro community its the bridge between courses and social media with posts and suggested tutor and course card



In the home page users can show tutors posts which can be attached with pictures and courses, users can join the course directly from the button shown in the post for easier user experience , users can like, comment and interact with posts and display the number of likes and comments in each post, and save posts to find it later using the book mark that user can find later in user profile.



DimaNaser Follow

21h



🚀 Become a Full-Stack Developer Today!

Master both **frontend** and **backend** with our **Full-Stack Development: Practicing Frontend and Backend** course! 🌐

📖 What You'll Learn:

- ✅ Build stunning websites with HTML, CSS, and JavaScript.
- ✅ Create dynamic apps using **React**, **Node.js**, and **MongoDB**.
- 💡 **Perfect for beginners and professionals** looking to enhance their skills!

🎯 **Enroll Now** and start building your future today.

💬 Questions? Let's chat below! 🙋



Become Full Stack Developer

Full-Stack Development Practicing FrontEnd And BackEnd

📌 Join course

❤️ 3

💬 2

❤️ Like

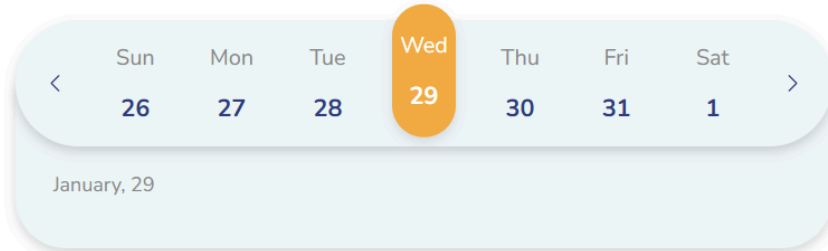
💬 comment

January 29, 2025 - 07:03 PM

Good Day sema Hodali!

Have a nice Wednesday!

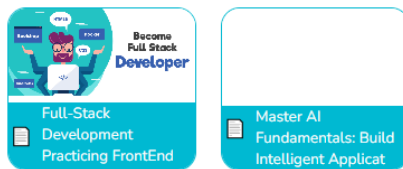
January 2025



+ Add to calendar

🔖 Saved 👤 Follows


My Courses



in the profile page user can find their saved posts and click to one of them to go to save posts page



Your saved Posts


 **DimaNaser** Follow
3h

Master Modern Cloud Computing!
Learn AWS, Azure, Google Cloud, and more! Deploy, scale, and master cloud fundamentals.
📍 use the button below to join 🖱️
🚀 Build your future today!

Master AI Fundamentals: Build Intelligent Applicat [Join course](#)

❤️ 1 💬 1

👍 Like 💬 comment

 **DimaNaser** Follow
21h

User can comment in the posts and ask questions

Comments



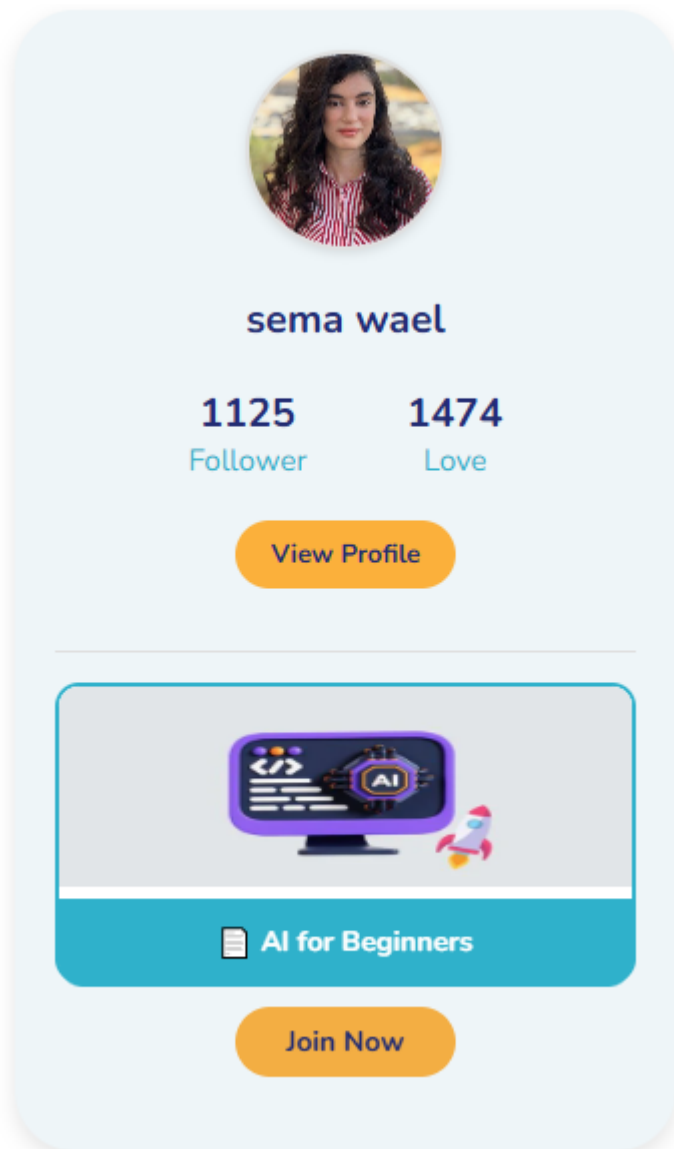
yaffahazem

great course! can I ask about course prerequisites?



Write a comment





The recommendation home card contains suggested courses and tutor based on users enrolled courses titles and description ,this system utilises **TF-IDF vectorizer** to analyze course title and description and transfer them to numerical features, and **cosine similarity** to recommend courses and tutors meet with user interest.

The system selects only highly relevant courses (after already enrolled courses excluded) to display in suggest card in home page.

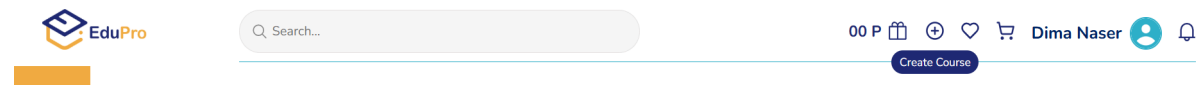
```

218 class SuggestedCoursesComponent: 2 usages  ± DimaNEid *
219     @staticmethod 1 usage  ± DimaNEid *
220     def suggesting_courses(user_id):
221         list = [course.id for course in CourseUserComponent.get_user_courses(user_id)]
222
223         courses = CourseComponent.get_course()
224         serialized_courses = CourseSerializer(courses, many=True).data
225
226         with open('courses.json', 'w') as json_file:
227             json.dump(serialized_courses, json_file, indent=4)
228
229         courses = pd.read_json(path_or_buf='courses.json', encoding='ISO-8859-1')
230         tf = TfidfVectorizer(analyzer='word', ngram_range=(1, 3), min_df=0.0, stop_words='english')
231         tfidf_matrix = tf.fit_transform(courses['title']+['description'])
232         cosine_similarities = linear_kernel(tfidf_matrix, tfidf_matrix)
233         results = {}
234         for idx, row in courses.iterrows():
235             similar_indices = cosine_similarities[idx].argsort()[::-100:-1]
236             similar_items = [(cosine_similarities[idx][i], courses['id'][i]) for i in similar_indices]
237             results[row['id']] = similar_items[1:]
238
239         returnedData = []
240
241         for i in range(0, len(results)):
242             if (courses['id'][i] not in list):
243                 continue
244             for j in range(0, len(results[courses['id'][i]])):
245                 if (results[courses['id'][i]][j][0] == 0):
246                     continue
247                 returnedData.append(results[courses['id'][i]][j][1])
248         return CourseRepository.get_courses_by_ids(returnedData, approved=True)
249

```

6.9 Courses

Tutors have created course tools in the header, which students do not have.



6.9.1 create course main page

We provide flexible and dynamic flow to enable tutors to create course main information easily. Each field has max number of characters that the user can enter, to reserve a well-structured course.

A screenshot of the 'create course main page' form. On the left is a vertical orange sidebar with icons for home, profile, messages, notifications, calendar, document, funnel, and share. The main form area is light blue and contains the following fields:

- Course Title**: Text input with placeholder 'e.g., CSS for Beginners'.
- Course Sub Title**: Text input with placeholder 'e.g., Master the fundamentals of CSS'.
- Description**: Rich text editor with a toolbar (Normal, Bold, Italic, Underline, Link, Unlink, Bulleted List, Numbered List, Indent, Outdent) and a text area with placeholder 'Write a detailed description'. Below the text area is a character count '0/1000 characters'.
- Category**: Dropdown menu with placeholder 'Choose a category'.
- Prerequisites**: Text input with placeholder 'Required Knowledge or Skills for the course'.
- Target Audience**: Dropdown menu with placeholder 'Select the level of your audience'.
- Currency**: Dropdown menu with 'USD (\$)' selected.
- Pricing**: Dropdown menu with '\$15.00' selected.
- What will students learn in your course?**: Text input with placeholder 'Objective 1'.
- Course Image**: Dashed border box with placeholder 'Upload your course image (750x422 pixels)' and an upload icon.
- Promotional Video**: Dashed border box with placeholder 'Upload a promotional video' and an upload icon.

At the bottom of the form is a dark blue button labeled 'Next'.

Category

Choose a category

- Choose a category
- Development
- Business
- Finance & Accounting
- IT & Software
- AI
- Design
- Photography & Video
- Health & Fitness
- Other

Target Audience

Select the level of your audience.

- Select the level of your audience.
- Beginner
- Intermediate
- Advanced

In our system, we support 2 currencies, dollar and shakel. The primary currency is dollar but it can be changed to shakel based on the current currency pricing.

Currency

USD (\$)

- USD (\$)
- ILS (₪)

Pricing

\$15.00

Objective 1

Currency

ILS (₪)

What will students learn in your course?

Objective 1

Pricing

- ₪53.70
- ₪53.70
- ₪71.60
- ₪89.50

Tutors can add up to ten objectives for their courses.

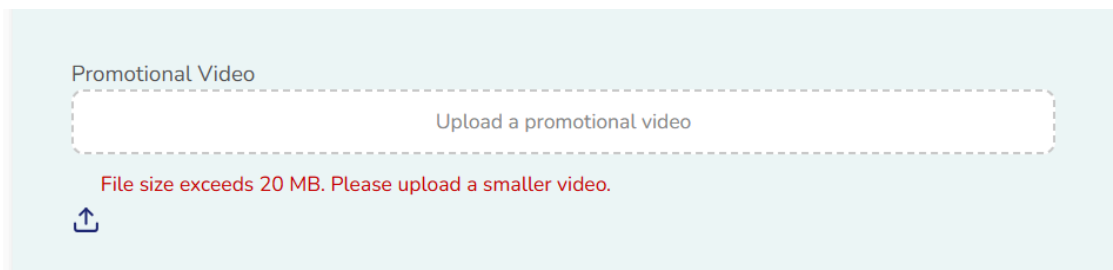
What will students learn in your course?

Users have the flexibility to add cover image for their courses and can set the image properly.

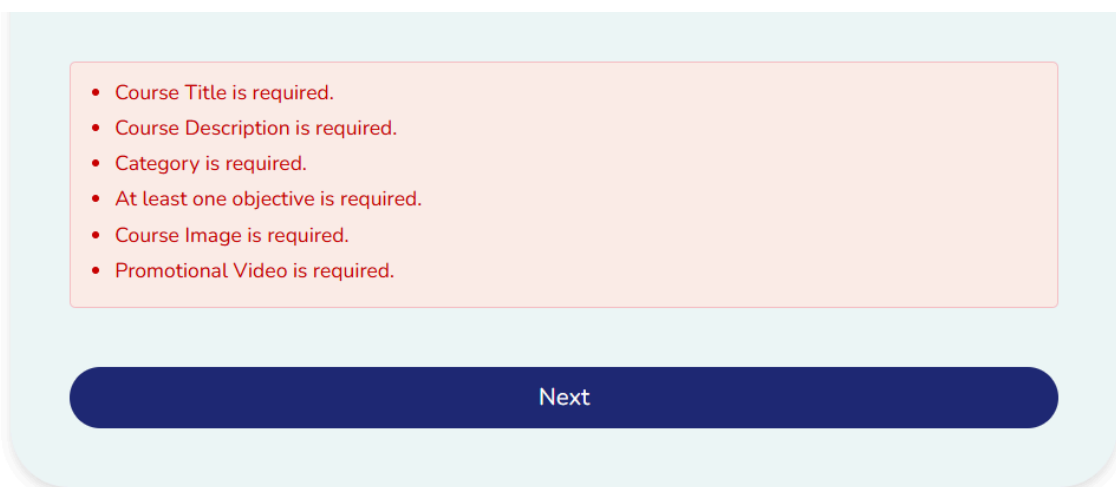




This is the image after it's cropped.

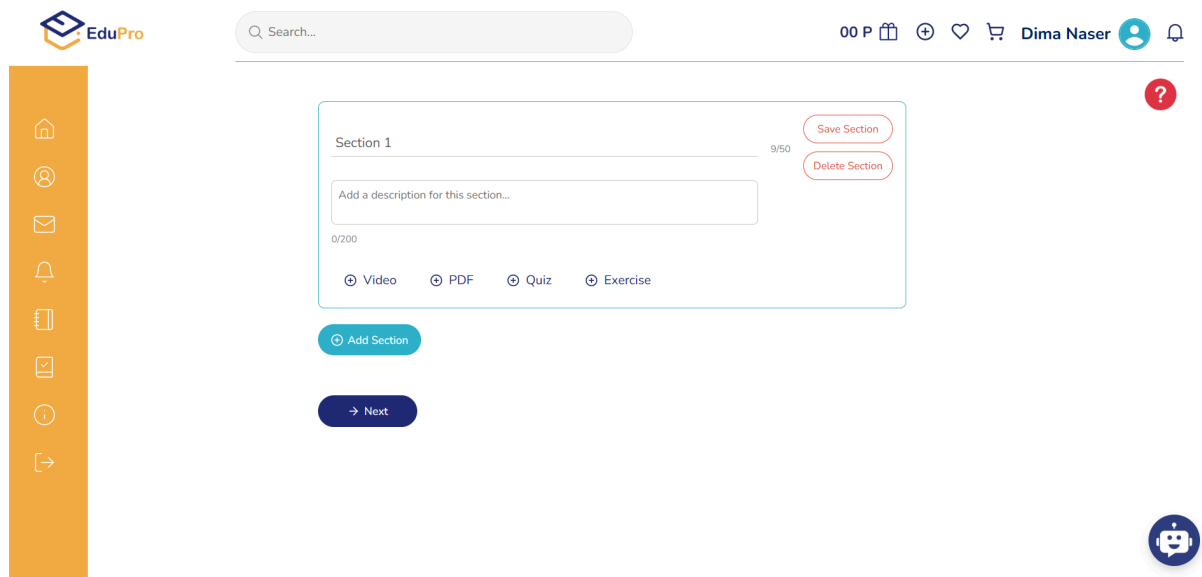


Promotional videos shouldn't be big because they should have a limited duration, we made sure high-quality videos can be uploaded.

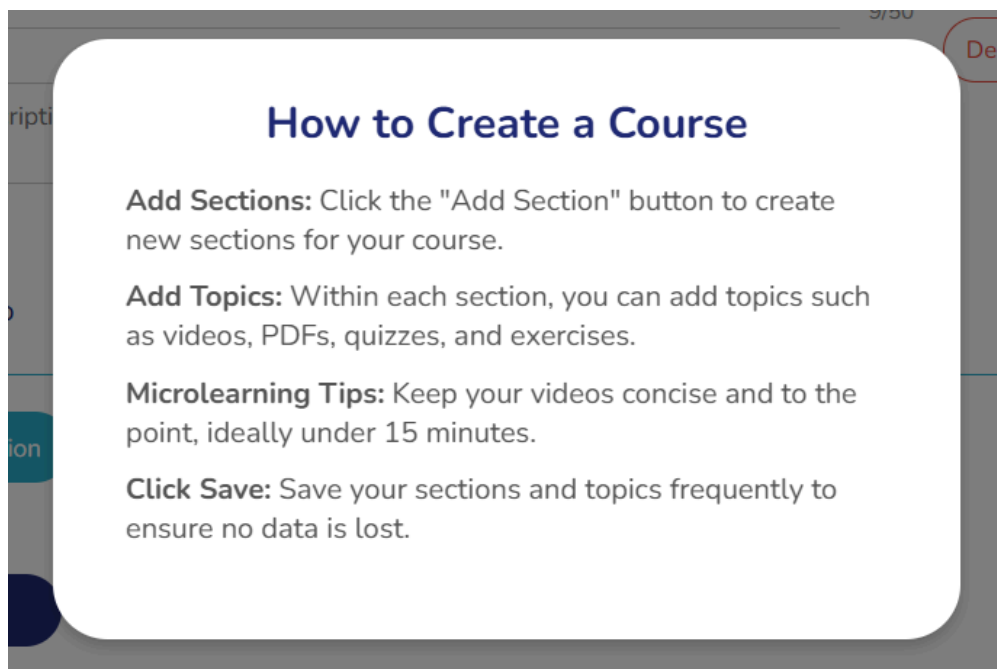


The process cannot be completed unless the tutor filled all fields.

6.9.2 Create Course Structure Page



Users cannot access this page unless a course is created on the main page. We added a question mark icon as a guide for tutors to understand how to use the system. We support four types of topics for each section: video, PDF, quiz, and coding exercise. Users can freely add and organize sections and topics. Each topic has title, description, expected duration to be progressed, and file upload if it is video or pdf.



The screenshot shows the EduPro course editor interface. At the top left is the EduPro logo. A search bar is located at the top center. On the top right, there is a user profile for 'Dima Naser' with a notification bell icon. A vertical orange sidebar on the left contains icons for home, user, messages, notifications, calendar, checklist, clock, and share. The main content area displays two sections, 'Section 1' and 'Section 2'. Each section has a title, a description field, a character count (0/200), and radio buttons for content types: Video, PDF, Quiz, and Exercise. 'Section 1' has a progress indicator of 9/50. Each section has 'Save Section' and 'Delete Section' buttons. At the bottom of the main area is an 'Add Section' button. A red question mark icon is in the top right corner, and a blue chat icon is in the bottom right corner.

This screenshot shows the detailed form for adding a video to 'Section 1'. The section title and description fields are visible. Below the description is a 'Video title' field with a character count of 0/50 and a file upload icon. Underneath is another 'Add a description...' field with a 0/200 character count. An 'Expected Duration' field is shown as two input boxes with a colon separator, currently containing '00 : 00'. An 'Upload File' button with a cloud icon is located below the duration field. At the bottom of the form are radio buttons for 'Video', 'PDF', 'Quiz', and 'Exercise'. The 'Add Section' button is at the bottom left of the form area. The top navigation and sidebar are identical to the previous screenshot.

We support microlearning where videos are not too long, videos are the main course content.

PDF title

0/50  

Add a description...

0/200

Expected Duration:

00 : 00

 Upload File

 Video

 PDF

 Quiz

 Exercise

 Add Section

 Next

Quiz title

0/50  

Add a description...

0/200

Expected Duration:

00 : 00

Add your question...

Add Choice

 Video

 PDF

 Quiz



 Exercise

 Add Section

The image shows a user interface for creating a quiz. At the top left is a grey button labeled "Add Choice". Below it are four text input fields, each containing a placeholder text "Choice 1" through "Choice 4". To the right of each input field is a checkmark icon. The checkmark for "Choice 3" is highlighted in orange, indicating it is the selected correct answer. Below the input fields are four buttons: "Video", "PDF", "Quiz", and "Exercise", each with a plus sign icon. At the bottom of the interface is a large teal button labeled "Add Section".

Tutors should enter title, description, duration, and up to four choices and they should choose the correct one.

We support a compiler and code space in our application, so we need the tutor to enter the title, question, and default code to guide and help students, along with up to two test cases including input and output.

Exercise title 0/50  

Write Your Code Question Here...


Expected Duration:


00 : 00

Select Programming Language ▼





Write The Default Code of your Question Here...

Test Case 1

 Input File .txt


 Output File .txt


Add Test Case


 Video PDF Quiz Exercise

 Add Section


Test Case 1


 Input File .txt


 Output File .txt





 Remove Test Case

Test Case 2

 Input File .txt

 Output File .txt

 Remove Test Case

 Video PDF Quiz Exercise

 Add Section

6.9.3 Authenticate Tutor experience


After creating the course structure the user is directed to this page. We aimed to build a reliable and trusted platform that offers courses from experienced professionals. For this, we introduced an automated approval flow to help the admin to process the requests effectively. This step also allows the teachers to load annexed documents, e.g., certificates or curriculum vitae (CV), to support the teachers' credentials for delivering a given course.

We included DeepSeek API that extracts their uploaded document text and seeks the match between this text and the user-provided course title and description. For this integration, we used prompt engineering with the DeepSeek model, learning to write accurate instructions in order to obtain precise and relevant responses from the model. Each time we hit a request to the Deepseek API certain number of tokens will be consumed.


```
250 class CourseApproveComponent: I usage 4 DimaNEid*
251     @staticmethod I usage 4 DimaNEid*
252     def approve_course(course, cv_file):
253         reader = PdfReader(cv_file)
254         cv_content = ''
255         for page in reader.pages:
256             cv_content += page.extract_text()
257         data = {
258             "model": "deepseek-chat",
259             "messages": [
260                 {
261                     "role": "system",
262                     "content": f"We are a website that provide courses for end users"
263                         f"This instructor submitted the CV In order to provide the courses"
264                         f"The course title is {course.title}"
265                         f"The course description is : {course.description}, do you think this user is faking "
266                         f"the course or he can give such course with description very well based on the CV ? please answer by Yes or No only with no description",
267                 },
268                 {
269                     "role": "user",
270                     "content": f"Here is the extracted CV {cv_content}"
271                 }
272             ]
273         }
274
275         # Make the request to DeepSeek API
276         headers = {
277             "Authorization": f"Bearer sk-02853e2acf516279840a61a90ccb2f3b",
278             "Content-Type": 'application/json'
279         }
280
281         response = requests.post(url="https://api.deepseek.com/chat/completions", json=data, headers=headers)
282         if response.json()["choices"][0]["message"]["content"].upper() == 'YES':
283             # approve
284             CourseRepository.approve_course(course.id)
285         else:
286             return
287
```



Authenticate Your Experience



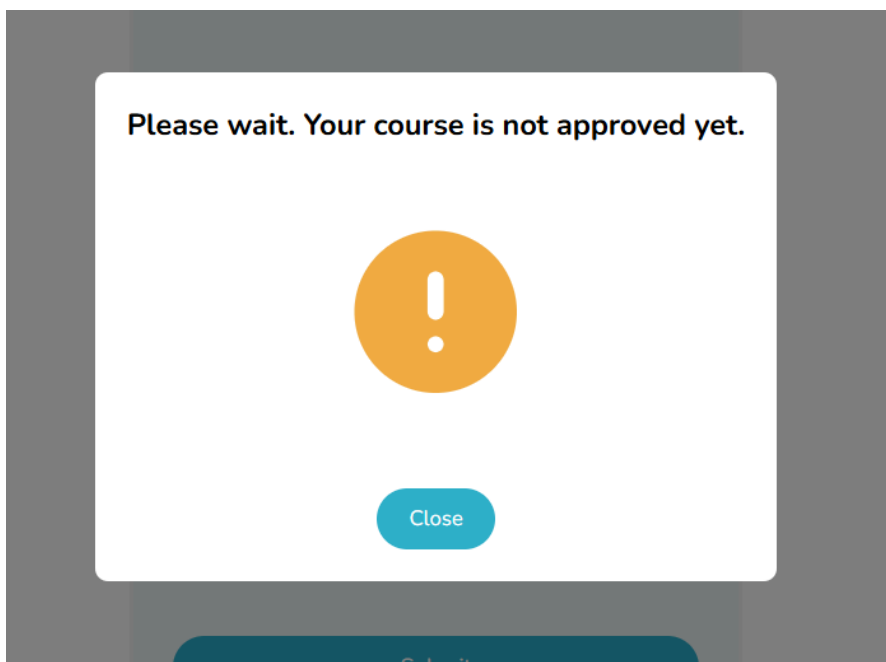
Upload your CV or Certificate

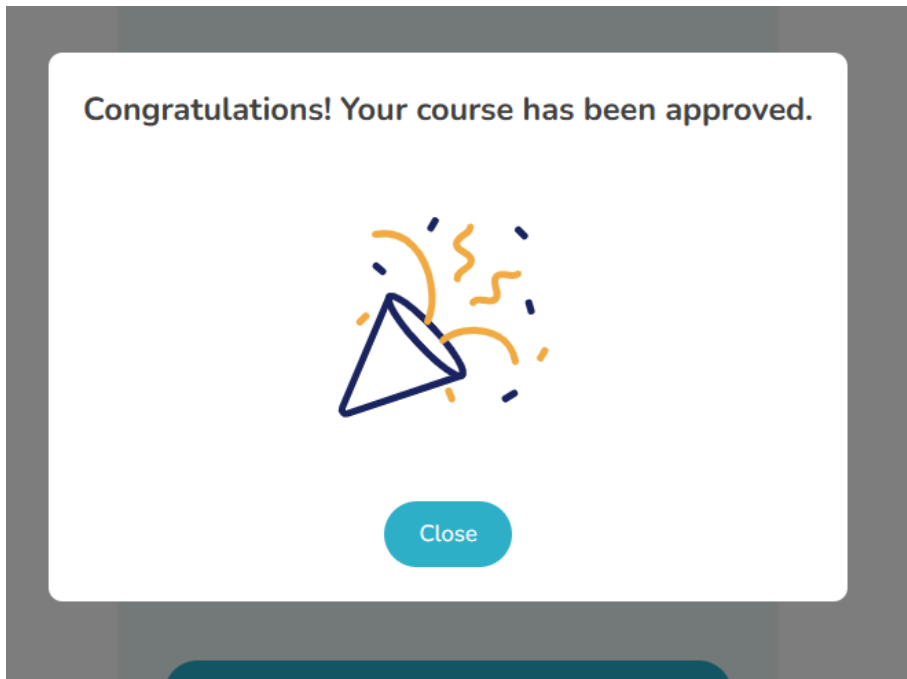
 Upload

Submit

Your experience will be taken into consideration in your submission to provide this course.

If the user uploads a document that doesn't match course requirements this modal appears, which means Deepseek has not approved to publish the course only the admin can approve it.





If Deepseek approves the course successfully, this modal is displayed. Then the platform directs the user to the course page, where the user can view his published course.

All these icons are dynamic.

6.10 Courses Main Page

EduPro is designed to provide an interactive experience to enable users to discover, access , and select courses.

6.10.1 Course Categories and Organization

In EduPro, courses are divided into sections to facilitate course discovery and user interaction. A "Top Picks" subsection describes courses that have the largest number of enrollments, revealing learners' popular selections. Courses in the "Trending Courses" section are highly rated by selected criteria based on user feedback and interaction. The "New Arrivals" category shows the newly added courses to the platform and that they are accessible to users. Moreover, the "Recommended for You" section uses AI-based recommendations, in which user interests, previous communications, and learning content are used to offer an individual, customized learning experience.

6.10.2 Interactive Elements and Navigation

To enhance usability, EduPro integrates interactive sliders. Users can explore different courses using left and right arrow navigation, allowing them to browse multiple options without excessive scrolling.

The screenshot displays the EduPro website interface. At the top left is the EduPro logo. A search bar is located in the top center. On the top right, there are icons for a shopping cart, a plus sign, a heart, and a user profile for 'Emad Natsheh'. Below the navigation bar, there are three main sections: 'Top Picks', 'Trending Courses', and 'New Arrivals'. Each section contains a horizontal slider of course cards. The 'Top Picks' section features three cards: 'Node.js, Express, MongoDB & More: The Complete Bootcamp' (95 USD), 'React Native: Build Cross-Platform Mobile Applications.' (60 USD), and 'Building Large Language Models: AI Practical Guide.' (40 USD). The 'Trending Courses' section features three cards: 'The ULTIMATE Guide to Prompt Engineering Perfect experience.' (45 USD), 'Complete Web Design: from Figma to Webflow to Freelancing.' (180.5 ILS), and 'Corporate Finance: Financial Analysis and Decision-Making.' (25 USD). The 'New Arrivals' section shows the beginning of three cards, with the first one titled 'What is'. Each card includes a thumbnail image, a title, a brief description, the instructor's name, a star rating, and the price.

EduPro Search... 00 P Emad Natsheh

Top Picks

- Node.js, Express, MongoDB & More: The Complete Bootcamp.**
Master full-stack JavaScript development with Node.js, Express, and MongoDB. Build scalable, real-world applications and become a professional back-end developer.
Instructor: Jonas Ron
★★★★☆ 95 USD
- React Native: Build Cross-Platform Mobile Applications.**
Learn React Native to create powerful, cross-platform mobile apps for iOS and Android. Cover UI design, APIs, navigation, state management, and deployment in this comprehensive course.
Instructor: Sema Wael
★★★★☆ 60 USD
- Building Large Language Models: AI Practical Guide.**
Learn to design, train, and deploy large language models (LLMs) using advanced AI techniques, including data preparation, fine-tuning, and real-world deployment strategies.
Instructor: Emad Natsheh
★★★★☆ 40 USD

Trending Courses

Trending Courses

- The ULTIMATE Guide to Prompt Engineering Perfect experience.**
Learn the art of crafting effective prompts to unlock the full potential of large language models like GPT, solving real-world problems and building intelligent applications.
Instructor: John Martees
★★★★☆ 45 USD
- Complete Web Design: from Figma to Webflow to Freelancing.**
Master the art of creating intuitive, user-centered designs with practical lessons on wireframing, prototyping, usability testing, and crafting visually appealing interfaces.
Instructor: Dima Naser
★★★★☆ 180.5 ILS
- Corporate Finance: Financial Analysis and Decision-Making.**
Learn to manage your money effectively with practical lessons on budgeting, saving, debt management, and building wealth through smart investments and financial planning.
Instructor: Dima Naser
★★★★☆ 25 USD

New Arrivals

- What is**
- What is**
- What is**

New Arrivals



What is Cloud Computing?

Masterclass in Modern Cloud Computing Fundamentals.

Unlock the full potential of cloud computing by mastering architecture, deployment strategies, cost optimization, and security techniques with practical real-world applications.

Instructor: Dima Naser

★★★★★ 50 USD



Master AI Fundamentals: Build Intelligent App

Learn the foundations of Artificial Intelligence, machine learning, deep learning, and neural networks to create intelligent applications.

Instructor: Dima Naser

★★★★★ 30 USD




Full-Stack Development Practicing FrontEnd And BackEnd

A complete guide to becoming a full-stack developer with hands-on projects in HTML, CSS, JavaScript, React, Node.js, and MongoDB. Perfect for beginners and professionals alike!

Instructor: Dima Naser


★★★★★ 25 USD

Recommended for You




Instructor: Dima Naser

★★★★★ 50 USD



Instructor: Dima Naser


★★★★★ 30 USD



Instructor: Dima Naser

★★★★★ 25 USD

Recommended for You



Master AI Fundamentals: Build Intelligent App

Learn the foundations of Artificial Intelligence, machine learning, deep learning, and neural networks to create intelligent applications.

Instructor: Dima Naser

★★★★★ 30 USD




What is Cloud Computing?

Masterclass in Modern Cloud Computing Fundamentals.

Unlock the full potential of cloud computing by mastering architecture, deployment strategies, cost optimization, and security techniques with practical real-world applications.

Instructor: Dima Naser

★★★★★ 50 USD



UX/UI In The UAE

Complete Web Design: from Figma to Webflow to Freelancing.








Crafting Digital Experiences With A Local Touch

Master the art of creating intuitive, user-centered designs with practical lessons on wireframing, prototyping, usability testing, and crafting visually appealing interfaces.

Instructor: Dima Naser

★★★★★ 180.5 ILS

6.10.3 Course Page

00 P     Dima Naser  

- Home
- Profile
- Messages
- Notifications
- Courses
- My Courses
- Search
- About
- Logout

Course Description

Explore the revolutionary world of cloud computing in this comprehensive course. From understanding the basics to mastering advanced topics, this program covers everything you need to know to design, deploy, and manage cloud-based systems efficiently. Gain hands-on experience with leading cloud platforms, including AWS, Azure, and Google Cloud. Learn to create scalable and secure architectures, implement cost optimization strategies, and monitor...

[Show More](#)

What You'll Learn

- ✓ Understand Cloud Computing Fundamentals.
- ✓ Master Popular Cloud Platforms.
- ✓ Design Scalable and Secure Architectures.
- ✓ Implement Cost Optimization Strategies.
- ✓ Enhance Skills in Monitoring and Recovery.
- ✓ Integrate Cloud Services into Business Operations.

This Course Includes:

- 2 students enrolled
- 1.5 hours on-demand topics
- 3 practice tests
- 5 sections

[Show More](#)

Requirements

Familiarity with basic programming and computer networks.

Level Needed



Intermediate

What is Cloud Computing?

Masterclass in Modern Cloud Computing Fundamentals.

Unlock the full potential of cloud computing by mastering architecture, deployment strategies, cost optimization, and security techniques with practical real-world applications.


★★★★★ 4.8

  \$ 50

Course Content

5 sections • 14 lectures

Introduction to Cloud Computing.	3 lectures • 05:20
Understanding Cloud Service Models.	3 lectures • 05:20
Cloud Deployment Models.	3 lectures • 29:05
Security and Compliance in the Cloud.	3 lectures • 25:00
Practical Cloud Implementation.	2 lectures • 25:00



Dima Naser

- 3.9 Instructor Rating
- 614 Reviews
- 2 Students
- 4 Courses
- 1 Followers














Eng. Dima is a software engineer, educator, and technology consultant with a passion for empowering individuals to excel in the fields of software development and design.

[Follow](#) [View Profile](#)

This Page gives all the course content, any user can see the main course information but can't access the course content unless he pays for it.

Course Content

5 sections • 14 lectures

Introduction to Cloud Computing.	  3 lectures • 05:20 ^
This section lays the groundwork for understanding the cloud's role in modern technology.	
 What is Cloud Computing?	00:10 v
 Glossary of Cloud Terminologies.	00:10 v
 Cloud Basics Quiz	05:00 v
<hr/>	
Understanding Cloud Service Models.	  3 lectures • 05:20 v
<hr/>	
Cloud Deployment Models.	  3 lectures • 29:05 v
<hr/>	
Security and Compliance in the Cloud.	  3 lectures • 25:00 v
<hr/>	
Practical Cloud Implementation.	  2 lectures • 25:00 v

How course content would look like to the course's tutor.

6.10.3.1 Course Card



What is Cloud Computing?

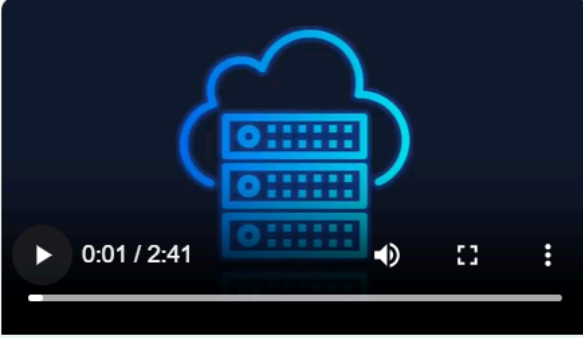
Masterclass in Modern Cloud Computing Fundamentals.

Unlock the full potential of cloud computing by mastering architecture, deployment strategies, cost optimization, and security techniques with practical real-world applications.

★★★★☆ 4.8

  \$ 50



This component displays the course cover image when the user clicks on the play button course promotional video starts playing.



Masterclass in Modern Cloud Computing Fundamentals.

Unlock the full potential of cloud computing by mastering architecture, deployment strategies, cost optimization, and security techniques with practical real-world applications.

★★★★☆ 4.8

  \$ 50

The card also contains the course title, subtitle, rating, price, favorite, and cart buttons. Moreover, the user can rate the course by clicking on the rating stars.

6.10.3.2 Course general information

Course Description

Explore the revolutionary world of cloud computing in this comprehensive course. From understanding the basics to mastering advanced topics, this program covers everything you need to know to design, deploy, and manage cloud-based systems efficiently. Gain hands-on experience with leading cloud platforms, including AWS, Azure, and Google Cloud. Learn to create scalable and secure architectures, implement cost optimization strategies, and monitor...

[Show More](#)

Course Description


Explore the revolutionary world of cloud computing in this comprehensive course. From understanding the basics to mastering advanced topics, this program covers everything you need to know to design, deploy, and manage cloud-based systems efficiently. Gain hands-on experience with leading cloud platforms, including AWS, Azure, and Google Cloud. Learn to create scalable and secure architectures, implement cost optimization strategies, and monitor infrastructure effectively. Discover best practices for disaster recovery and fault tolerance.

[Show Less](#)

What You'll Learn

- ✓ Understand Cloud Computing Fundamentals.
- ✓ Design Scalable and Secure Architectures.
- ✓ Enhance Skills in Monitoring and Recovery.
- ✓ Master Popular Cloud Platforms.
- ✓ Implement Cost Optimization Strategies.
- ✓ Integrate Cloud Services into Business Operations.

This Course Includes:

-  0 students enrolled
-  1.5 hours on-demand topics
-  3 practice tests
-  5 sections

[Show More](#)

This Course Includes:

-  0 students enrolled
-  1.5 hours on-demand topics
-  3 practice tests
-  5 sections
-  Access on mobile and TV
-  Certificate of completion

[Show Less](#)

Requirements

Familiarity with basic programming and computer networks.

Level Needed







Intermediate

6.10.3.3 course content

Course Content

5 sections • 14 lectures

Introduction to Cloud Computing.	3 lectures • 05:20	▼
Understanding Cloud Service Models.	3 lectures • 05:20	▼
Cloud Deployment Models.	3 lectures • 29:05	▼
Security and Compliance in the Cloud.	3 lectures • 25:00	▼
Practical Cloud Implementation.	2 lectures • 25:00	▼

Introduction to Cloud Computing.	3 lectures • 05:20	^
This section lays the groundwork for understanding the cloud's role in modern technology.		
 What is Cloud Computing?	00:10	^
Learn the basics of cloud computing.		
 Glossary of Cloud Terminologies.	00:10	^
Guide to essential cloud-related terms to familiarize yourself with industry jargon.		
 Cloud Basics Quiz	05:00	^
Test your understanding of cloud computing fundamentals.		
Understanding Cloud Service Models.	3 lectures • 05:20	^
Explore the three primary cloud service models (IaaS, PaaS, SaaS) and understand their use cases with real-world examples.		
 Introduction to Cloud Service Models.	00:10	▼
 Comparing Service Models for Business Needs.	00:10	▼
 Test Your Understanding.	05:00	▼
Cloud Deployment Models.	3 lectures • 29:05	▼
Security and Compliance in the Cloud.	3 lectures • 25:00	▼

If the user hasn't purchased the course yet, the course content will appear as locked, and they won't be able to access it until payment is made. The sections and topics, as mentioned before, are visible. Each section displays an estimated time, calculated based on the total topics within it. Each topic type is represented by a unique icon to enhance the user experience. Tutors have the ability to edit and add to their course content.

If the user buys the course this is how the course content would look like:




Course Content

5 sections • 14 lectures

Introduction to Cloud Computing.	3 lectures • 05:20
Understanding Cloud Service Models.	3 lectures • 05:20
Cloud Deployment Models.	3 lectures • 29:05
Security and Compliance in the Cloud.	3 lectures • 25:00
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Course Content

5 sections • 14 lectures




Introduction to Cloud Computing.	3 lectures • 05:20
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Course Content

5 sections • 14 lectures

Introduction to Cloud Computing. 3 lectures • 05:20 ^

This section lays the groundwork for understanding the cloud's role in modern technology.

-  **What is Cloud Computing?** 00:10 ^
Learn the basics of cloud computing.
-  **Glossary of Cloud Terminologies.** 00:10 v
-  **Cloud Basics Quiz** 05:00 v

Understanding Cloud Service Models. 3 lectures • 05:20 v

Cloud Deployment Models. 3 lectures • 29:05 v

Security and Compliance in the Cloud. 3 lectures • 25:00 v




Practical Cloud Implementation. 2 lectures • 25:00 v

Course Content

5 sections • 14 lectures




Introduction to Cloud Computing. 3 lectures • 05:20 ^

This section lays the groundwork for understanding the cloud's role in modern technology.

-  **What is Cloud Computing?** 00:10 ^
Learn the basics of cloud computing.
-  **Glossary of Cloud Terminologies.** 00:10 v
-  **Cloud Basics Quiz** 05:00 v

Understanding Cloud Service Models. 3 lectures • 05:20 ^

Explore the three primary cloud service models (IaaS, PaaS, SaaS) and understand their use cases with real-world examples.

-  **Introduction to Cloud Service Models.** 00:10 v
-  **Comparing Service Models for Business Needs.** 00:10 v
-  **Test Your Understanding.** 05:00 v

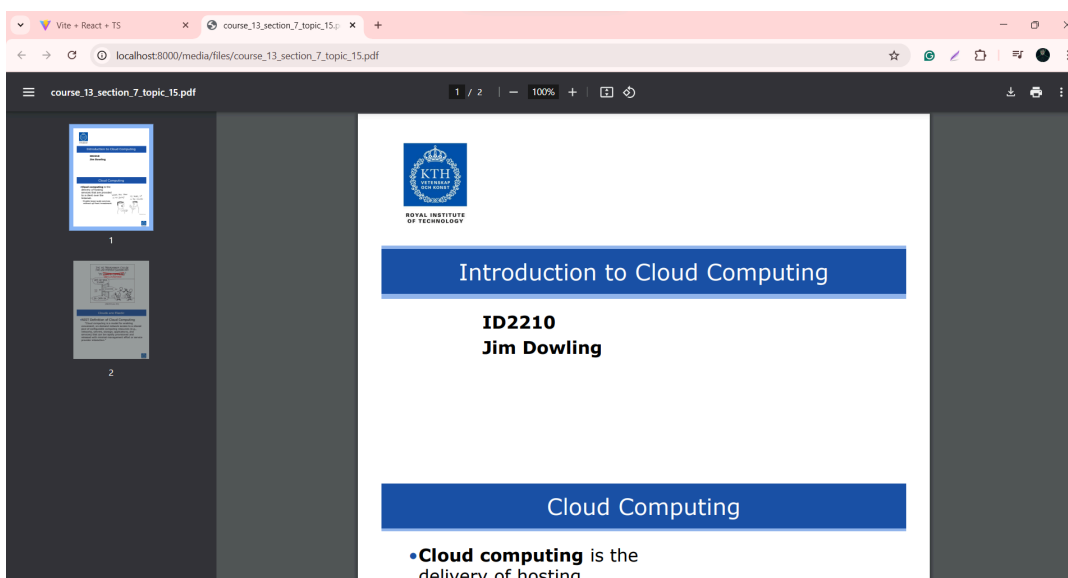
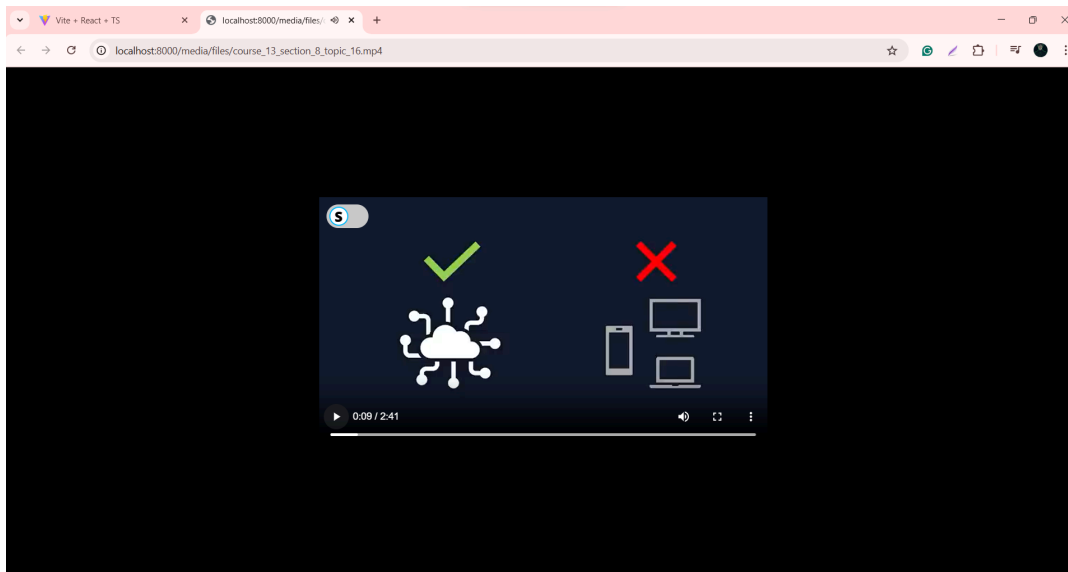
Cloud Deployment Models. 3 lectures • 29:05 v

Each subsection has a check button that allows users to track their progress. When all topics within a section are marked as completed, the section is automatically marked as completed. Users can click on any topic to view and study it.

6.10.3.4 Topics

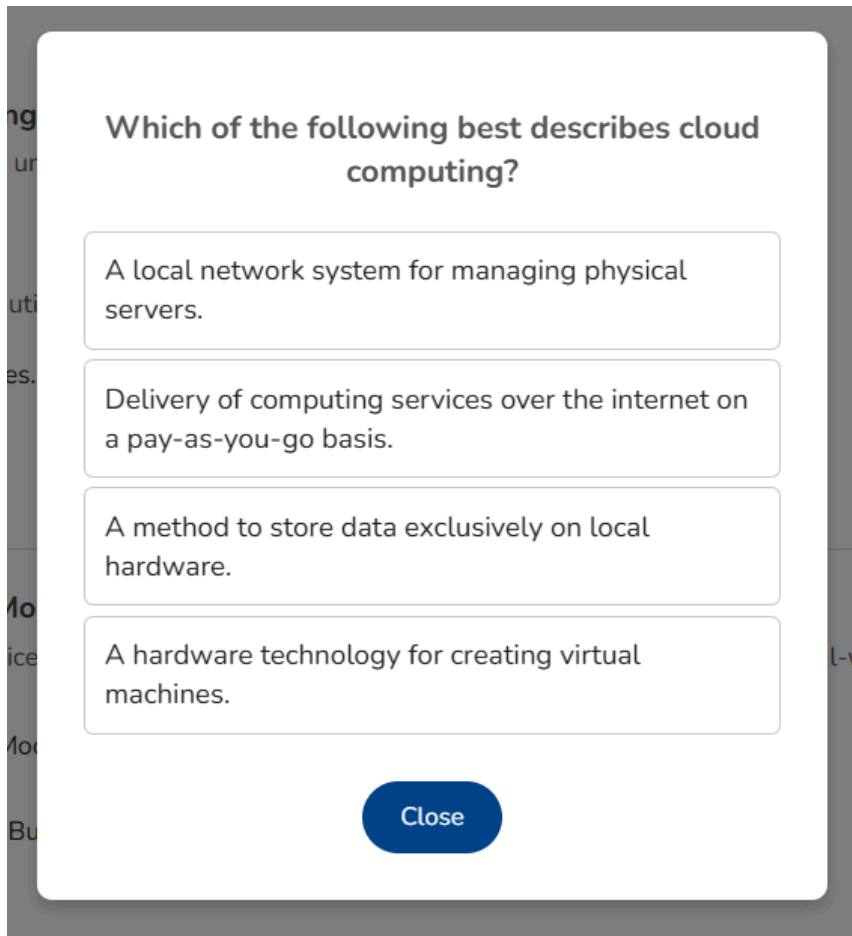
6.10.3.4.1 Videos and PDF

We have downloadable Videos and PDF documents that will be opened in a new tab then the user can navigate between sections and topics unconditionally.



6.10.3.4.2 Quizzes

When the user first clicks on a quiz topic, a modal window displaying the question with multiple choices will appear.



Additionally, we have an interactive feature that indicates whether the user's answer is correct or incorrect. Also, the icons we used are dynamic.

Which of the following best describes cloud computing?



Incorrect. Try again!

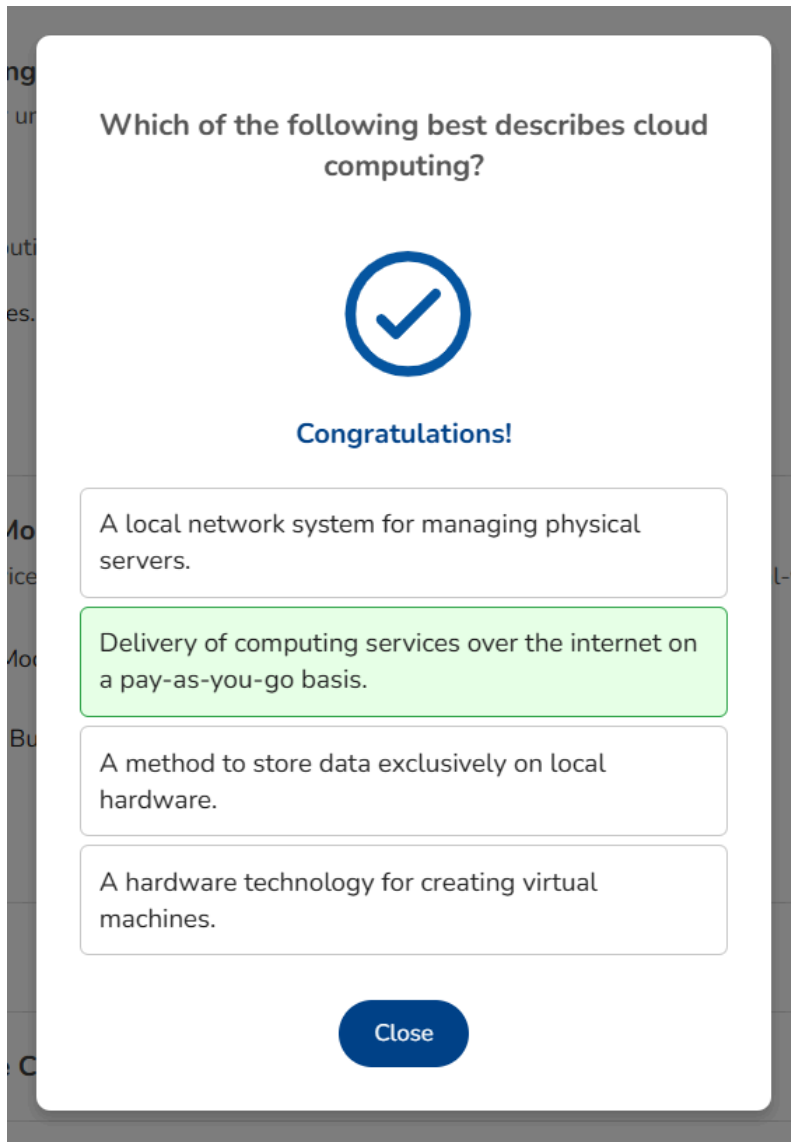
A local network system for managing physical servers.

Delivery of computing services over the internet on a pay-as-you-go basis.

A method to store data exclusively on local hardware.

A hardware technology for creating virtual machines.

Close



6.10.3.4.3 Coding Exercise

The platform has an integrated compiler in which the students can write and execute coding exercises within the application. In this feature, one can enhance a real-time coder's environment, planning, writing, running, and testing of their code directly on exercises. The compiler is capable of dynamic feedback, providing error messages or results immediately providing students with the opportunity to both learn and improve their coding skills interactively.

Practical Cloud Implementation.

2 lectures • 25:00

Apply what you've learned in a hands-on coding exercise that involves deploying a simple cloud-based application.

Setting Up Your First Cloud Application

05:00

A step-by-step guide to deploying a basic application on AWS or Google Cloud.

Coding Exercise Test

20:00

Write a Python script to count how many times a specific letter appears in a given string.

Users can click on Coding Exercise then the compiler tab gets opened.

6.10.3.4.4 Compiler

Write a Python script to count how many times a specific letter appears in a given string.

Language:

python

```
1 # Function to calculate the cost of cloud storage
2 def calculate_cost(storage_used, cost_per_gb):
3     # Write your logic here
4     return 0 # Placeholder return statement, replace with your logic
5
6 # Test the function
7 if __name__ == "__main__":
8     print("Cloud Storage Cost Calculator") # Prints the required greeting
9
10 # Test Case 1
11 result1 = calculate_cost(100, 0.02) # Expected Output: 2.0
12 print("Test Case 1 Result:", result1)
```

Output

Run Code

Click 'Run Code' to see the output here

Output

Run Code

Cloud Storage Cost Calculator
Test Case 1 Result: 0

Test Cases:

Test Case 1

Input:

100 0.02

Expected Output:

2.0

Output

Run Code

```
Traceback (most recent call last):
  File "/piston/jobs/d50116eb-1cab-4771-9faa-0adb4c99fd0e/file0.code", line 11, in <module>
    result1 = calculate_cost(100, 0.02) # Expected Output: 2.0
  File "/piston/jobs/d50116eb-1cab-4771-9faa-0adb4c99fd0e/file0.code", line 4, in calculate_cost
    return g # Placeholder return statement, replace with your logic
NameError: name 'g' is not defined
```

Test Cases:

Test Case 1

Input:

100 0.02

Expected Output:

2.0

Write a Python script to count how many times a specific letter appears in a given string.

Language:

python

javascript (18.15.0)

typescript (5.0.3)

python (3.10.0)

java (15.0.2)

csharp (6.12.0)

php (8.2.3)

cpp (17.0.0)

```
# Function to calculate the cost of cloud storage
def calculate_cost(storage_used, cost_per_gb):
    # Write your logic here
    # Placeholder return statement, replace with your logic
    return 0

# Test the function
if __name__ == "__main__":
    print("Cloud Storage Cost Calculator") # Prints the required greeting

# Test Case 1
result1 = calculate_cost(100, 0.02) # Expected Output: 2.0
print("Test Case 1 Result:", result1)
```

Write a Python script to count how many times a specific letter appears in a given string.

Language:

python

```
1 # Function to calculate the cost of cloud storage
2 def calculate_cost(storage_used, cost_per_gb):
3     # Write your logic here
4     return 0 # Placeholder return statement, replace with your logic
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10 # Test Case 1
11 result1 = calculate_cost(100, 0.02) # Expected Output: 2.0
12 print("Test Case 1 Result:", result1)
```

Output

Run Code

Cloud Storage Cost Calculator

Output

Run Code

Cloud Storage Cost Calculator
Test Case 1 Result: 0

Test Cases:

Test Case 1

Input:

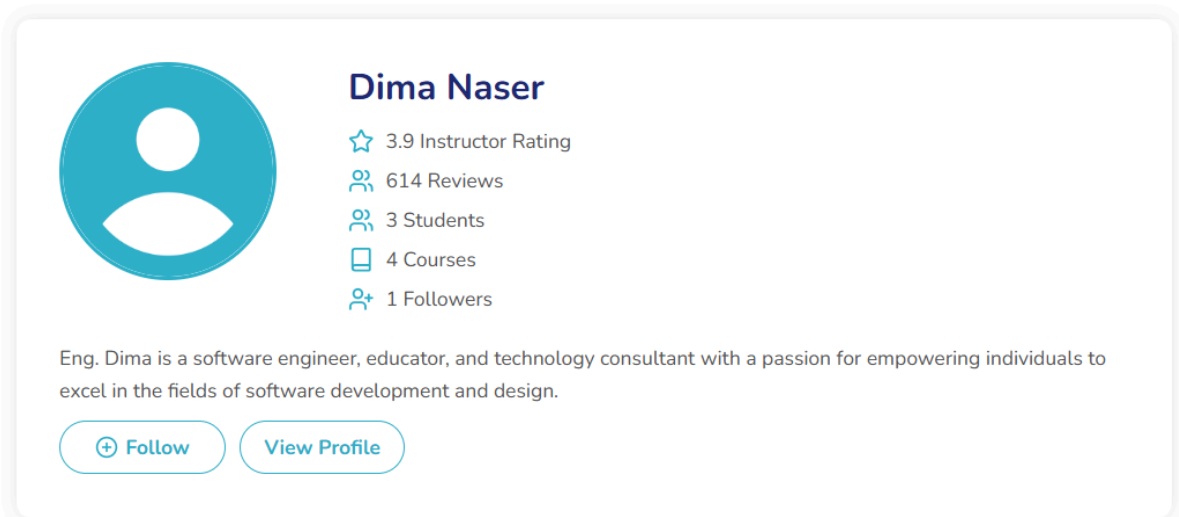
100 0.02


Expected Output:

2.0

The code that is shown in the Code Editor by default is the first code provided by the tutor when creating the course. Our compiler is able to perform multiple programming languages with the possibility to add more, if necessary. It is possible that by taking advantage of the code execution, result visualization, and error reporting, users could execute their code, see the results, and receive feedback in the event of any detected errors. Besides, the editor and test case validation is provided to confirm the code respects the desired results. To improve user experience, we have also provided the option of light and dark mode, so users can tailor their coding environment.

6.10.3.4 Tutor Information






Dima Naser

- ☆ 3.9 Instructor Rating
- 👤 614 Reviews
- 👥 3 Students
- 📅 4 Courses
- 👤+ 1 Followers

Eng. Dima is a software engineer, educator, and technology consultant with a passion for empowering individuals to excel in the fields of software development and design.

[+ Follow](#) [View Profile](#)



Dima Naser

- ☆ 3.9 Instructor Rating
- 👤 614 Reviews
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Eng. Dima is a software engineer, educator, and technology consultant with a passion for empowering individuals to excel in the fields of software development and design.





Following
View Profile










The tutor information card contains essential information about the tutor of the provided course, such as the name, rating, reviews, students, courses, followers, etc. A short biography introduces their expertise to potential learners.

Follow/Unfollow functionality enables users to interact with the tutors they like most. The button changes from "Follow" to "Following," and the number of followers increases when clicked, while unfollowing changes the application, which implements real-time updates.


6.11 Shopping Cart



10 P    Dima Eid 

Shopping Cart




Complete Java Script Course: From Zero to Hero.

Learn JavaScript from scratch to advanced concepts with real-world projects, covering ES6, DOM manipulation, asynchronous programming, and APIs for modern web development.

By: Dima Naser ★★★★★ 4.0

\$25

Remove




Masterclass in Modern Cloud Computing Fundamentals.

Unlock the full potential of cloud computing by mastering architecture, deployment strategies, cost optimization, and security techniques with practical real-world applications.

By: Dima Naser ★★★★★ 4.8

\$50

Remove



Full-Stack Development Practicing FrontEnd And BackEnd

A complete guide to becoming a full-stack developer with hands-on projects in HTML, CSS, JavaScript, React, Nodejs, and MongoDB. Perfect for beginners and professionals alike!

By: Dima Naser ★★★★★ 4.0

\$25

Remove

Order Summary

Course Name	Price
Complete Java Script Course: From Zero to Hero.	\$ 25.00
Masterclass in Modern Cloud Computing Fundamentals.	\$ 50.00
Full-Stack Development Practicing FrontEnd And BackEnd	\$ 25.00
Subtotal:	\$ 100.00
Loyalty Discount:	-\$ 0.00
Tax (10%):	\$ 10.00
Total:	\$ 110.00

Choose Currency: \$ ▼

Pay Now

EduPro shopping cart allows users to purchase courses, the cart displays a list of selected courses, including course name, instructor, price, rating, and description, along with a remove button to delete items before checkout.

On the right, the order summary provides a breakdown of the purchase showing the subtotal, applied discount from the loyalty points, tax, and the final total amount. Users can also select their preferred currency before proceeding with payment.

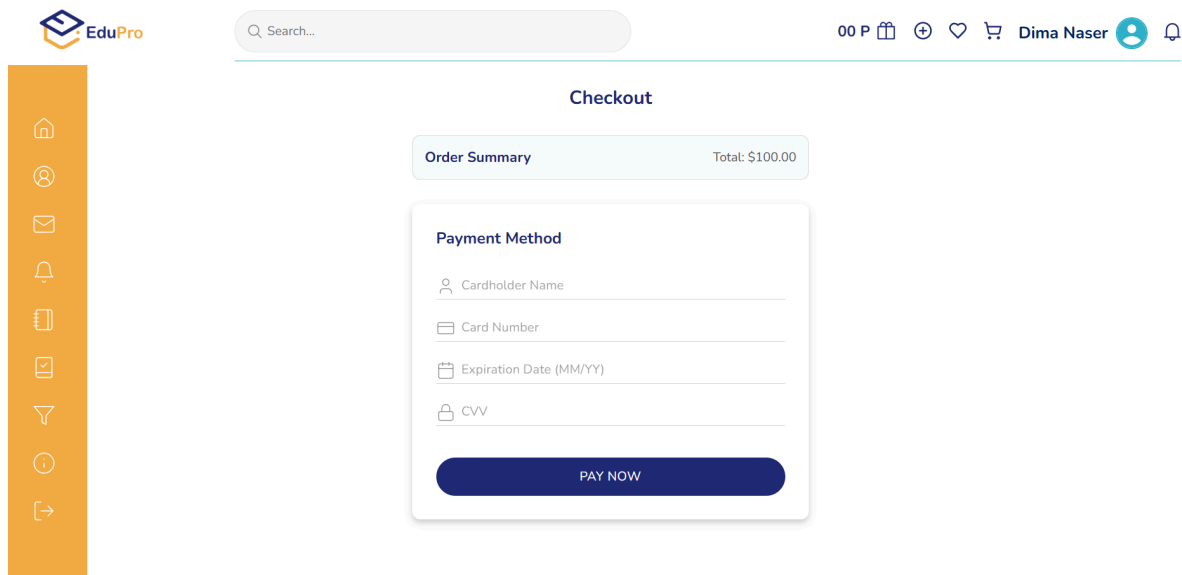
Order Summary

Course Name	Price
Master AI Fundamentals: Build Intelligent Applicat	₦ 108.30
Complete Java Script Course: From Zero to Hero.	₦ 90.25
Masterclass in Modern Cloud Computing Fundamentals.	₦ 180.50
Subtotal:	₦ 379.05
Loyalty Discount:	-₦ 0.00
Tax (10%):	₦ 37.91
Total:	₦ 416.96

Choose Currency: ₦ ▾

[Pay Now](#)

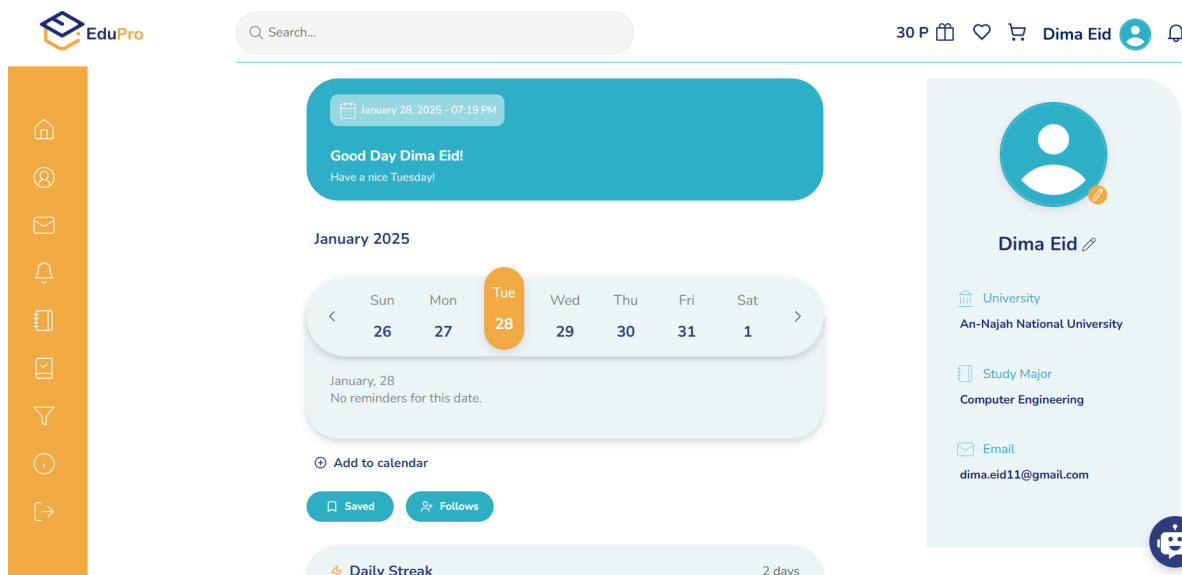
6.12 Payment Page



The user enters his card information to pay for the courses, in this page the final total is also displayed.

6.13 Loyalty Points

We added a loyalty points feature to our system to encourage users to purchase more courses. For each course, a user buys, their loyalty points increase by 10. For every 100 loyalty points, a \$10 discount is applied to the total purchase amount.



As we can see this user bought 3 courses, so earned 30 points.

6.14 Favorites Page

My Favorites

- Modern JavaScript** (From The Beginning 2.0)
 - Complete Java Script Course: From Zero to Hero.
 - Learn JavaScript from scratch to advanced concepts with real-world projects, covering ES6, DOM manipulation, asynchronous programming, and APIs for modern web development.
 - 4.0 rating
 - \$25
- What is Cloud Computing?** (Masterclass in Modern Cloud Computing Fundamentals.)
 - Unlock the full potential of cloud computing by mastering architecture, deployment strategies, cost optimization, and security techniques with practical real-world applications.
 - 4.8 rating
 - \$50

This page contains the liked courses by the user.

6.15 My Courses Page

My Courses

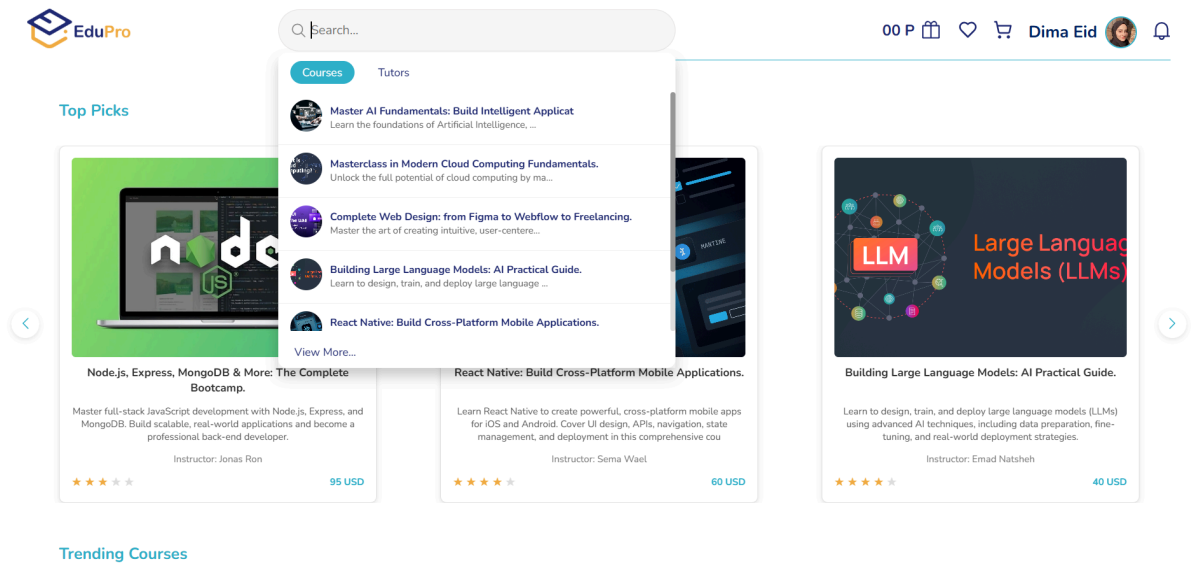
User Courses Finished Per Month

Month	Courses Completed
January	3
February	5
March	8
April	2
May	9
June	7
July	6
August	4
September	5
October	8
November	3
December	10

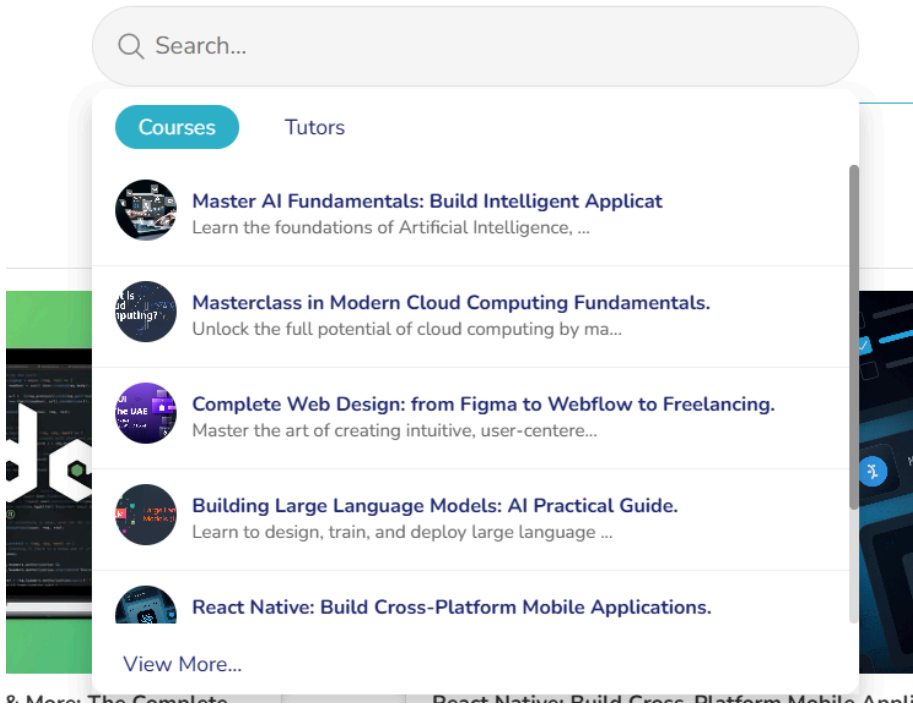


Here students can show their enrolled courses.

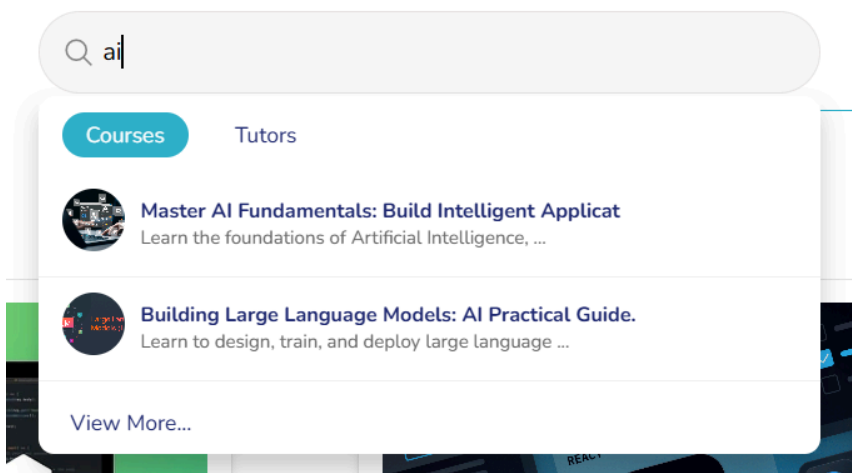
6.16 Search Drop-down



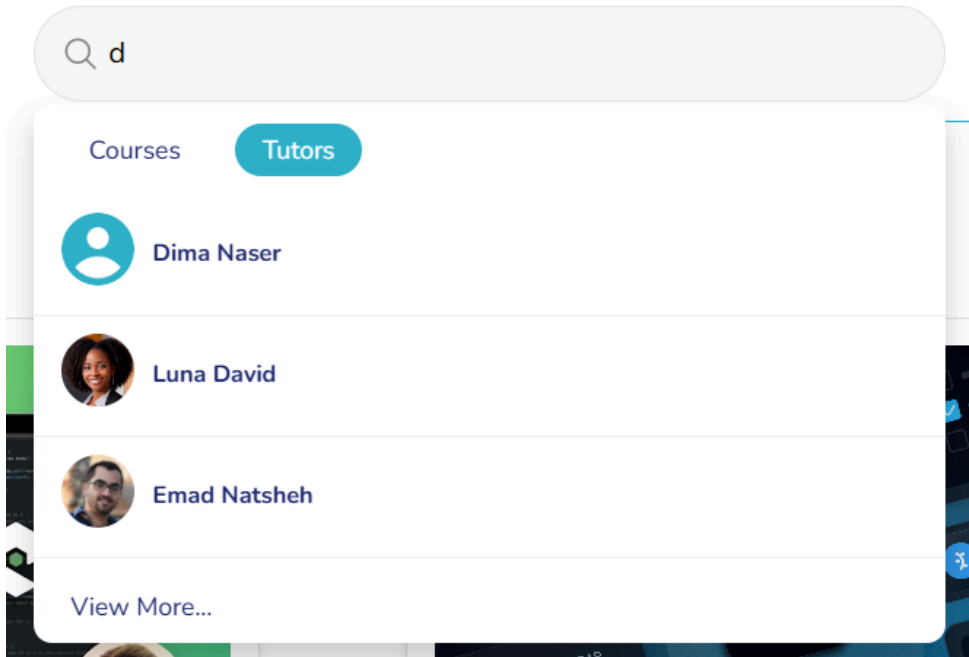
When the user first clicks inside the search bar, recommended courses are displayed to the user.



We have two search categories inside the search dropdown, Courses where the user can search for any course he wants. When any course is clicked the system navigates to the course page clicked.

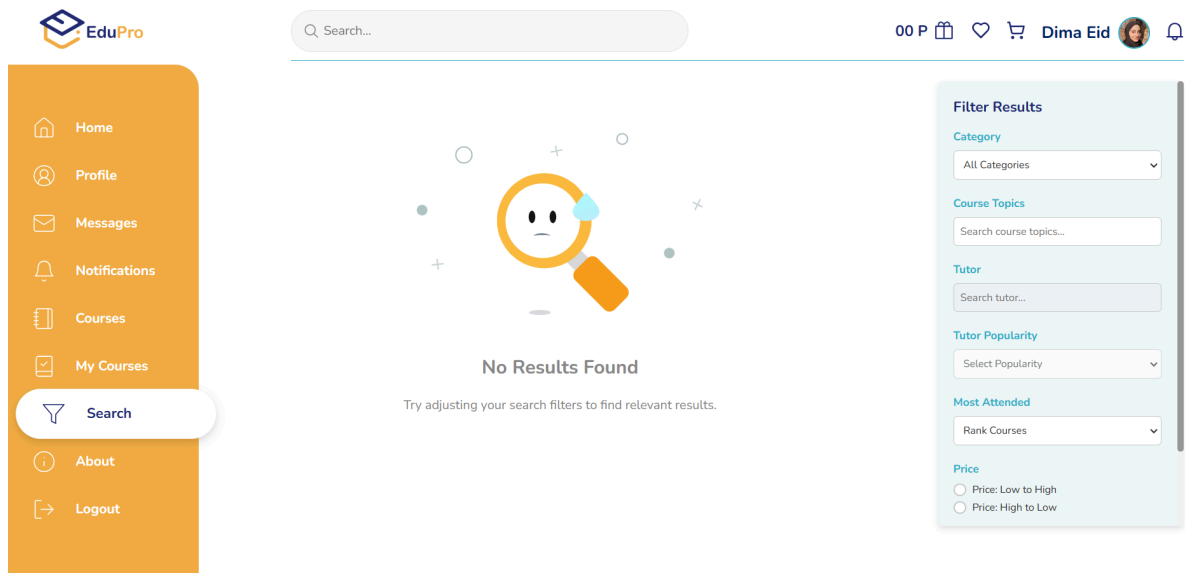


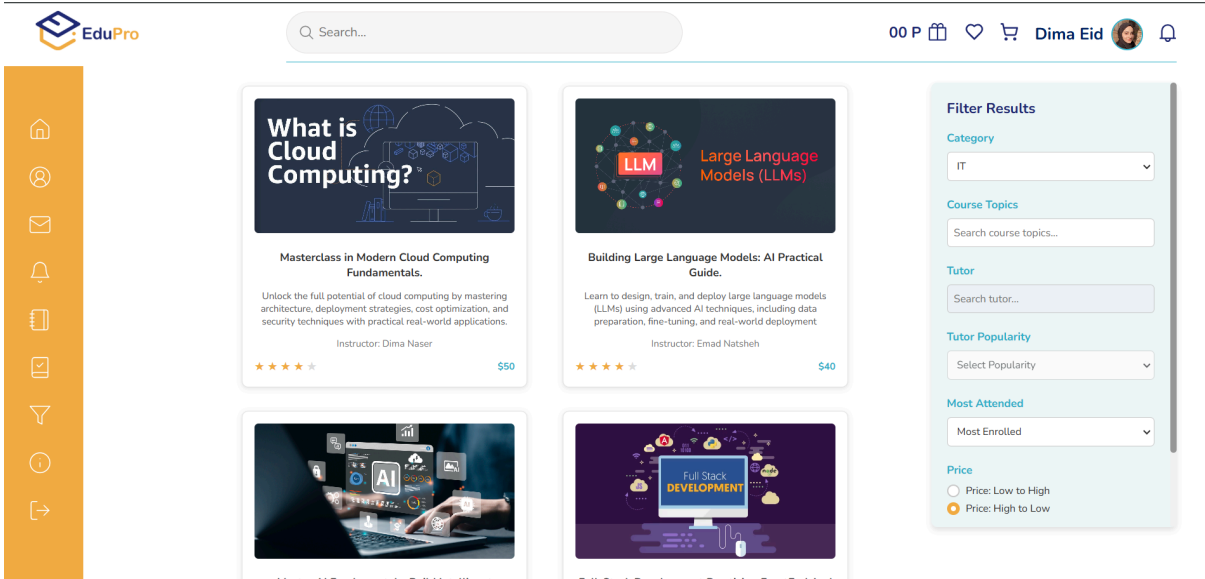
The other category is Tutors where users can search for tutors. When an item is clicked system navigates to the tutor profile that was chosen.



6.17 Search Filters

EduPro search and filtering system enhances course discovery by allowing users to choose their courses based on the criterias they want. This feature ensures that learners can quickly find courses that match their interest, budget and learning preferences. Users can access the Search Filter page using the Sidebar or view more inside the search dropdown.





As u can see here we searched based on three criterias, category, most attended and price.

6.17.1 Courses Search Filters

Category, course topic, most and least enrolled, prices from high to low and low to high, and rating.

Filter Results

Category

Course Topics

Tutor

Tutor Popularity

Most Attended

Price

- Price: Low to High
- Price: High to Low

Rating

- Rate: Low to High
- Rate: High to Low

6.17.2 Tutors Search Filters

Users can search using tutor name and popularity based on his followers.

The image displays two screenshots of the EduPro tutor search interface. Both screenshots feature a top navigation bar with the EduPro logo, a search bar, and user information (00 P, Dima Eid). A vertical sidebar on the left contains navigation icons. The main content area shows a grid of tutor profiles, each with a profile picture, name, and follower count, along with 'Follow' and 'View Profile' buttons.

Top Screenshot: Shows a grid of six tutor profiles: Dima Naser (2 Followers), Jonas Ron (0 Followers), Sema Wael (0 Followers), John Martees (0 Followers), Emad Natsheh (0 Followers), and Luna David (0 Followers). The right sidebar contains filters: Course Topics (searchable), Tutor (searchable), Tutor Popularity (dropdown), Most Attended (dropdown), Price (radio buttons for Low to High and High to Low), and Rating (radio buttons for Low to High and High to Low).

Bottom Screenshot: Shows the same grid after applying filters, resulting in three profiles: Dima Naser (2 Followers), Emad Natsheh (0 Followers), and Luna David (0 Followers). The right sidebar is titled 'Filter Results' and shows: Category (dropdown), Course Topics (searchable), Tutor (input field with 'd'), Tutor Popularity (dropdown), Most Attended (dropdown), Price (radio buttons), and Rating (radio buttons).

Filters for Tutors are different from course filters to ensure system efficiency.

6.18 Tutor Profile

This page provides an overview of an instructor's profile along with the courses they teach. It includes course details, pricing, instructor information, and interactive options for users to follow or contact the instructor.



Full Stack Development Practicing FrontEnd And BackEnd

A complete guide to becoming a full-stack developer with hands-on projects in HTML, CSS, JavaScript, React, Node.js, and MongoDB. Perfect for beginners and professionals alike!

Instructor: Dima Naser

★★★★☆ \$25

Master AI Fundamentals: Build Intelligent Applicat

Learn the foundations of Artificial Intelligence, machine learning, deep learning, and neural networks to create intelligent applications.

Instructor: Dima Naser

★★★★☆ \$30

What is Cloud Computing?

Modern JavaScript

From The Beginning 2.0

Dima Naser

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- 3.9 Instructor Rating
- 614 Reviews
- 10 Students
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[View Posts](#)

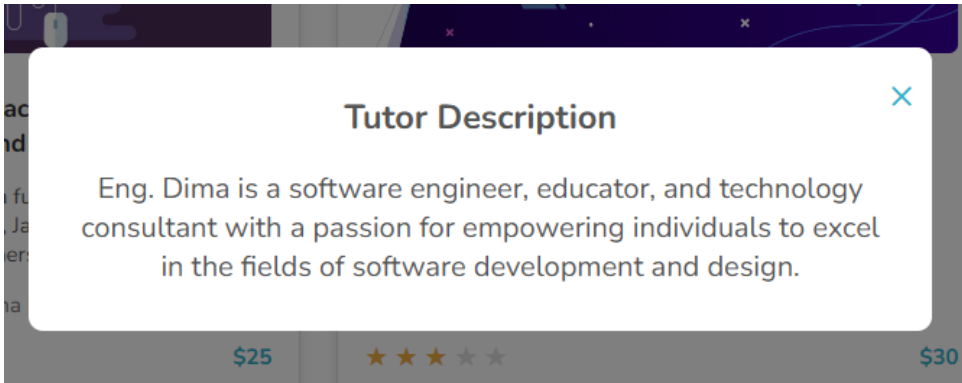
Dima Naser

[Following](#) [Message](#)

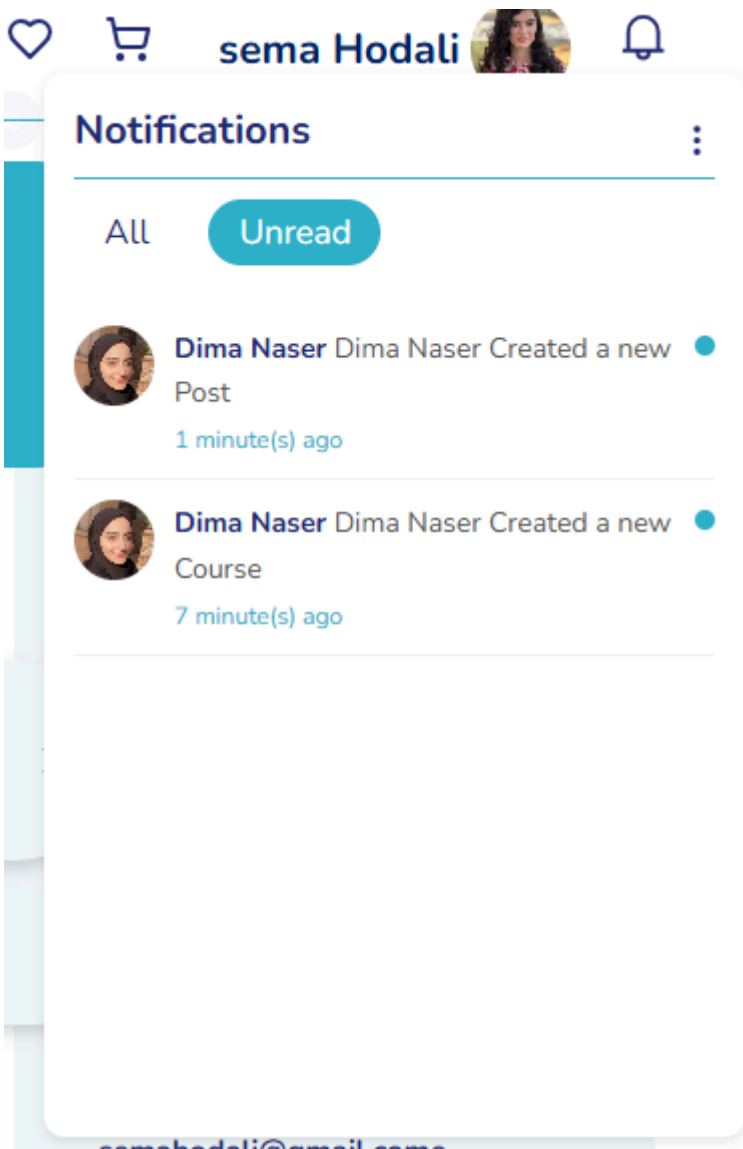
Eng. Dima is a software engineer, educator, and technology consultant with a passion for empowering ...

- 3.9 Instructor Rating
- 614 Reviews
- 10 Students
- 4 Courses
- 2 Followers

[View Posts](#)



6.19 Notifications





User will notify if one of their following create post or course or followed him and all of their notification will appear in header notification lis with All and Unread filter

semahodali@gmail.com







Notifications

All Unread

 **Dima Naser** Dima Naser Created a new Post
2 minute(s) ago


 **Dima Naser** Dima Naser Created a new Course
8 minute(s) ago

semahodali@gmail.com

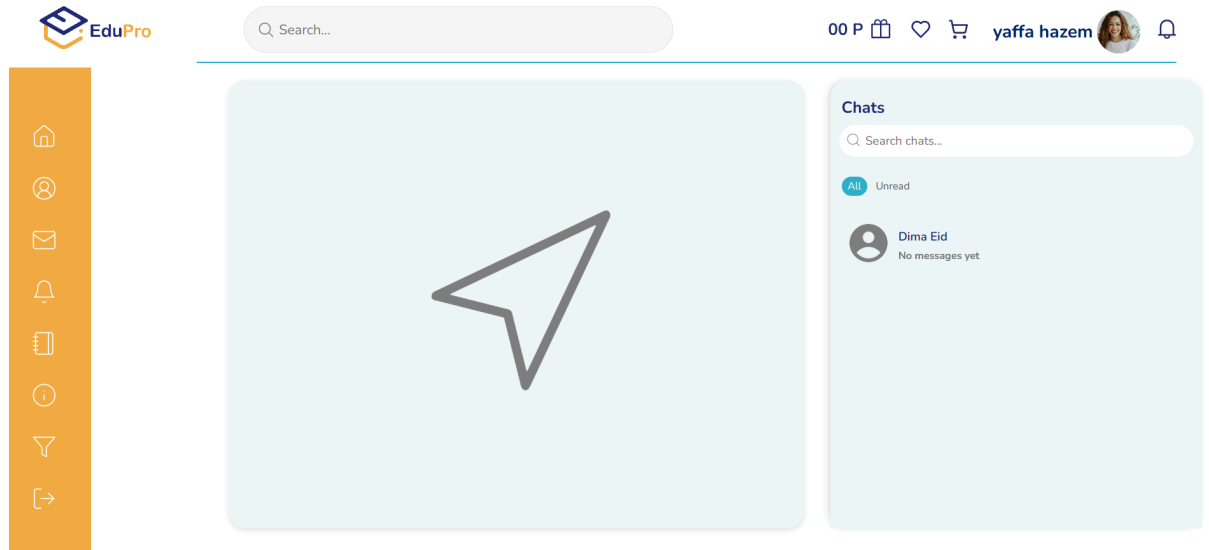
00 P     **Dima Naser**  

Notifications

All Unread

 **Emad Natsheh** Emad Natsheh Has Followed You
1 minute(s) ago

6.20 Chat



Our website includes an interactive chat system, which enhances the user learning experience by connecting with users and share knowledge

User can use chat bar to search about all users the community to start a new chat or continue existing one

Chats

🔍 Search chats...

All Unread



sema Hodali

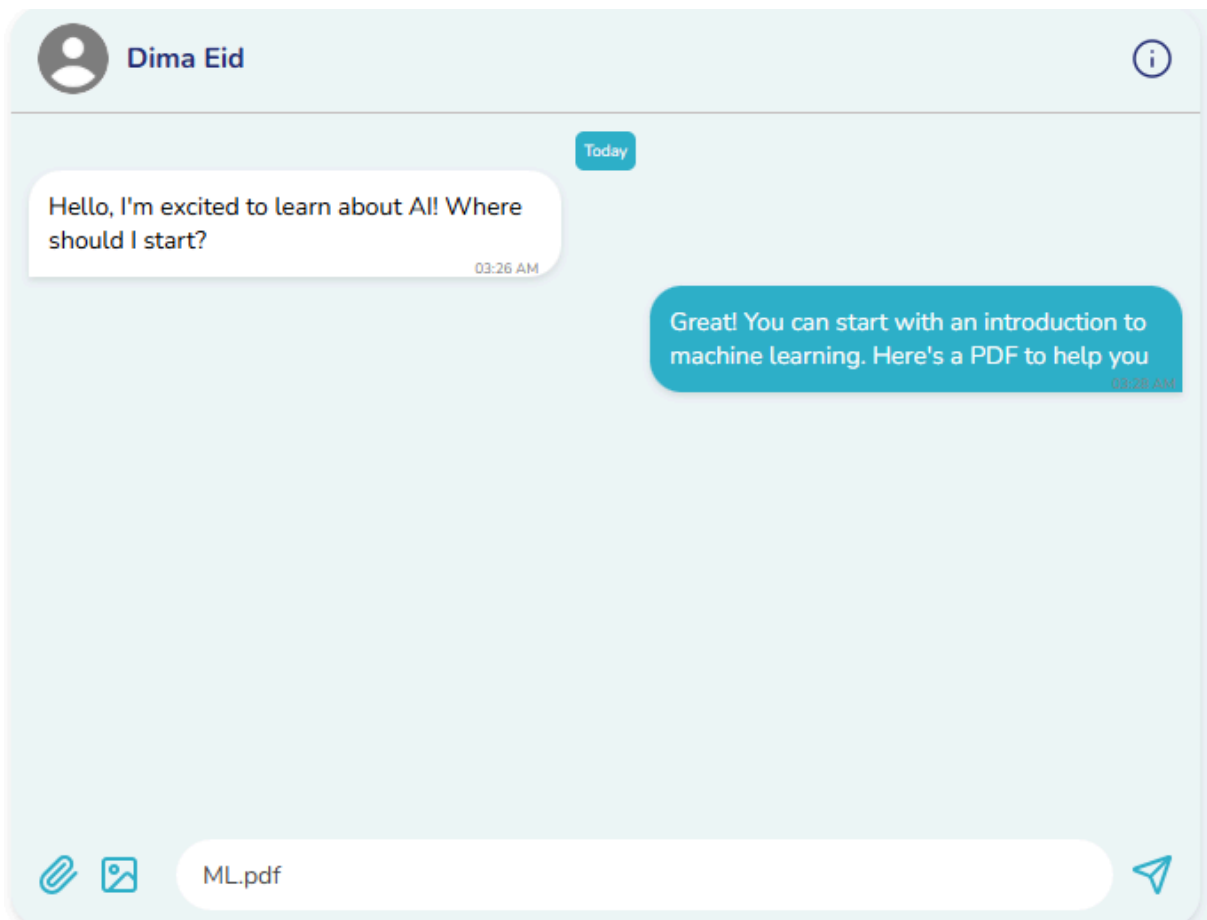
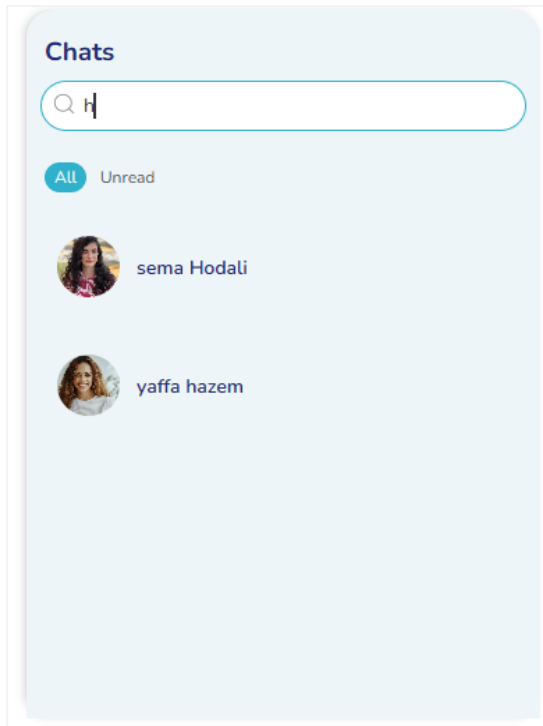
welcome

11 seconds ago



yaffa hazem

No messages yet





sema Hodali




January 29, 2025

Hello, I'm excited to learn about AI! Where should I start?

03:26 AM

Great! You can start with an introduction to machine learning. Here's a PDF to help you

03:28 AM

 ML.pdf


03:38 AM

Thanks! Do you have a video explaining neural networks?

03:43 AM

Yes! Here's a great video on neural networks

03:44 AM

 neural networks.mp4

03:45 AM



Aa





sema Hodali

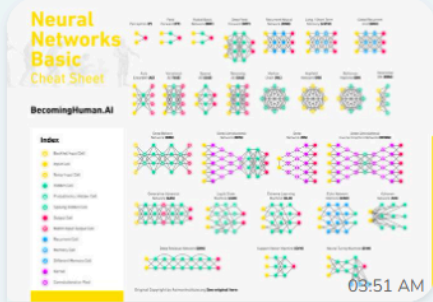


neural networks.mp4

03:45 AM

and here's a cheat sheet summarizing key concepts of neural networks for your review

03:50 AM



03:51 AM

thanks!

03:51 AM

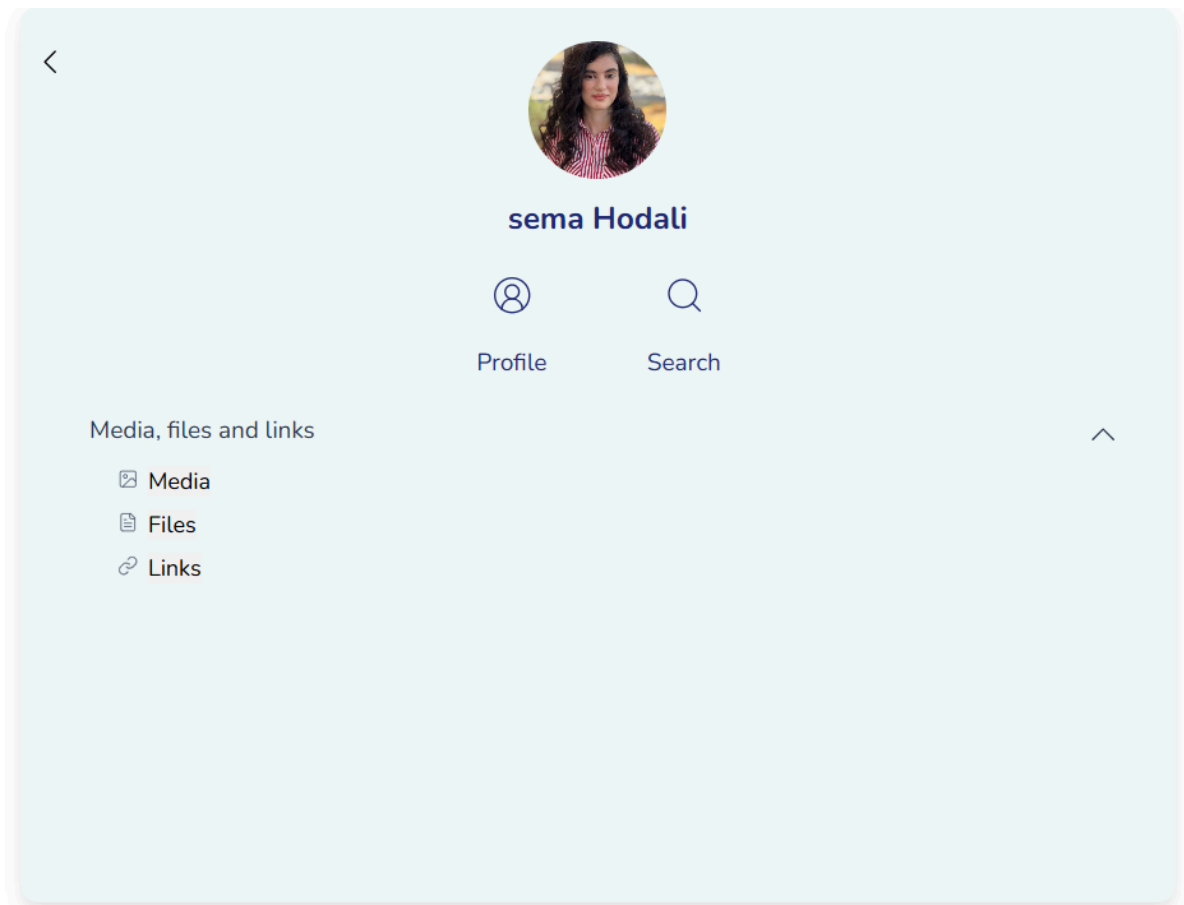
welcome

02:37 PM



Aa



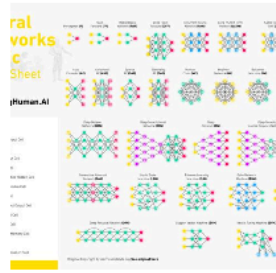


Users can share files, links, videos, images and texts with other users, student can ask tutor questions about his courses and ask about tips.

user can show and download media shared in the chat (files, images,..).i
In the chat info page users can show all media, files and links shared in the chat in one place to make it easy to find them later.

For more flexibility user can search in text chats to review and find chats about specific subject easier

Media



Files



 ML.pdf

 neural networks.mp4

Links



<https://www.ibm.com/think/topics/machine-learning>

links

t

Search



neural|

nd links

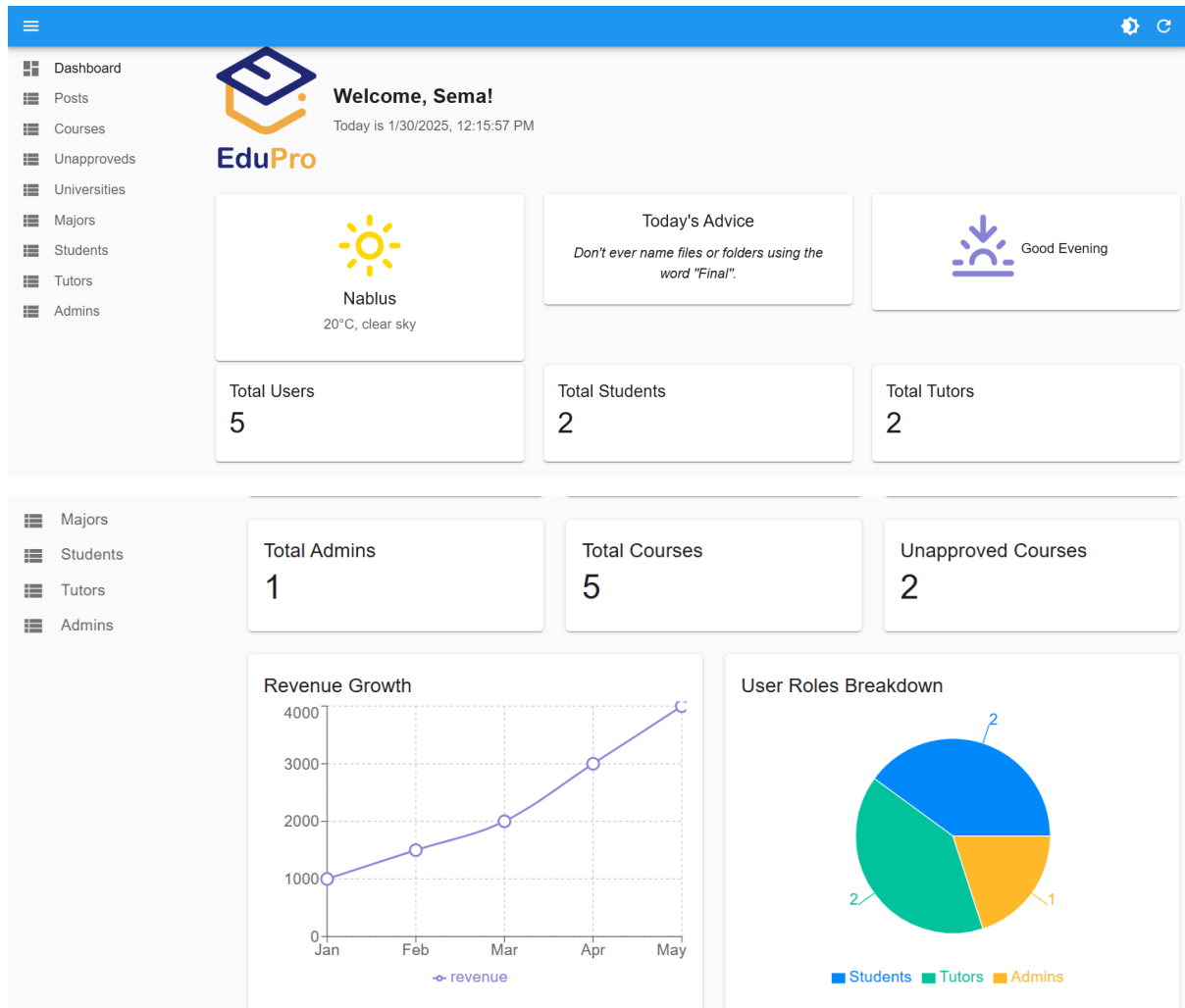
port

Thanks! Do you have a video explaining neural networks?

Yes! Here's a great video on neural networks

and here's a cheat sheet summarizing key concepts of neural networks for your review


6.21 Admin panel



For easier data management and faster development we used react-admin (which is a framework especially designed for creating admin panel in react) to build customized admin panel.

Admin panel dashboard shows a brief study about the website for admin, grid to show day weather (external api), and grid to give him new advice every time access the system, admin panel dashboard shows the number of website users and the number of total students, tutors,admins, courses, unapproved courses, admin can click to unapproved courses to show unapproved courses table with full details and approve them if it meet the criteria.



From the left bar admin can access all system tables (Admin, student, tutor, course, unapproved course, post,..)and can update, create, delete rows and data.

ID	Content	Created At	Updated At	User ID	Username	User Email	First Name	Last Name	User Role	User university ID	User image	User description	User Email	Likes	Post Image
19	hello every one!	1/29/2025	1/29/2025	4	semahodali@gmail.com	semahodali@gmail.com	sema	Hodali	2	2	media/usersprofile/4.png		semahodali@gmail.com	0	
23	<p>Become a Full-Stack Developer Today!</p> <p>Master both frontend and backend with our Full-Stack Development: Frontend, Backend and Backend course!</p> <p>What You'll Learn:</p> <ul style="list-style-type: none"> Build stunning websites with HTML, CSS, and JavaScript. Create dynamic apps using React, Node.js, and MongoDB. Perfect for beginners and professionals looking to enhance their skills. Enroll Now and start building your future today. Questions? Let's chat below! 	1/29/2025	1/29/2025	4	semahodali@gmail.com	semahodali@gmail.com	sema	Hodali	2	2	media/usersprofile/4.png		semahodali@gmail.com	0	

ID	Major Name	University
1	Computer Engineering	1
2	Mathematics	1
3	Computer Science	1
4	Cyber Security	1
5	Finance	1
6	Mathematics	2
7	Accounting	2
8	Business Administration	2
9	Computer Engineering	2
10	Music	2
11	Contemporary Visual Art	2
12	Graphic Design	1
13	Civil Engineering	3

ID	University Name
1	An-Najah National University
2	Birzeit University
3	Palestine Polytechnic University
4	Arab American University
5	Palestine Technical University
6	Harvard University
7	University of Oxford


Rows per page: 10 1-7 of 7

ID	First Name	Last Name	Email	Active	Role	University ID	Major ID	Description	Image
2	Dima	Naser	s12029305@stu.najah.edu	✓	2	1	1	<p>Eng. Dima is a software engineer, educator, and technology consultant with a passion for empowering individuals to excel in the fields of software development and design.</p>	
4	sema	Hodali	semahodali@gmail.com	✓	2	2	8		

Rows per page: 10 1-2 of 2

Admins										
	ID	First Name	Last Name	Email	Active	Role	University ID	Major ID	Description	Image
<input type="checkbox"/>	6	sema	Hodali	semahodali@gmail.com	✓	3	1	1		

Rows per page: 10 1-1 of 1

Courses											
	Id	Course Title	Subtitle	Category	Price	Currency	Tutor First Name	Tutor Last Name	Cover Image	Average Rating	Course Description
<input type="checkbox"/>	4	Full-Stack Development Practicing FrontEnd And BackEnd	A complete guide to becoming a full-stack developer with hands-on projects in HTML, CSS, JavaScript, React, Node.js, and MongoDB. Perfect for beginners and professionals alike!	IT	25	USD	Dima	Naser		4	Dive into the exciting world of full-stack development with this comprehensive course designed to turn you into a skilled developer. This course covers the basics and advanced topics, including creating dynamic frontends with React, building powerful backend APIs using Node.js, and managing databases with MongoDB. You'll work on real-world projects like an e-commerce website, a chat application, and a personal portfolio. Whether you're starting from scratch or enhancing your existing skills, this course will prepare you for a successful career in web development. By the end of the course, you'll have a portfolio of projects to showcase your expertise to potential employers or clients.

Unapprovals											
	Id	Course Title	Subtitle	Category	Price	Currency	Tutor First Name	Tutor Last Name	Cover Image	Average Rating	Course Description
<input type="checkbox"/>	19	Introduction to Python	A beginner's guide to Python programming	DEVELOPMENT	49.99	USD	Dima	Naser		0	This course will help you learn the basics of Python programming from scratch.
<input type="checkbox"/>	21	Introduction to Python2	A beginner's guide to Python programming	DEVELOPMENT	49.99	USD	Dima	Naser		0	This course will help you learn the basics of Python programming from scratch.

Rows per page: 10 1-2 of 2

Create Admin	
First Name	hala
Last Name	sami
Email	halasami@gmail.com
<input checked="" type="checkbox"/> Active	
Role	3
University ID	1

Tutor Last Name
Naser

Cover Image
Drop a picture to upload, or click to select it.

Average Rating
0

Course Description
This course will help you learn the basics of Python programming from scratch.

approve
false

Create Admin

First Name
hala

Last Name
sami

Email
halasami@gmail.com

Active

Role
3

University ID
1

University ID
1

Major ID
1

Description
Adim

Image
Drop a picture to upload, or click to select it.



SAVE

Admins

+ CREATE EXPORT

<input type="checkbox"/>	↑ ID	First Name	Last Name	Email	Active	Role	University ID	Major ID	Description	Image
<input type="checkbox"/>	6	sema	Hodali	semahodali@gmail.com	✓	3	1	1		
<input type="checkbox"/>	7	hala	sami	halasami@gmail.com	✗	3	1	1		

Chapter 7

Conclusion and Recommendations

7.1 Conclusion

This project developed an educational and social media platform, as a result we were able to create an application for microlearning that includes courses, posts, and chat. The program was thoughtfully created to be user-friendly and accommodate the needs of students all around the world, especially students who can't learn in person at universities and schools, and don't have time for long sessions and meetings.

8.2 Future work

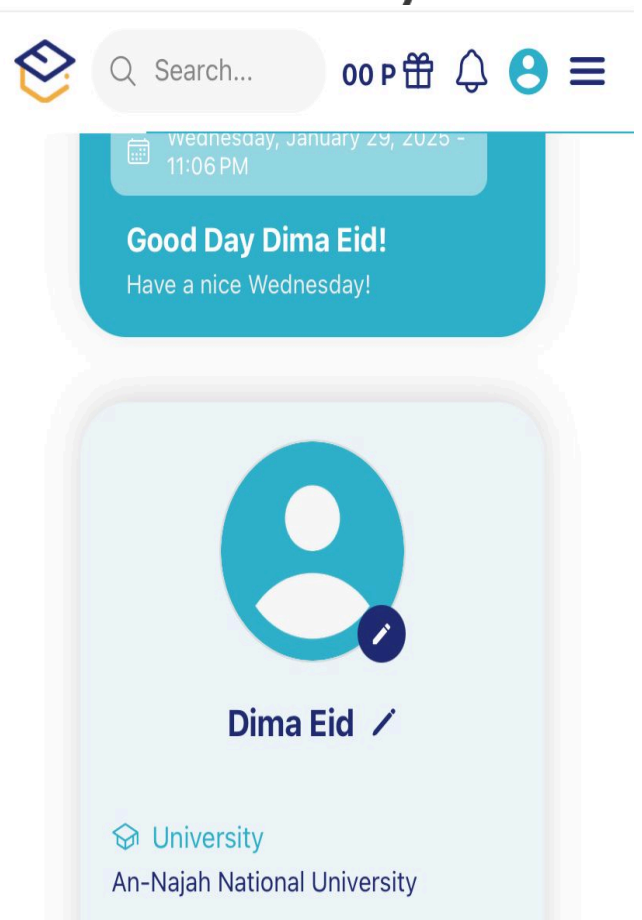
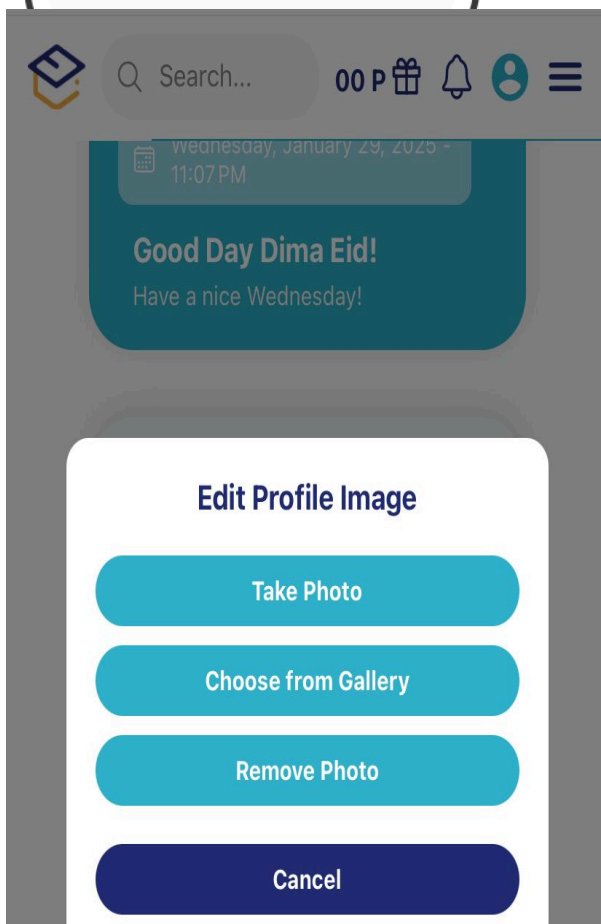
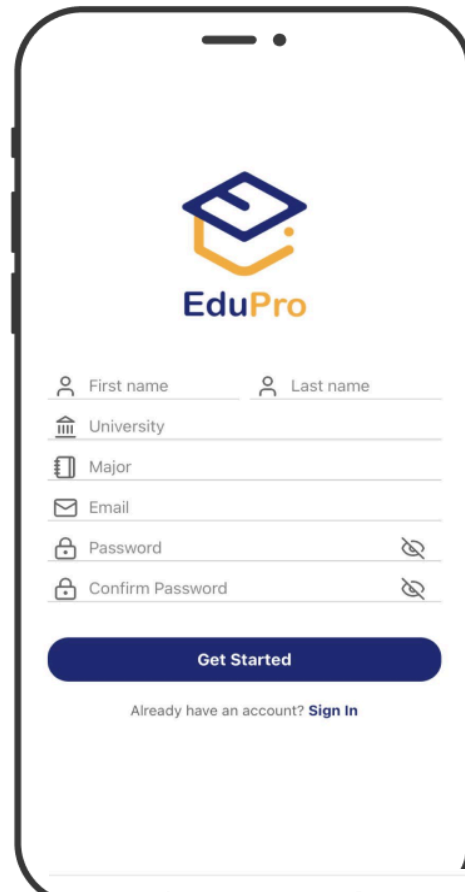
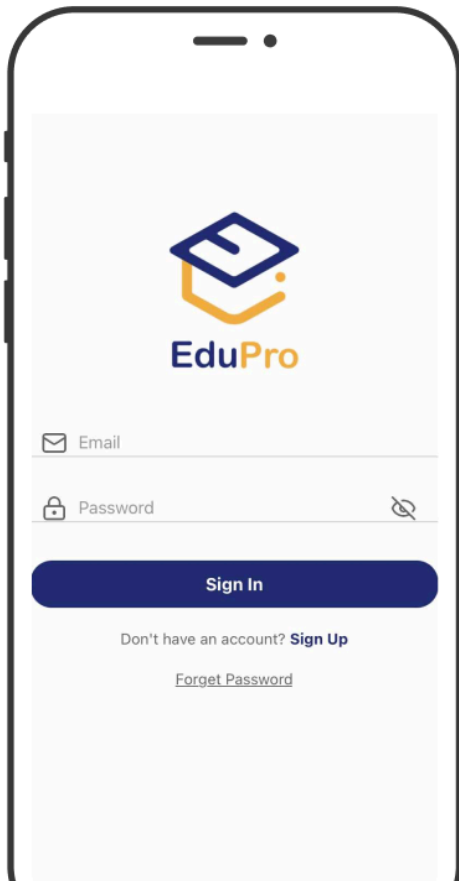
We are extremely sure of what we are doing and have a very optimistic outlook on the future of EduPro's success. We believe that EduPro has the potential at some future point to be a big e-learning platform similar to Udemy, DataCamp, and Udacity. The intention is continual platform development and expansion so that this platform can be accessed by a crowd and incorporate a wider educational experience.

In order to bolster the credibility of EduPro we will strive to accredit and legitimize its certificates to give weight to declared learning achievement. In addition, we postulate an ad system for how tutors can advertise their classes broadly. A couponing system will further be provided to discourage and incentivize enrollments through discounts and promotional rates.

A central challenge as we scale up is to enlarge the platform's capacity to reliably support a sizeable crowd of students and faculty, with a high level of performance and stability. For this, we plan to use AWS cloud computing to improve database management, scaling, and security.

In the very near future we will attempt to boost the AI capabilities of EduPro for its practical application in analyzing the user's interaction, learning, and engagement behavior patterns. This will allow us to provide customized course recommendations, optimize learning routes, and provide real-time feedback on quizzes and coding assignments. In addition, AI will offer tutors data-based and remedial information on what to design and improve in both the content of the course and the student experience. These advances will lead to a healthy, intelligent, and user-focused learning experience.

Chapter 8 mobile





Search...

00 P



< **January 2025** >

Sun	Mon	Tue	Wed	Thu	Fri	Sat
26	27	28	29	30	31	1

Select a date to view reminders

No reminders for this date.

+ Add Reminder

Saved

Follows

Daily Streak

2 days

M	T	W	T	F	S	S
---	---	---	---	---	---	---



Search...

00 P



< **February 2025** >

Sun	Mon	Tue	Wed	Thu	Fri	Sat
2	3	4	5	6	7	8

Reminders for 06/02/2025

No reminders for this date.

+ Add Reminder

Saved

Follows

Daily Streak

2 days

M	T	W	T	F	S	S
---	---	---	---	---	---	---



Q Search...

00 P



< February 2025 >

Sun	Mon	Tue	Wed	Thu	Fri	Sat
2	3	4	5	6	7	8

Reminders for 06/02/2025

Zoom meeting with Sema 12:00 AM [Edit](#) [Delete](#)

Ai Lecture with dr Emad 4:00 PM [Edit](#) [Delete](#)

+ Add Reminder

Saved

Follows

Daily Streak

2 days

M	T	W	T	F	S	S
---	---	---	---	---	---	---



Q Search...

00 P



< February 2025 >

Sun 2 Mon 3 Tue 4 Wed 5 Thu 6 Fri 7 Sat 8

Add Reminder

Zoom meeting with Sema

12 : 00 AM

Save

Cancel

Daily Streak

2 days

M T W T F S S



Search...

00 P



< January 2025 >

Sun 26 Mon 27 Tue 28 Wed 29 Thu 30 Fri 31 Sat 1

Add Reminder

zoom meeting with Sema

12 : 00 AM

Save

Cancel

⚡ Daily Streak

2 days

M

T

W

T

F

S

S



Q Search...

00 P



Welcome to EduPro

EduPro is your ultimate platform for online learning and skill development. Join a community dedicated to providing high-quality education tailored to your needs.

About EduPro

At EduPro, we believe in empowering individuals through accessible and comprehensive learning experiences. Our platform offers courses across various domains, ensuring everyone finds something to ignite their curiosity and fuel their career growth.

Our Mission

EduPro aims to bridge the gap between traditional and digital learning by offering an all-inclusive platform for skill enhancement and career growth.

What Our Students Say

"EduPro transformed my career! The courses are practical, engaging, and easy to follow."

- John Doe



Q Search...

00 P

"EduPro transformed my career! The courses are practical, engaging, and easy to follow."

- [John Doe](#)

"Thanks to EduPro, I was able to land my dream job. The content quality is unmatched!"

- [Jane Smith](#)

Meet Our Team



Dima Eid

Software Engineer

Dima is a dedicated software engineer with a passion for building scalable and robust systems, ensuring every solution is efficient and user-friendly.



Q Search...



Dima Eid

Software Engineer

Dima is a dedicated software engineer with a passion for building scalable and robust systems, ensuring every solution is efficient and user-friendly.



Sema Hodali

Software Engineer

Sema is an experienced software engineer with expertise in front-end technologies, delivering outstanding user experiences and modern designs.



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💡 **Perfect for beginners and professionals** looking to enhance their skills!

🎯 **Enroll Now** and start building your future today.

💬 Questions? Let's chat below! 📌



Full-Stack Development Practicing FrontEnd And BackEnd

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❤️ 3

💬 2

❤️ Like

💬 Comment



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Learn AWS, Azure, Google Cloud, and more!
Deploy, scale, and master cloud fundamentals.

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 Build your future today!

Master AI Fundamentals: Build Intelligent Applicat

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 1

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Comments



yaffa hazem

great course! can I ask about course prerequisites?



Dima Naser

sure! the course prerequisites is (HTML, CSS, JS)



Write a comment



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All

Unread



Dima Naser Dima Naser

Created a new Post

2 day(s) ago

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Create a Post



caption

 Choose Image

Selected File: image.jpg

Select a course:

Select a course

Full-Stack Development Pra...

Master AI Fundamentals: Bu...

Introduction to Python

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Search...

00 P    

Course Title

e.g., CSS for Beginners

Course Sub Title

e.g., Master the fundamentals of CSS.

Description

Write a detailed description

0/1000 characters

Category

Choose a category

Development

Business

Pricing (in USD)



Search...

00 P    

Pricing (in USD)

USD (\$)

15.00

What will students learn in your course?

Objective 1

[Add Objective](#)

Course Image

Upload your course image

Promotional Video

Upload a promotional video

[Create Course](#)



Search...

00 P



Section 1



Section Description

+ Video

+ PDF

+ Code Exercise

+ quiz

Section 2



Section Description

+ Video

+ PDF

+ Code Exercise

+ quiz

+ Add Section

Next



Search...

00 P 



Section 1

Section Description

Subsection Title 

Subsection Description

Upload Video

Subsection Title 

Subsection Description

Upload PDF

+ Video

+ PDF

+ Code Exercise

+ quiz

+ Add Section

Next



Search...

00 P



Section 1



Section Description

New Quiz



Subsection Description

Question 1

Option 1



Option 2



Option 3



Option 4



+ Video

+ PDF

+ Code Exercise

+ quiz

+ Add Section

Next



Search...

00 P



Section 1



Section Description

New Code Exercise



Subsection Description

Exercise Title

Exercise Description

Default Code

input test case1

output test case1

input test case2

output test case2

+ Video

+ PDF

+ Code Exercise

+ quiz

+ Add Section

Next



Q Search...

00 P 



Authenticate Your Experience



Upload your CV

 Upload

Submit

Your experience will be taken into consideration in your submission to provide this course.



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Top Picks



React Native: Build Cross-Platform Mobile Applications.

Learn React Native to create powerful, cross-platform mobile apps for iOS and Android. Cover UI design, APIs, navigation, state management, and deployment in this comprehensive course.

Instructor: Sema Wael



60 USD



Building Large LLM AI Practical Guide

Learn to design, train, and deploy large language models (LLMs) using advanced AI techniques. This course covers model preparation, fine-tuning, and deployment strategies.

Instructor: Emad N...



Trending Courses



Complete Web Design: from



Corporate Finance



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Trending Courses



The ULTIMATE Guide to Prompt Engineering Perfect experience.

Learn the art of crafting effective prompts to unlock the full potential of large language models like GPT, solving real-world problems and building intelligent applications.

Instructor: John Martees



45 USD



Complete Web Design from Figma to Web

Master the art of user-centered designs on wireframing, prototyping, testing, and crafting beautiful interfaces.

Instructor: Dima Martees



New Arrivals



What is Cloud Computing?



Master AI Fundamental



Search...

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Class in Modern Cloud Computing Fundamentals.

Get the full potential of cloud computing by mastering architecture, deployment strategies, cost optimization, and security techniques for critical real-world applications.

Instructor: Dima Naser



50 USD

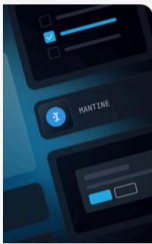
Master AI Fundamentals: Intelligent Applications

Learn the foundations of Artificial Intelligence, machine learning, and neural networks for intelligent applications.

Instructor: Dima Naser



Recommended for You



Cross-Platform Applications.

Build state-of-the-art powerful, cross-platform apps for iOS and Android using APIs, RESTful services, and responsive design.

60 USD



Node.js, Express, MongoDB & More: The Complete Bootcamp.

Master full-stack JavaScript development with Node.js, Express, and MongoDB. Build scalable, real-world applications and become a professional back-end developer.

Instructor: Jonas Ron

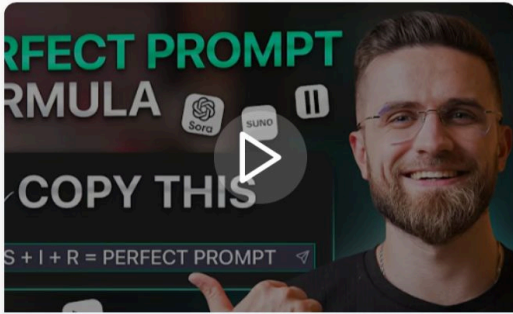


95 USD



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The ULTIMATE Guide to Prompt Engineering Perfect experience.

Learn the art of crafting effective prompts to unlock the full potential of large language models like GPT, solving real-world problems and building intelligent applications.

★★★★☆ 4.0



\$ 45

Requirements

Basic understanding of AI and natural language processing.

Level Needed



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About



John Martees

★ 4.0 Rating

👤 1 Reviews

👤 0 Students

📅 1 Courses

👤+ 0 Followers

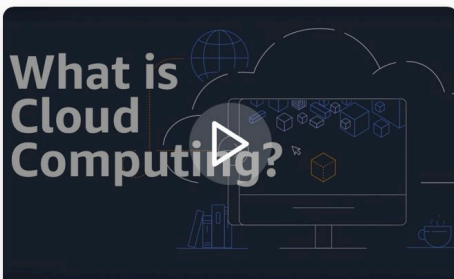
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Masterclass in Modern Cloud Computing Fundamentals.

Unlock the full potential of cloud computing by mastering architecture, deployment strategies, cost optimization, and security techniques with practical real-world applications.

★★★★☆ 4.8



\$ 50

Requirements

Familiarity with basic programming and computer networks.



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Course Description

Explore the revolutionary world of cloud computing in this comprehensive course. From understanding the basics to mastering advanced topics, this program covers everything

[Show More](#)

What You'll Learn

- ✓ Understand Cloud Computing Fundamentals.
- ✓ Master Popular Cloud Platforms.
- ✓ Design Scalable and Secure Architectures.
- ✓ Implement Cost Optimization Strategies

[Show More](#)

This Course Includes:

3 students enrolled

1.5 hours on-demand video

3 practice test 5 sections

Access on mobile and TV

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Course Content

5 sections

Introduction to Cloud Computing. 3 topics

Understanding Cloud Service Models. 3 topics

Explore the three primary cloud service models (IaaS, PaaS, SaaS) and understand their use cases with real-world examples.

Introduction to Cloud Service Models. 10 min

Comparing Service Models for Business Needs. 10 min

Test Your Understanding. 300 min

Cloud Deployment Models. 3 topics



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Understanding Cloud Service Models.

3 topics



Cloud Deployment Models.

3 topics



Security and Compliance in the Cloud.

3 topics

Learn essential strategies to secure cloud environments and ensure compliance with industry standards.



Top Cloud Security Threats to Watch For.

300 min



Implementing Encryption and Access Control.

300 min



Checklist for Ensuring Cloud Security Compliance.

900 min



Practical Cloud Implementation.

2 topics



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Course Content

5 sections

- Introduction to Cloud Computing.** 3 topics

This section lays the groundwork for understanding the cloud's role in modern technology.

- What is Cloud Computing? 10 min

- Glossary of Cloud Terminologies. 10 min

- Cloud Basics Quiz 300 min

- Understanding Cloud Service Models.** 3 topics

- Cloud Deployment Models.** 3 topics



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Introduction to Cloud Computing.

3 topics



Understanding Cloud Service Models.

3 topics



Cloud Deployment Models.

3 topics



Security and Compliance in the Cloud.

3 topics



Practical Cloud Implementation.

2 topics

Apply what you've learned in a hands-on coding exercise that involves deploying a simple cloud-based application.



Setting Up Your First Cloud Application

300 min



Coding Exercise Test

1200 min



Home



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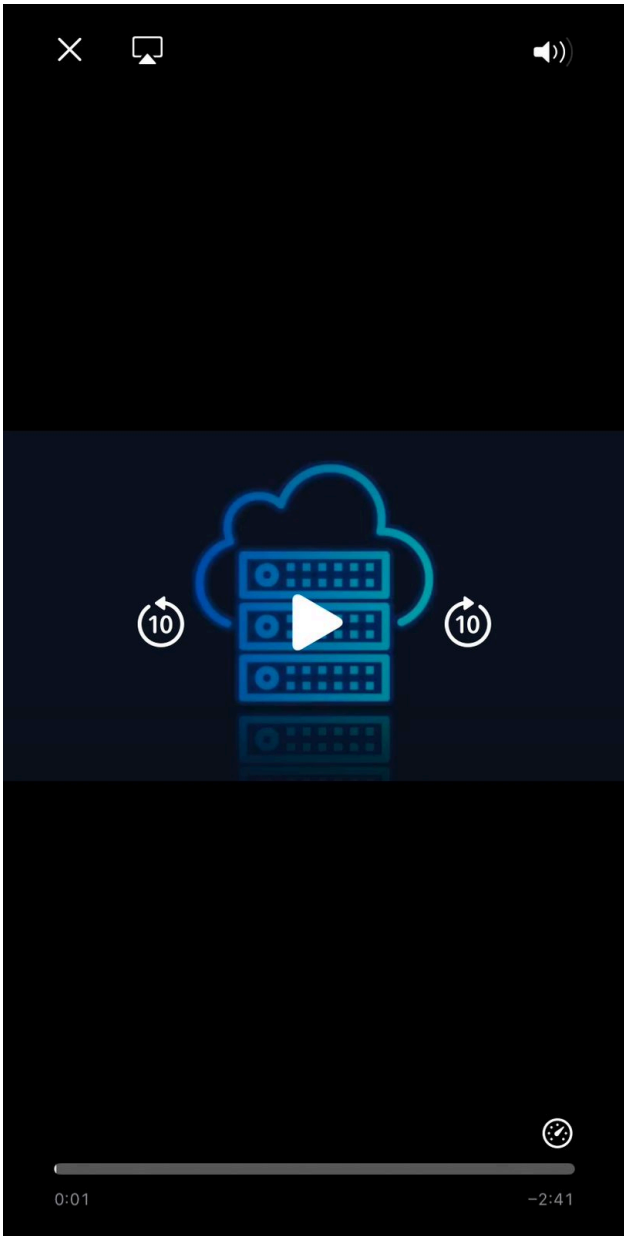
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Introduction to Cloud Computing.

3 topics

Test Your Understanding.

Which service model allows you to manage the operating system and application while the provider handles hardware resources?

SaaS

PaaS

IaaS

FaaS

Close



Security and Compliance in the Cloud.

3 topics



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Introduction to Cloud Computing.

3 topics

Test Your Understanding.

Which service model allows you to manage the operating system and application while the provider handles hardware resources?

SaaS

PaaS

IaaS

FaaS

Wrong Answer

Try again.

OK

Close



Security and Compliance in the Cloud.

3 topics



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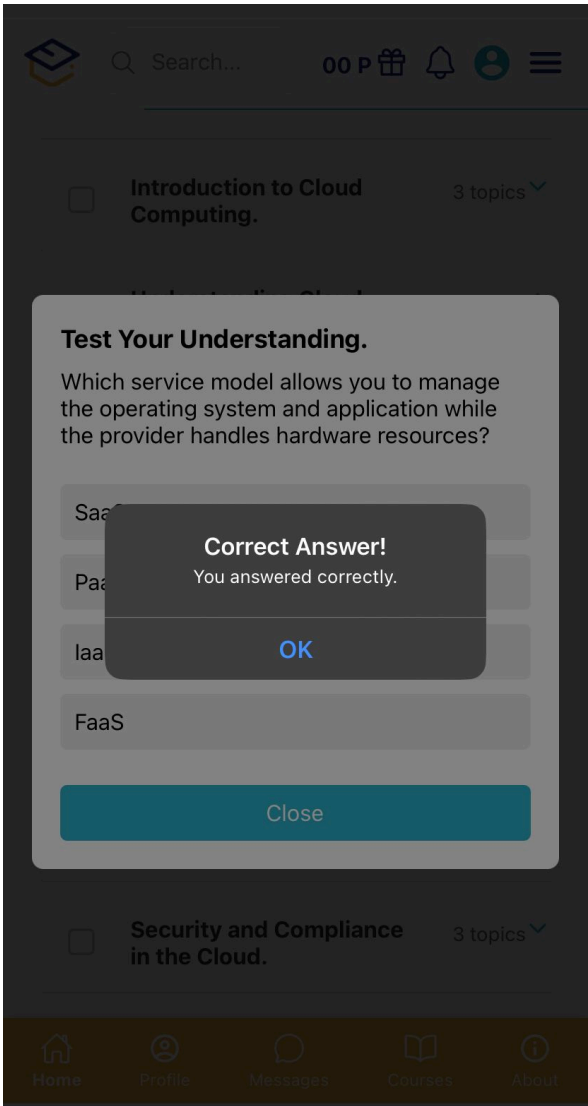
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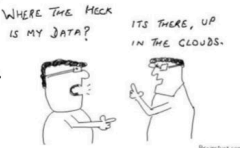
Introduction to Cloud Computing

ID2210

Jim Dowling


Cloud Computing

- Cloud computing** is the delivery of hosting services that are provided to a client over the Internet.
 - Enable large-scale services without up-front investment.



Practical Cloud Implementation.
2 topics ^

Apply what you've learned in a hands-on coding exercise that involves deploying a simple cloud-based application.


Setting Up Your First Cloud Application
300 min ✓ ↗


Coding Exercise Test
1200 min ✓ ↗

Write a Python script to count how many times a specific letter appears in a given string.

Language:

python

```
1 # Function to calculate the cost of
2 def calculate_cost(storage_used, cost_per_gb):
3     # Write your logic here
4     return 0 # Placeholder return statement
5
6 # Test the function
7 if __name__ == "__main__":
8     print("Cloud Storage Cost Calculator")
9
10    # Test Case 1
11    result1 = calculate_cost(100, 0.02)
12    print("Test Case 1 Result:", result1)
```



Output

Run Code

```
8     print("Cloud Storage Cost Calcula
9
10    # Test Case 1
11    result1 = calculate_cost(100, 0.0
12    print("Test Case 1 Result:", res
```



Output

[Run Code](#)

Click 'Run Code' to see the output here.

Test Cases:

Test Case 1

Input:

100 0.02

Expected Output:

2.0

 Dark Mode

Write a Python script to count how many times a specific letter appears in a given string.

Language:

python

```
1  # Function to calculate the cost of cloud storage
2  def calculate_cost(storage_used, cost_per_gb):
3      # Write your logic here
4      return 0 # Placeholder return statement
5
6  # Test the function
7  if __name__ == "__main__":
8      print("Cloud Storage Cost Calculator")
9
10     # Test Case 1
11     result1 = calculate_cost(100, 0.02)
12     print("Test Case 1 Result:", result1)
```



Output

Run Code



Dima Naser

☆ 3.9 Rating

👤 616 Reviews

👤 10 Students

📁 6 Courses

👤+ 2 Followers

Eng. Dima is a software engineer, educator, and technology consultant with a passion for empowering individuals to excel in the fields of software development and design.

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Dima Naser

☆ 3.9 Rating

👤 616 Reviews

👤 10 Students

📁 6 Courses

👤+ 3 Followers

Eng. Dima is a software engineer, educator, and technology consultant with a passion for empowering individuals to excel in the fields of software development and design.

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Eng. Dima is a software engineer, educator, and technology consultant with a passion for empowering ... [View More](#)

★ 3.9 Rating

👤 616 Reviews

👨‍🎓 10 Students

Courses



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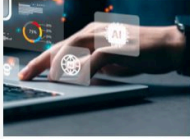
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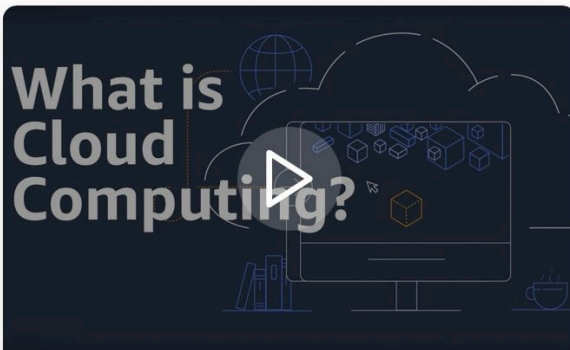
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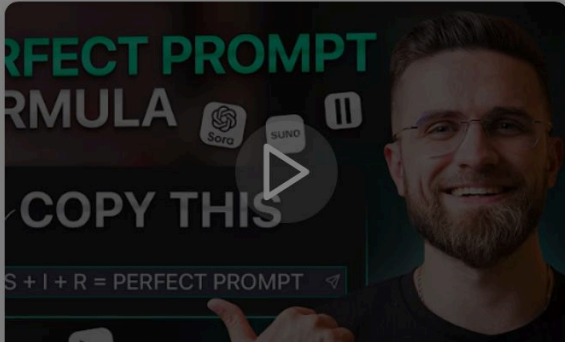


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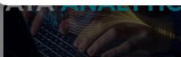
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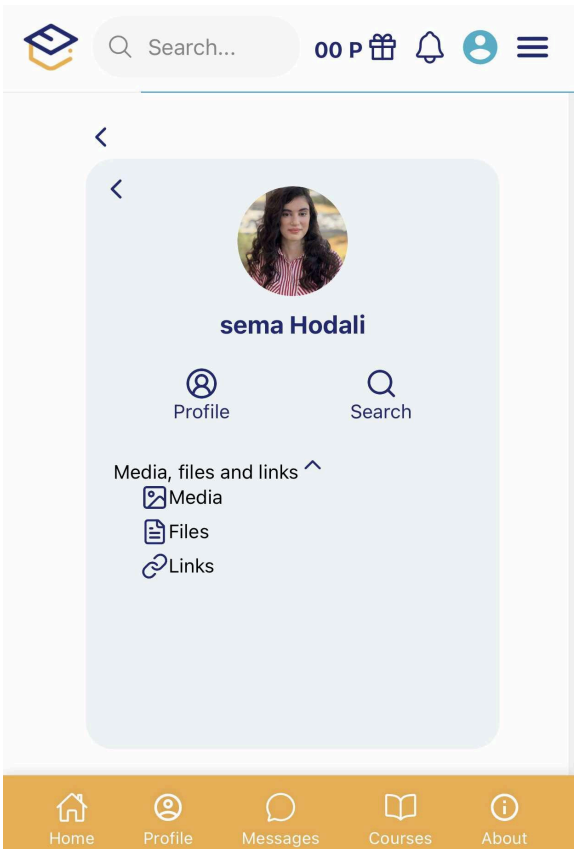
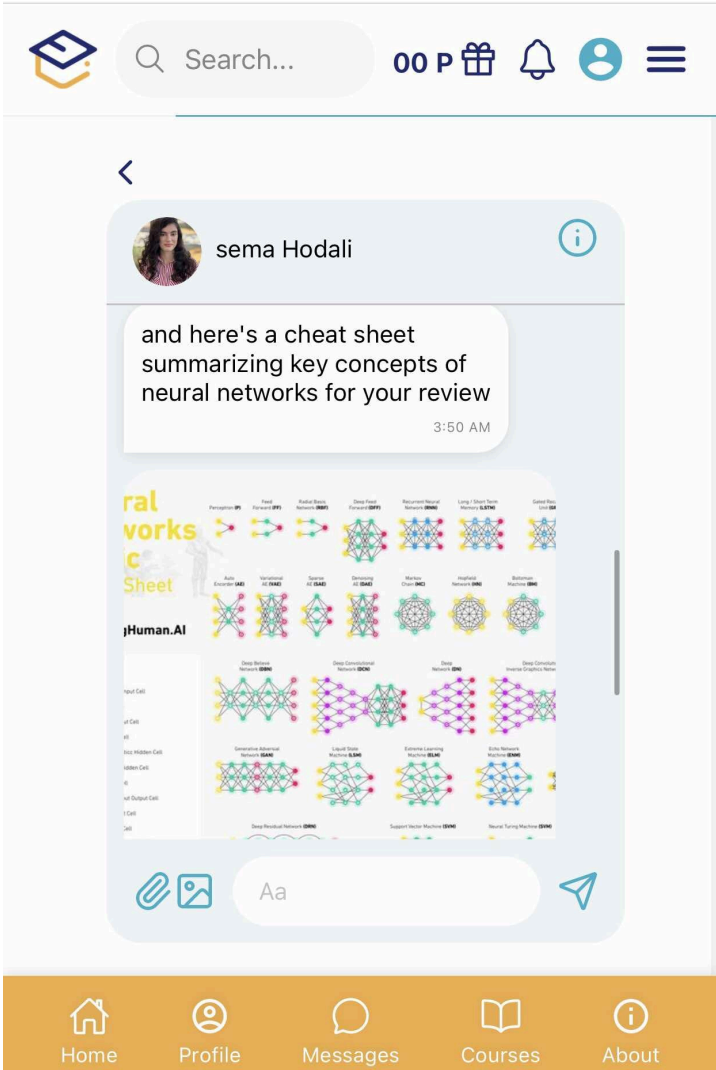
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