ZARKASHA

AN-NAJAH NATIONAL UNIVERSITY
FACULTY OF INFORMATION TECHNOLOGY
COMPUTARIZED INFORMATION SYSTEM

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DECEMBER 22, 2016

AN-NAJAH NATIONAL UNIVERSITY

2016

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الى هادي الامة وقنديلها ومنبع علمها الى رسولنا الكريم وقدوتنا الخالدة محمد ﷺ ....

الى ثرى هذا الوطن وكل من عبر برفق وخدم ترابه، اليك فلسطين...

الى كل الارواح التي التحفت السماء دفاعا عنه وتلك التي ما زالت قابعه خلف القضبان تنتظر دورها، الى الشهداء والاسرى ...

الى الايادي الرقيقة التي دعمتنا بكل حب وتجعدت لتأمن لنا العيش الكريم، الى ابائنا الكرام...

الى الصدور الحنونة التي احتضنتنا كل لحظة وسهرت لراحتنا دون كلل، اليك امهاتنا العزيزات...

الى جنتنا على الارض عائلاتنا الكريمات...

الى كل من رافقنا في دربنا واسكننا بيت صداقته، الى صديقاتنا الغاليات...

الى من ارتكزنا عليهم في صعودنا وحالوا دون انحنائنا، اليكم اساتذتنا الكرام ...

الى من غرس فينا العلم والعمل، الفكر والمثابرة، الى أستاذنا الفاضل عبد الرزاق النتشة...

شكرا لوجودكم معنا فنحن وعملنا هذا نتاج ما غرستم ...

Abstract:

Over time, humans need for clothing was only as all the necessities of life including food or shelter. It has been associated with the need for prevention of weather conditions such as a cold and heat.
The dress has evolved from being just the skins of animals and their wool and their fur and feathers to clothes sewed with so many patterns, models and types.
The world of clothing is always changing, as new cultural influences meet technological innovations.
People throughout the world also view clothing as a reflection of current fashion trends within a culture... Wearing certain colors, brands and types of clothing allows an individual to affiliate himself with a particular group.
Since clothing can be influential in a person's life at any age, so the need of dressing well has became necessity!
So in order to get the perfect matched outfit, dress well and be unique, there became a need for an application to fulfil this desire.
The main goal of "Zarkasha" is to help the user to achieve the outfit he/she desire, to show up their style and personality, by help the user with getting matching suggestion on a particular clothing item to get unique, perfect and special outfit.

Chapter One

Introduction

1.1 General:

Being dressed in a socially acceptable combination of clothes is extremely important in a modern society, especially in cases where professionalism is synonymous to attire. Wearing clothes that match in color and pattern with one another is, up to a point, both a skill and a part of common sense.

Zarkasha will give the user suitable match suggestions for a clothing piece they have or the may buy on the future , suggestions follow international fashion and mode rules , this clothing match suggestions the user might have them on their closet or one of our subscribed stores may provide or it's just inspire the user choice .

1.2 Project Scope:

This system will provide an application interface to create accounts for users, so they can enter the description of the cloth item they want to get match suggestion for it, and get the weather recommendation, also they can interact with other users by like their liked choice from the suggestions.

Project Success: The project will be determined successful if it achieved the services for the users.

1.3 Problem Specification:

This project will involve creating a mobile application for the purpose of helping users to choose the appropriate outfit, providing weather news, and social communication…. etc.
In modern life style, wearing the appropriate outfit became one of the most important things in your daily life, the way you look and dress give the first impression to the people when they see you for the first time.
In business world, daily life and in special events looking good, nice and elegant has became one important issue.
And in fact many people have problem in matching clothe pieces together, and some of them take long time to find the suitable color and pattern, this application will help people to simply find the appropriate and perfect outfit, in a few minutes.

1.4 Goals and Objectives:

1. Help Users choosing the perfect outfit.
2. Enhance users confidence by dressing well and beautiful.
3. Save time and effort in matching clothes.
4. Provide users with weather recommendation.

1.5 Motivations:

The need for such application in nowadays, considering that there is no application with the same functionalities, encourage us to come up with this idea. Besides our intense desire to be unique and special.

1.6 System Requirement:

The user can register to the application.
The User can login to the application.
The user will have a profile.
The user can change his profile picture.
The user can change his password.
The user can get weather temperature and clothing recommendation.
The user can describe the item they have to get matching suggestion on using a form.
The user can get suggestions.
The user can get sale coupon for items from a store.
The user can like items from suggestions.
The user can see store external URL.
The user can see others likes items.
The user can logout.
The store can register and login.
The store can add items.
The store can edit items.
The store can view list of new users who have coupons.
The store can change password.
The store can change email.
The admin can add items.
The admin can edit items.

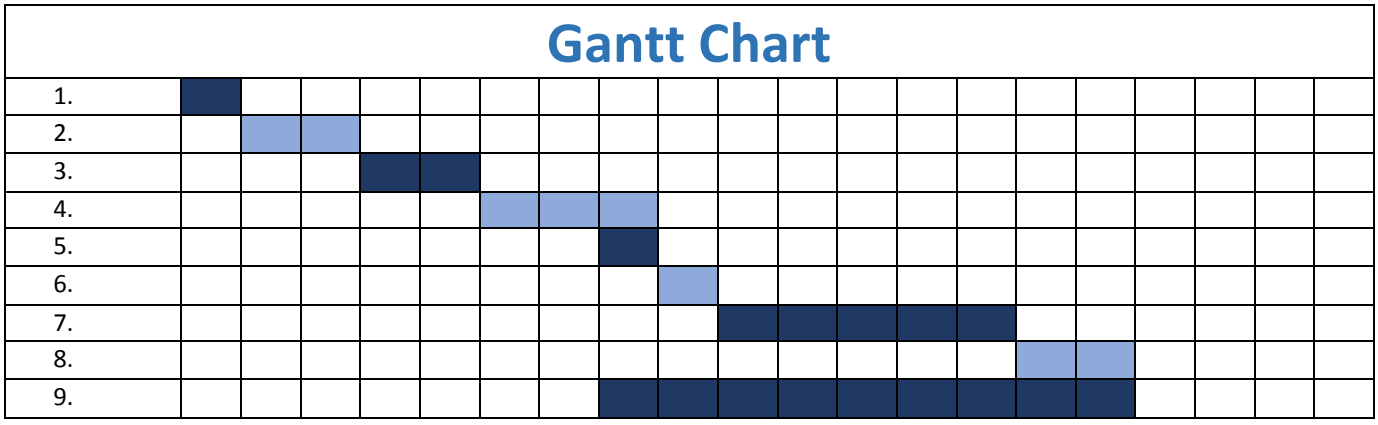
1.7 Project Plan and Schedule:

This project started at the beginning of August, 2016 and should be completed by the end of December, 2016.

Table 1.1: Project schedule task

Task#	Task Name	Length (Week)
1	Study Idea	1 Week
2	General Analysis	2 Week
3	Collect Data from Internet and Expert Fashion	2 Week
4	Find Methodology and Tools. Database Creation	3 Week
5	UMLs Diagram Creation	1 Week
6	Design	1 Week
7	Coding	5 Week
8	Testing	2 Week
9	Prepare Documentation	9 Week

Table 1.2: Gantt chart



1.8 Outline of the Project:

Zarkasha application in its simplest form is described as the suggest apriority items for users to ware, social communication, weather recommendation....
To make the outfit of users more unique and beautiful.

Chapter Two

Literature and Methodology

2.1 General

This stage is very important because fist, it contains the five stages that we must use it in any project namely planning, analyzing, designing, implementation, and maintenance. Second, every stage depends on the other so, if we find errors in one of stage, we can go back, find the bugs and solve them easily then continue.

2.2 Current Systems

There is no current exists system that include all the features and functions of our project. There are many projects that contain some function like : buy clothes online or social communication or something else.

2.4 Feasibility Study

Feasibility study is an evaluations of the system proposed regarding its workability, impact on the organization ability to meet user needs and effective use of resource. Thus, when any new application is proposed, it normally goes through a feasibility study before it is approved for development.
Five tests of feasibility all equally important are studied:

- **Operational feasibility:** Operational feasibility must be established. To do this it is necessary to consult the system users to see if the proposed solution satisfies user objectives and can be fitted into current system operation.

- **Technical feasibility:** The consideration that is normally associated with technical feasibility of the organization where it is to be developed and implemented. By taking there into consideration before developing the resources availability at this organization was studied. Thus this project is considered technically feasible for the development. The work for project can do current equipment, existing software technology and available personal.

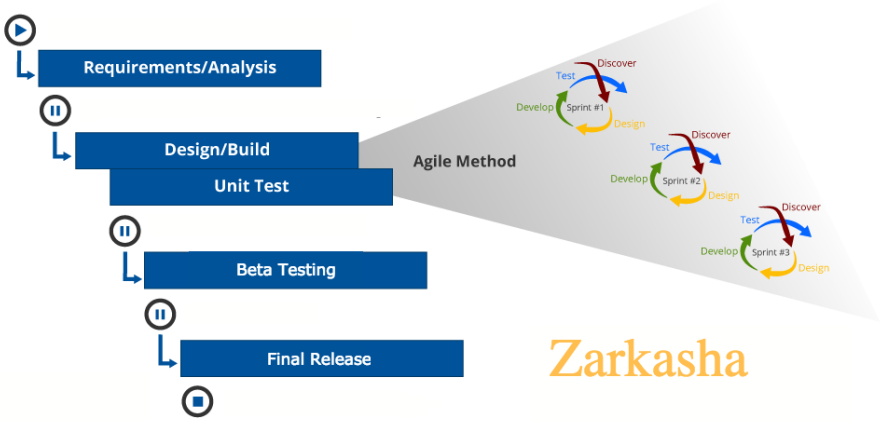
- **Economic feasibility:** Economic feasibility is generally the foremost consideration for most system development. Economic justification includes a board range of concerns that include cost benefit analysis. Cost benefit analysis delineated cost for project development and weight them against tangible and benefit of a system. There are sufficient benefits in creating the system to make the costs acceptable. The present costs of not creating the system are so great that the project must be undertaken.

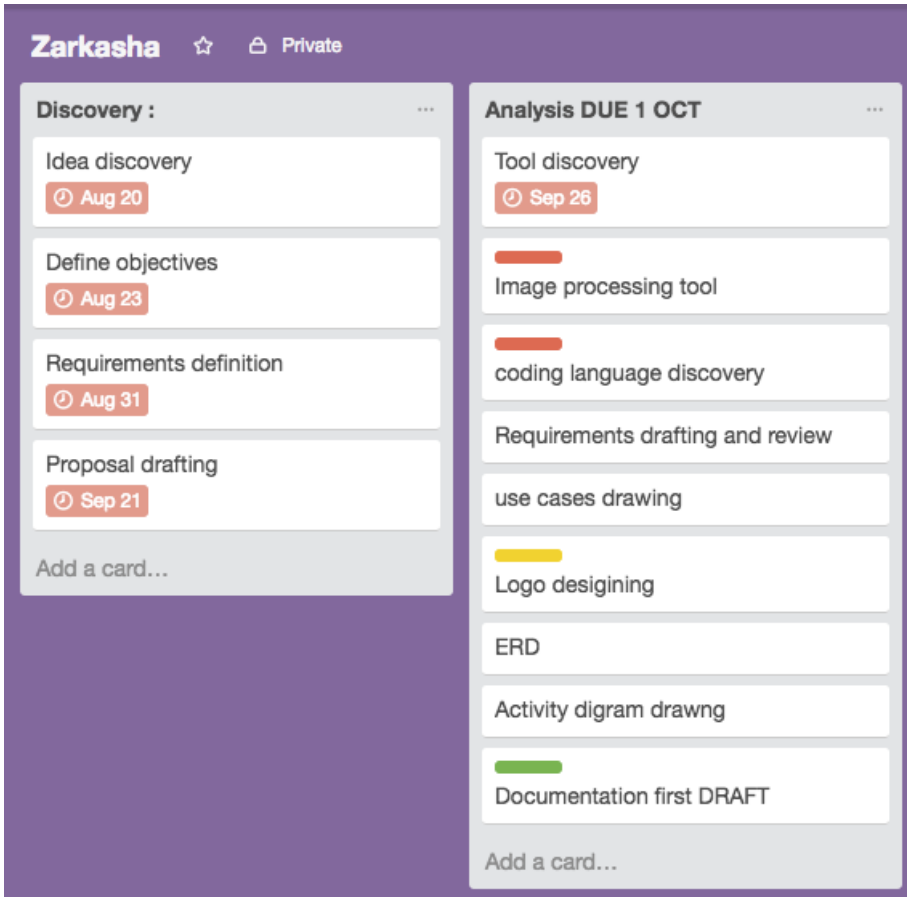
- **Schedule feasibility:** The time schedule required for the development of this project is very important. So the project schedule should be clearly defined and strictly to besides, this project is assigned to the student as an academic exercise to complete within a time frame. Considering this it is assigned to student as an academic exercise to complete with in a fixed period of time.

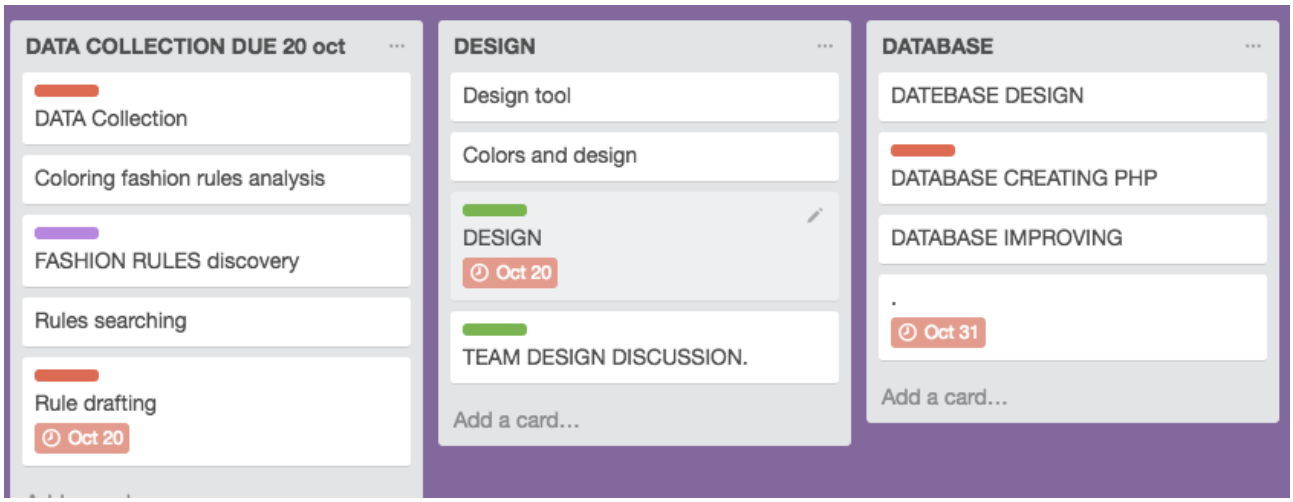
- **Motivational feasibility:** An evaluation of probability that the company I sufficiently motivated to support the development and implementation of the application with necessary user participation, resource, and training etc. the participation and support by the user organization during system study was found to be encouraging thus elimination any possible resistance in this regard. So from behavioral aspect the new system is supposed to have efficient support from the company.

2.5 Methodology

In our project development process we used an “Agile-Waterfall hybrid approach”
In order to keep the dependency tracking and clarity of Waterfall in the beginning of the project, and then get the strengths of the Agile methodology, providing the flexibility and transparency necessary to the continues and fast changing of the requirements.






DATA COLLECTION DUE 20 oct
DATA Collection
Coloring fashion rules analysis
FASHION RULES discovery
Rules searching
Rule drafting
Oct 20
DESIGN
Design tool
Colors and design
DESIGN
Oct 20
TEAM DESIGN DISCUSSION.
Add a card...
DATABASE
DATEBASE DESIGN
DATABASE CREATING PHP
DATABASE IMPROVING
.
Oct 31
Add a card...


CODING
SPRINT #1 HTML WEB DESIGN .
Oct 27
SPRINT #2 SUGESSTION ENGIN
Nov 30
SPRINT #3 LOGIN MODULE
Nov 15
SPRINT #4 WEATHER MODULE
Nov 5
SPRINT #5 HOME PAGE
Nov 2
SPRINT #6 CONTROL PANEL
Dec 1
SPRINT #7 INTEGRATION
Add a card...
SPRINT 1#HTML
Home page
LOgin
weather
User Sign Up
Store Sign Up
User Form
Store Form
Admin Form
User Profile
Other User Profile
Add a card...

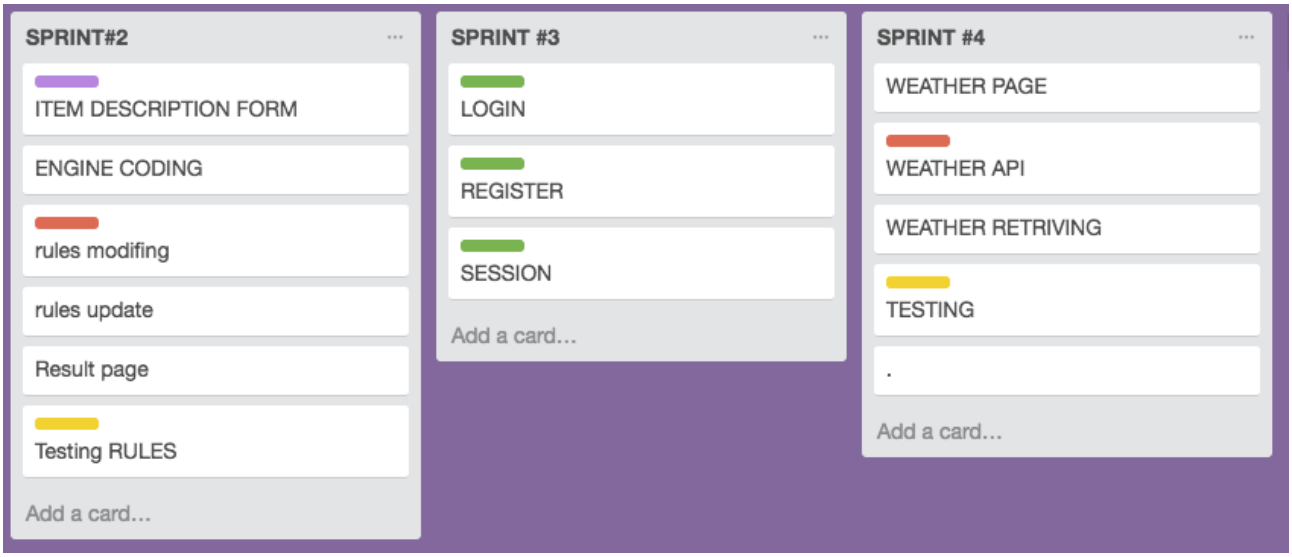


Figure 2.1: Methodology

Chapter Three

Requirement

3.1 Requirements Discovery

The process and techniques used by systems analysts to identify or extract system problems and solution requirements from the user community.

These techniques are:

1. Using document analysis: That comes by trying to elicit information from relevant documentations and viewing existing systems such as https://themeforest.net/ , http://www.xojane.com/ , http://www.wikihow.com/ and http://www.labonubi.com/ to study and understand some details, such as matching rules.

2. Using interviews: after interviews were conducted with many specialists and experts who has along and valuable experience in the market and we geared our questions about some ambiguity problems domain and polices to build up an understanding of their requirements.

3. Using prototypes: By building a small scale, representative mock-up implementation of the users main requirements which helps us to clarify, complete the requirements, find new functionalities, discuss usability and establish the priorities.

4. Using Brainstorming: We try to analyze the system deeply and from all the sides, combine this technique with the above ones and trying to produce numerous and creative requirements which achieve the user's needs so it keep them satisfied.

3.2 Requirements Classification

Here in this section, we are going to mention the requirement classification by each module in the system, and its related actors.

Also, the requirements are divided into functional requirement, and non-functional requirement.
But first, we are going to mention the actors before we get into it:

1. **User:** Regular user that registers on the application using an email, log in on the application by their email and password, can find piece that matching with piece what he/she want by fill form about description own piece of clothes.

2. **Store:** Regular users that register on the application using an email, log in on the application by their email and password, their role is to add items by fill form with description about this item and upload images.

3. **Admin:** the admin that is responsible for the system functionality, who has the privileges, responsible for keeping the application running and functional.

4. **Application:** Application here plays the role of the individual in make decision.

3.3 Functional Requirements

Table 3.1: Shows Functional Requirement

Functional Requirement
Create Account
Login to the application
Fill clothe item description form
Submit the form
Get suggestion
Choose suggestion
Save the chosen suggestion
Do like to the chosen suggestion (it will be post on timeline)
Get weather information
Like others posts
Follow others
Find friends

3.5 Non-Functional Requirement

Table 3.2: Shows Non-Functional Requirement

Non-Functional Requirement
Response times
Processing times
hours of operation
Architecture standards
Coding standard
Restore time
Backup time

3.5 Data Collection

User account data

- Name.
- Email.
- Password.
- Birth Date.
- Skin tone.
- Sex.
- Weight.
- Length.
- Hair color.
- Favorite color.
- Favorite brand .
- Favorite style .
- Favorite actor style .
- Brand

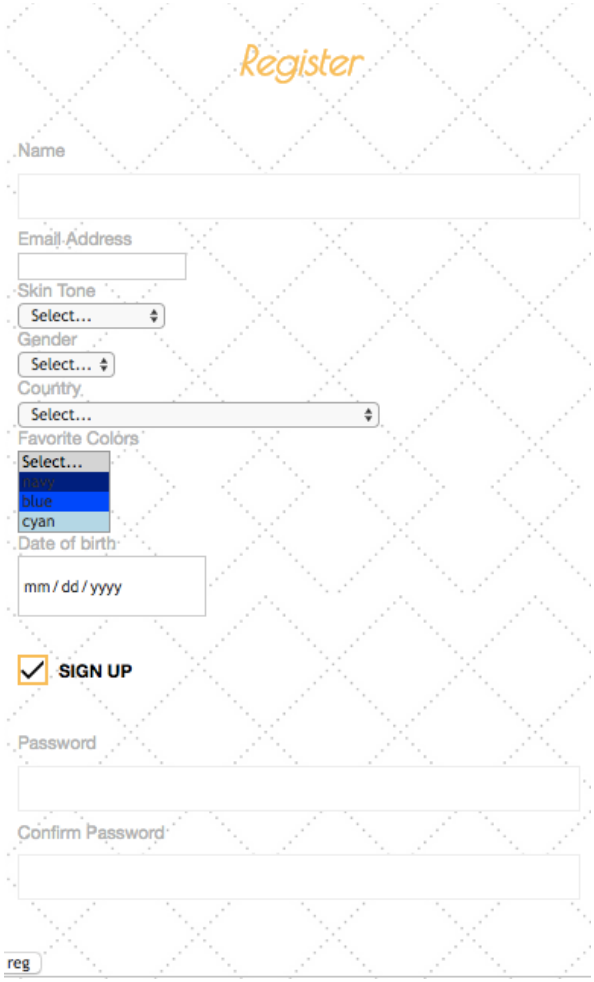


Figure 3.1: User account data

Clothe item description

- Main Category (Women , Men , Accessories ….) .
- Sub Category (Women : Jacket , Tops , Bottoms , …) .
- Size .
- Color .
- Decoration .
- Sleeve Length .
- Clothing Length .
- Pattern type .
- Style (Casual , Formal , Active , Fashion , Novelty) .
- Material .

Figure 3.2: Clothe item description

3.6 Recommendation System

Input date: **Clothe description form.**

System Rules

Colors rules

Basic base will be the color wheel to write the complimentary colours rules.
Every colour has a complimentary colour. It is on the opposite side of the colour wheel. True complimentary colours are the same distance from the centre of the wheel.
Analogous colors: They are friendly colors found directly to the left and to the right of the original color.

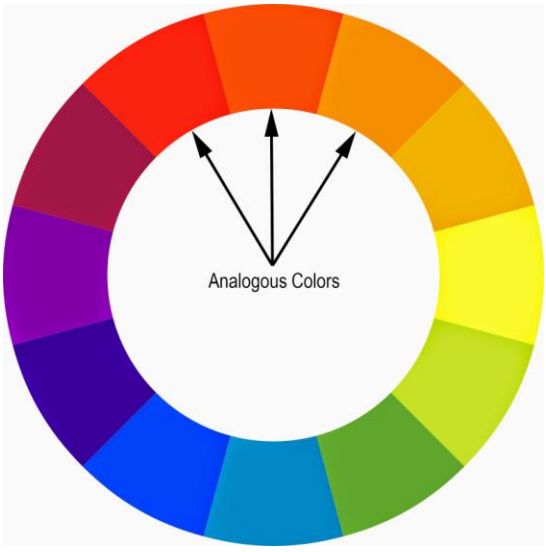


Figure 3.3: Color Rules

Mixing and matching patterns rules

- Choose one print to dominate and one as an accent.
- Mix prints of different scales.
- Keep your fabrics in the same color family.
- Pick two different prints that share a single color.
- Pair mixed prints with neutrals for an easy vibe.
- If you want to use the same pattern, invert the colors.
- Use the exact same pattern in a larger or smaller scale.
- Treat stripes as a neutral.
- Break up patterns with a belt for a cohesive look
- Textured fabrics like perforated leather totally count as a print.
- Choose a top or dress that is pre-mixed and pair with a third print.
- Pair two types of the same print.
- Pair neutral prints with colorful prints.
- Mix prints between tailored and flowy pieces or different textures.

Figure 3.4: Pattern Rules

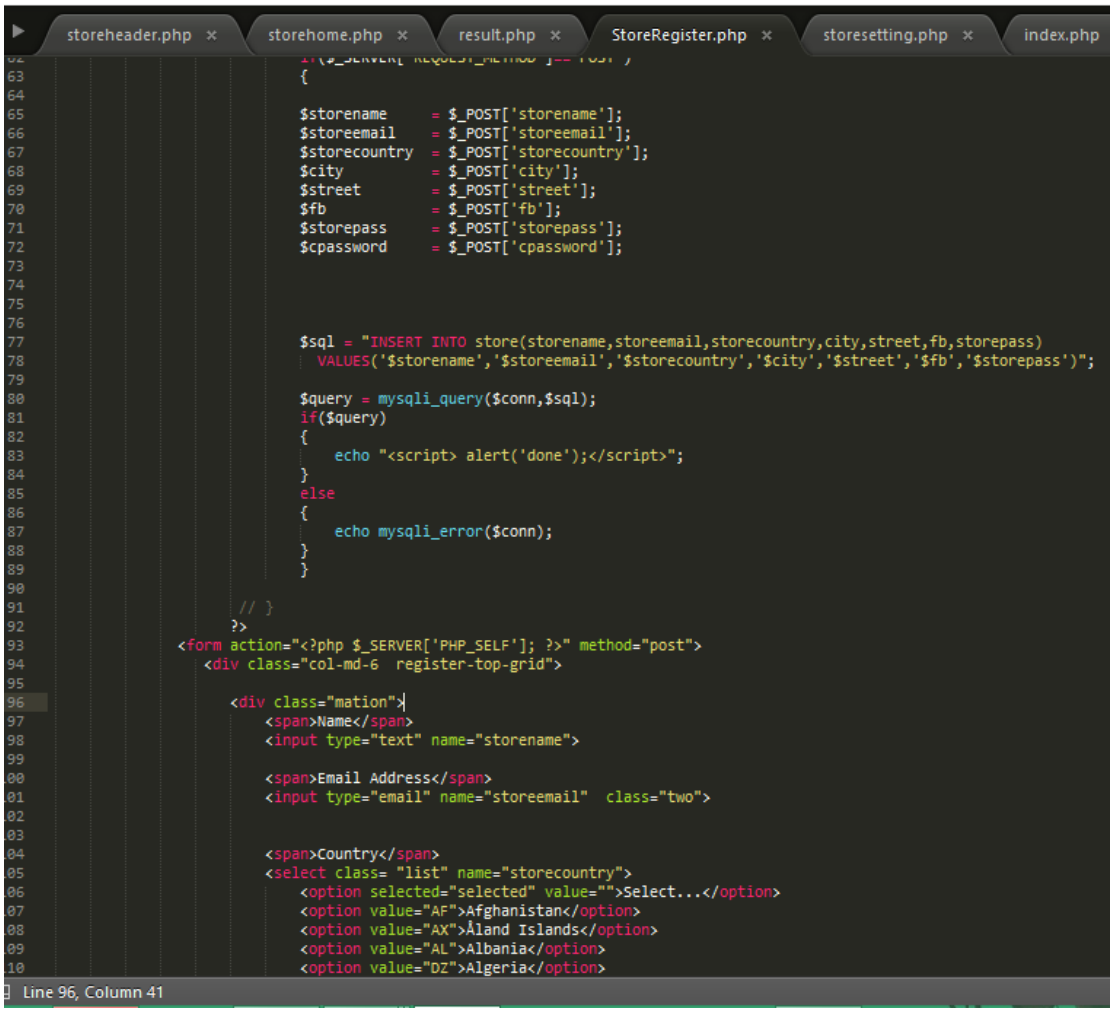
Chapter Four

System Implementation

4.1 Programing Language

First, we try to use “Python” language but it doesn’t success, then “android” chosen, then “Phone Gap”, then “Cordova” until we see that “PHP” language was more apriority than other.

In Our Project we use PHP language programing for back-end developing, and for front-end developing we used “Bootstrap”.



4.2 Tools

*Git hub

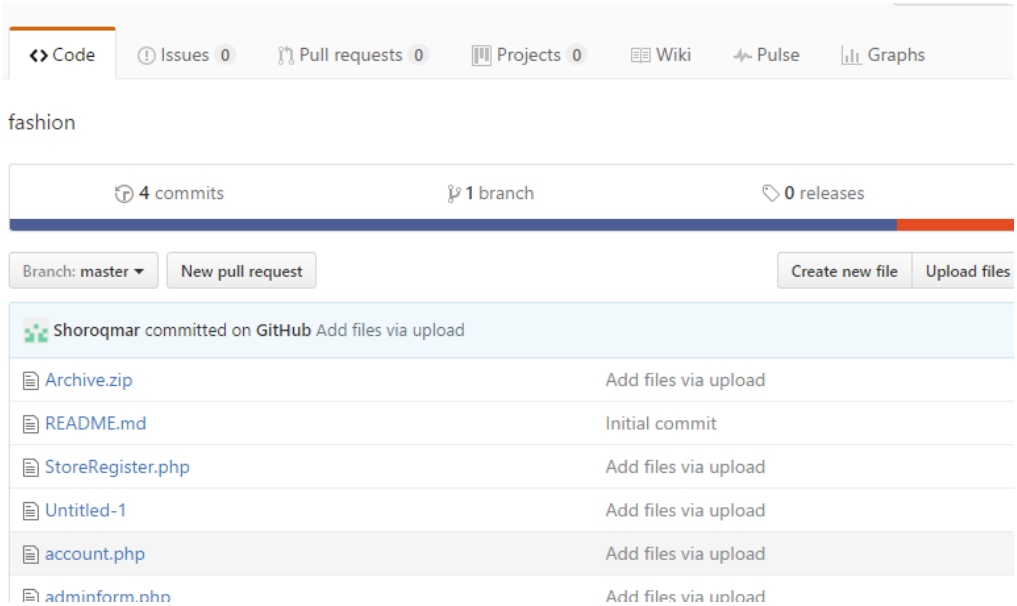


Figure 4.1: GitHub

*Trello

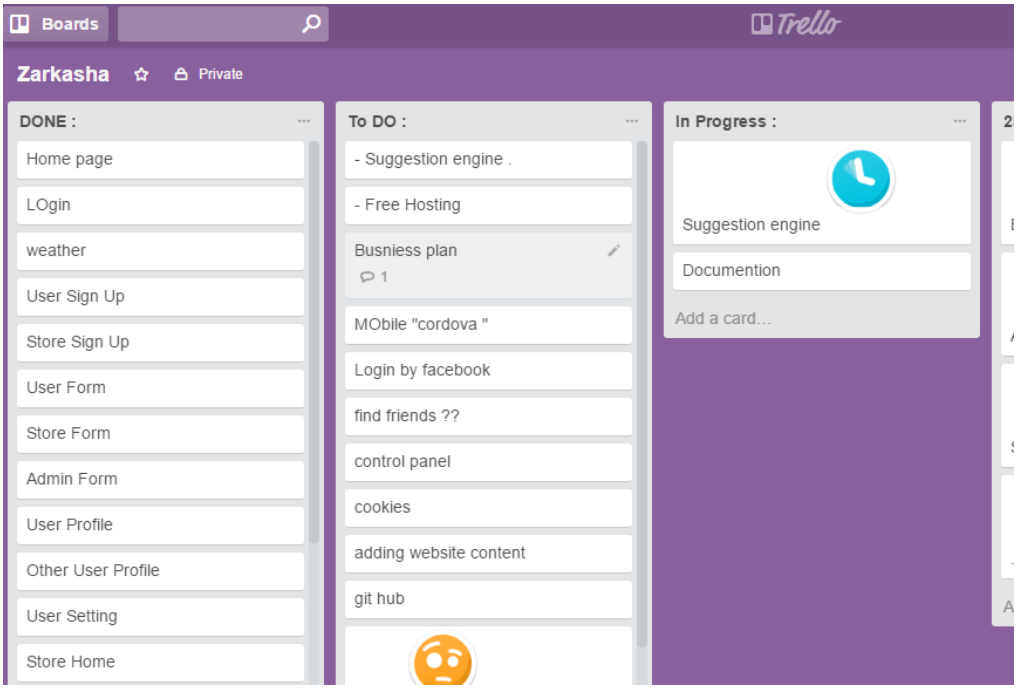


Figure 4.2: Trello

*Slack

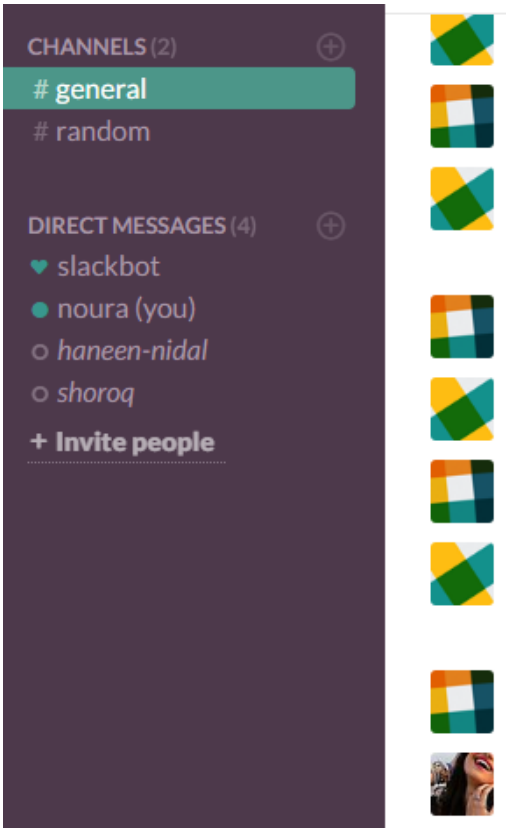


Figure 4.3: Slack

* Source Tree

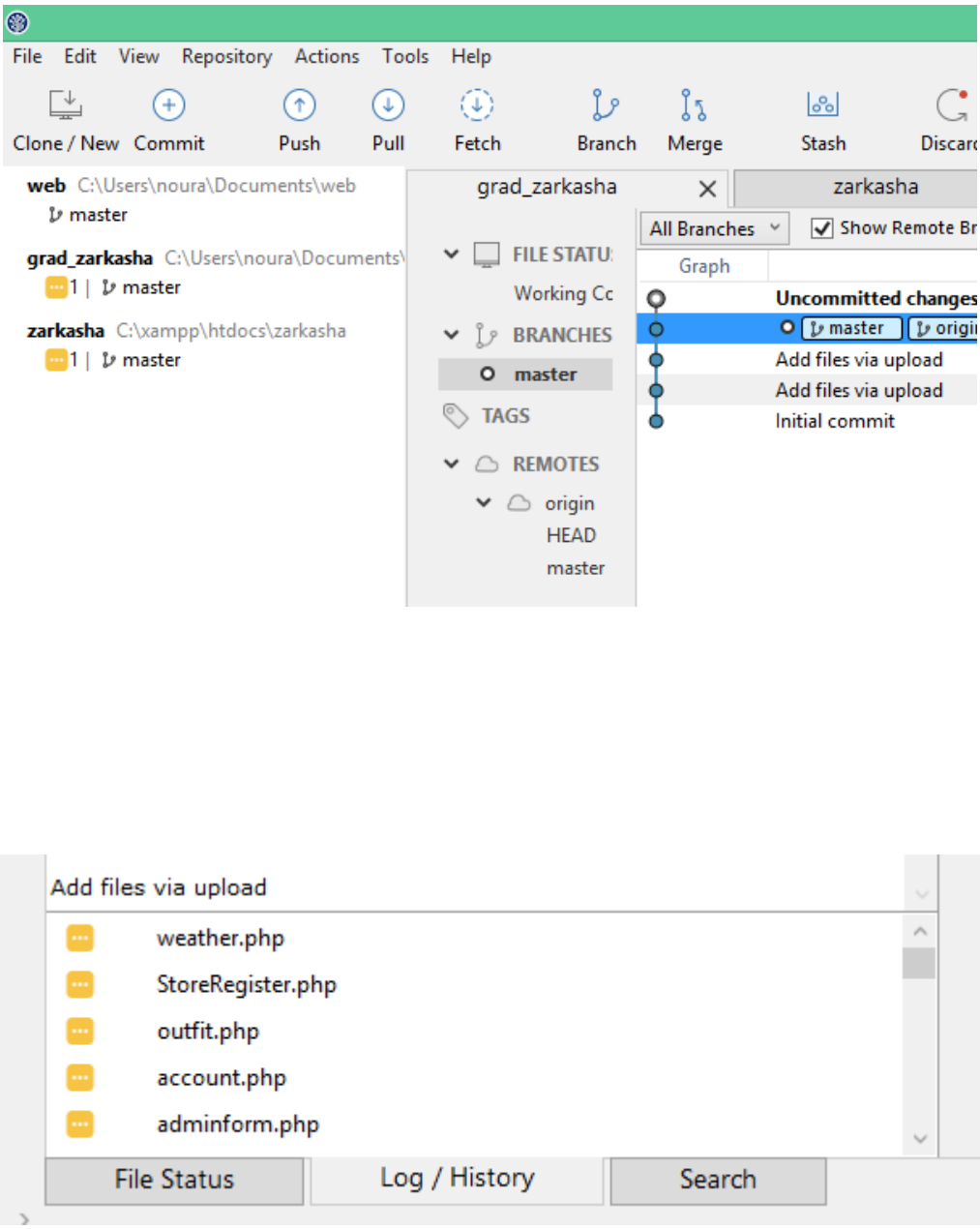


Figure 4.4: Source Tree

***Phone Gap**

Figure 4.5: Phone gap

***Cordova**

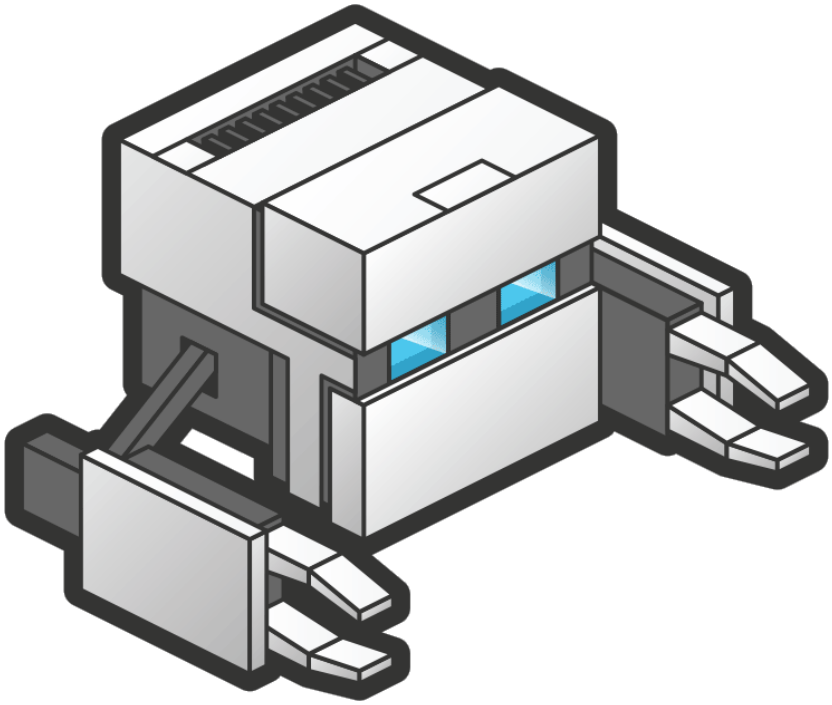


Figure 4.6: Cordova

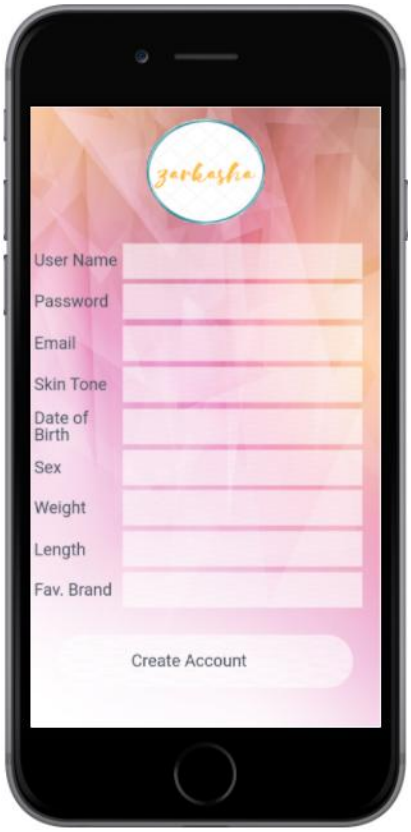
*** Ionic**

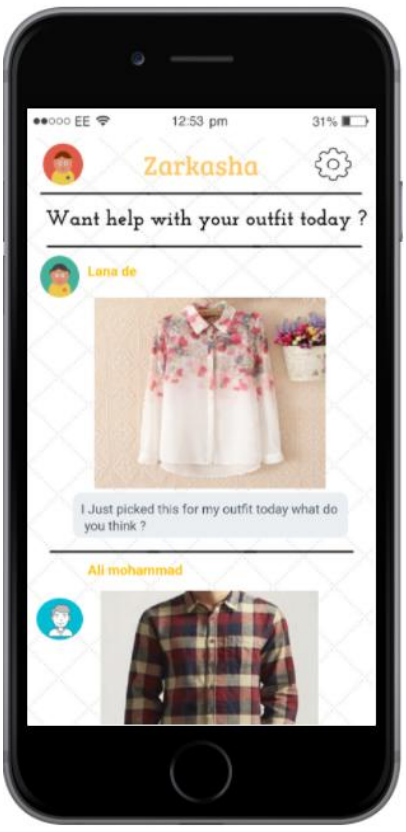
Figure 4.6: Ionic

4.3 Design


zarkasha
Sign up
Login

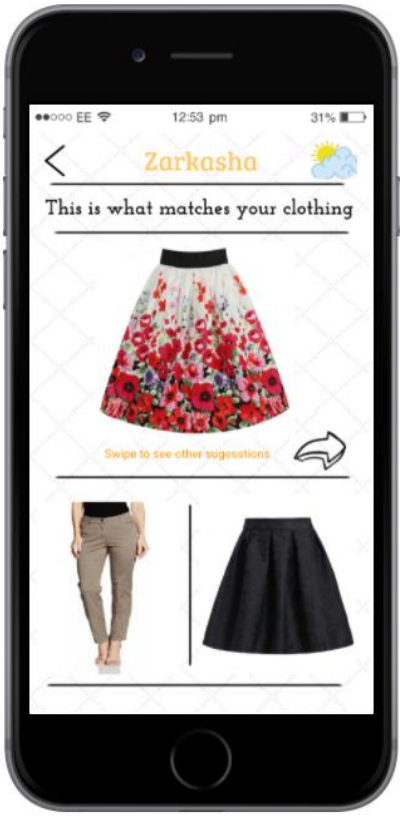

zarkasha
User Name
Password
Sign in
Don't have an account ?
Create Account

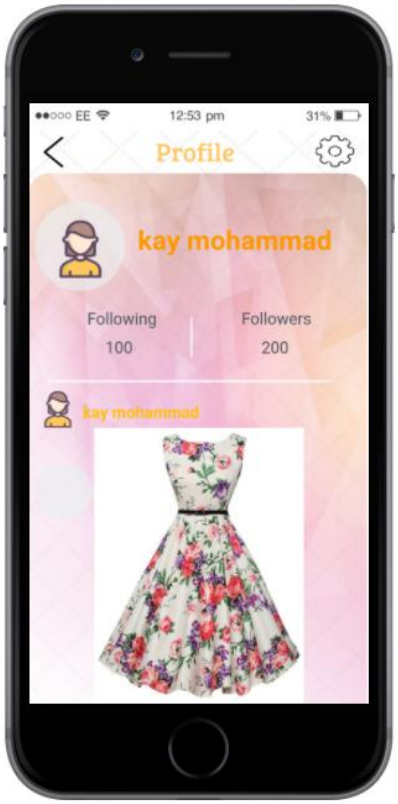

zarkasha
User Name
Password
Email
Skin Tone
Date of Birth
Sex
Weight
Length
Fav. Brand
Create Account


12:53 pm
31%
Zarkasha
Want help with your outfit today ?
Lana de
I Just picked this for my outfit today what do you think ?
Ali mohammad


12:53 pm
31%
Zarkasha
What do you want to wear ?
Shirt
Skirt
Trouser
T-shirt
Jacket
Jeans


12:53 pm
31%
Zarkasha
Describe the Clothing Item you have
Background Color
Main Color
Sub Color
Pattern type
Material
Length
GO FOR IT


12:53 pm
31%
Zarkasha
This is what matches your clothing
Swipe to see other sugesstions


12:53 pm
31%
Profile
kay mohammad
Following
100
Followers
200
kay mohammad

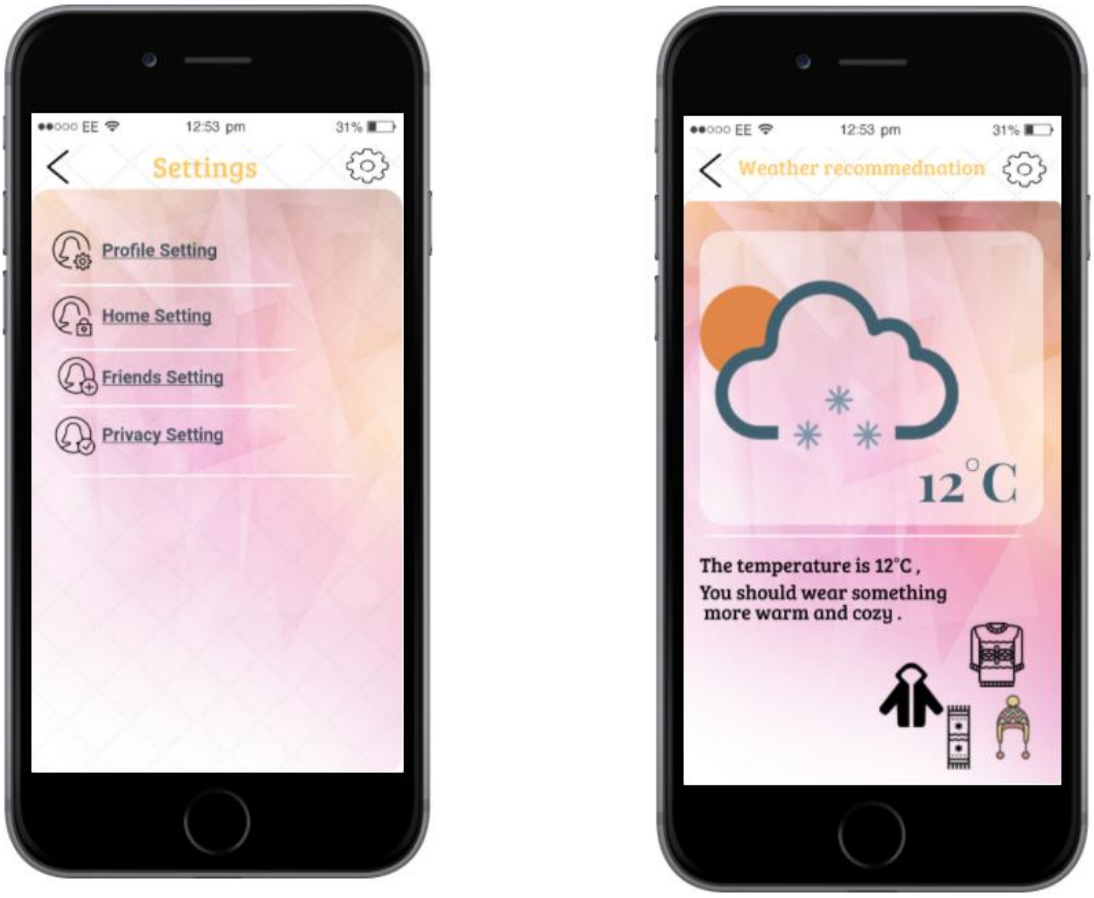


Figure 4.1: Initial Design

4.4 Security

Security is the degree of resistance to, or protection from, harm. It applies to any vulnerable and valuable asset, such as a person, dwelling, community, item, nation, or organization.

As noted by the Institute for Security and Open Methodologies (ISECOM) in the OSSTMM 3, security provides "a form of protection where a separation is created between the assets and the threat." These separations are generically called "controls," and sometimes include changes to the asset or the threat

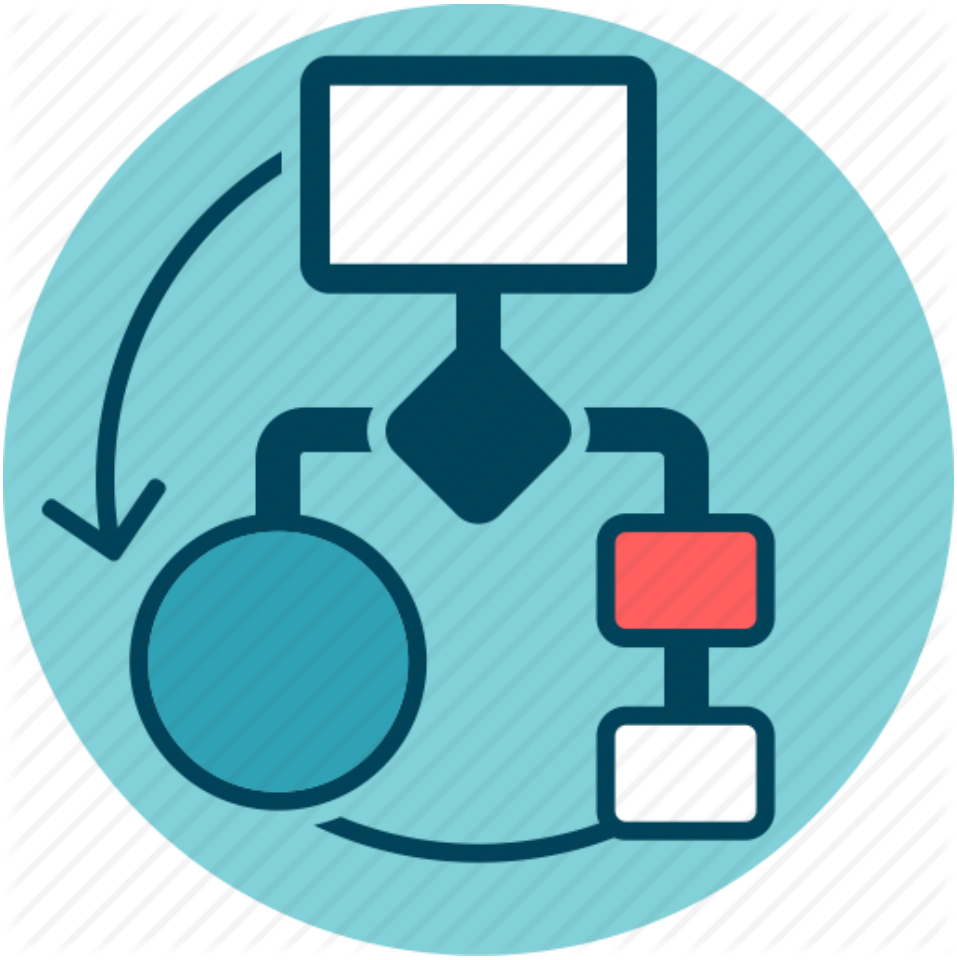
Security is said to have two dialogues. Negative dialogue is about danger, risk, threat etc. Positive dialogue is about opportunities, interests, profits etc. Negative dialogue needs military equipment, armies, or police. Positive dialogue needs social capital, education, or social interaction.

EXAMPLE

We do Password encryption to make application more safety.

Chapter Five

Modeling



5.1 Use Case

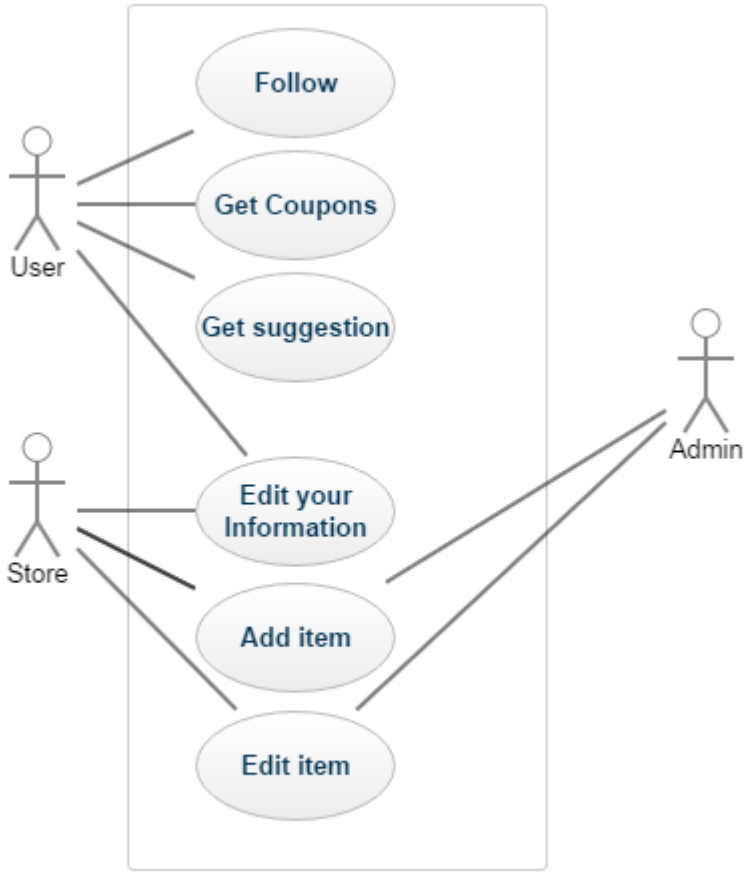


Figure 5.1: Use Case

5.2 Class diagram

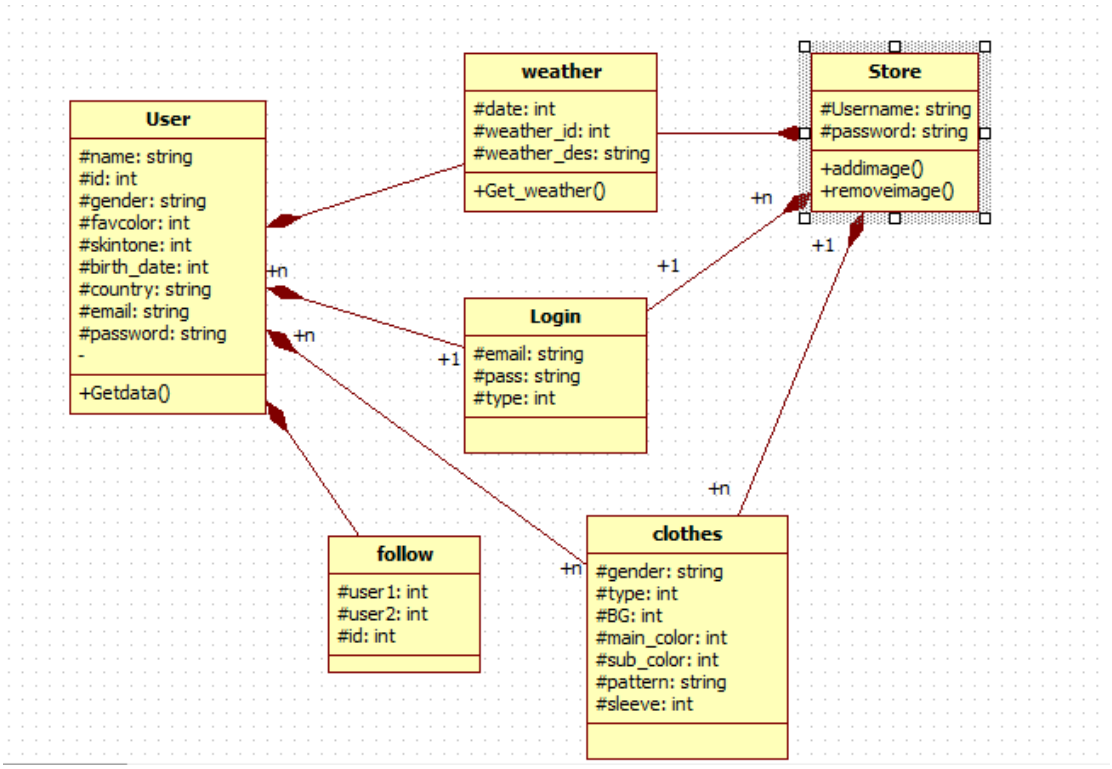


Figure 5.2: Class Diagram

5.3 Activity Diagram

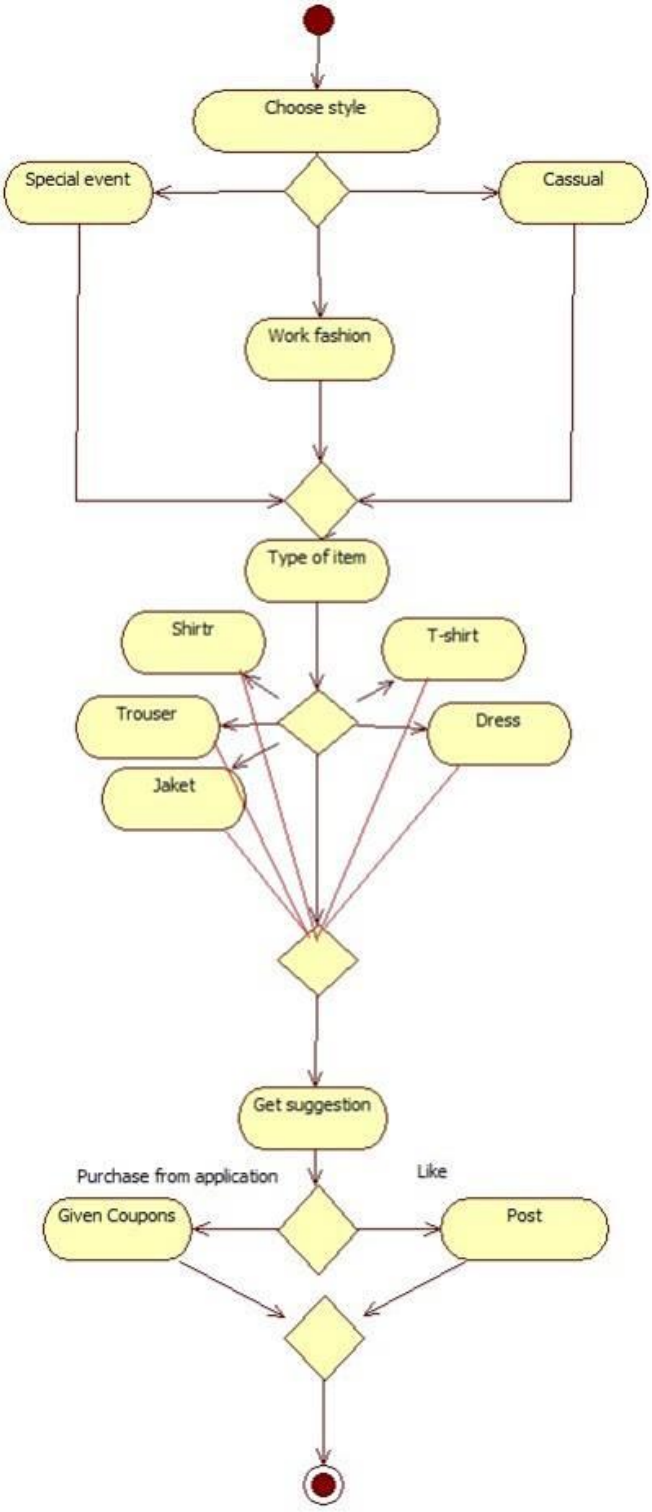


Figure 5.3: Activity Diagram

5.4 Sequence diagram

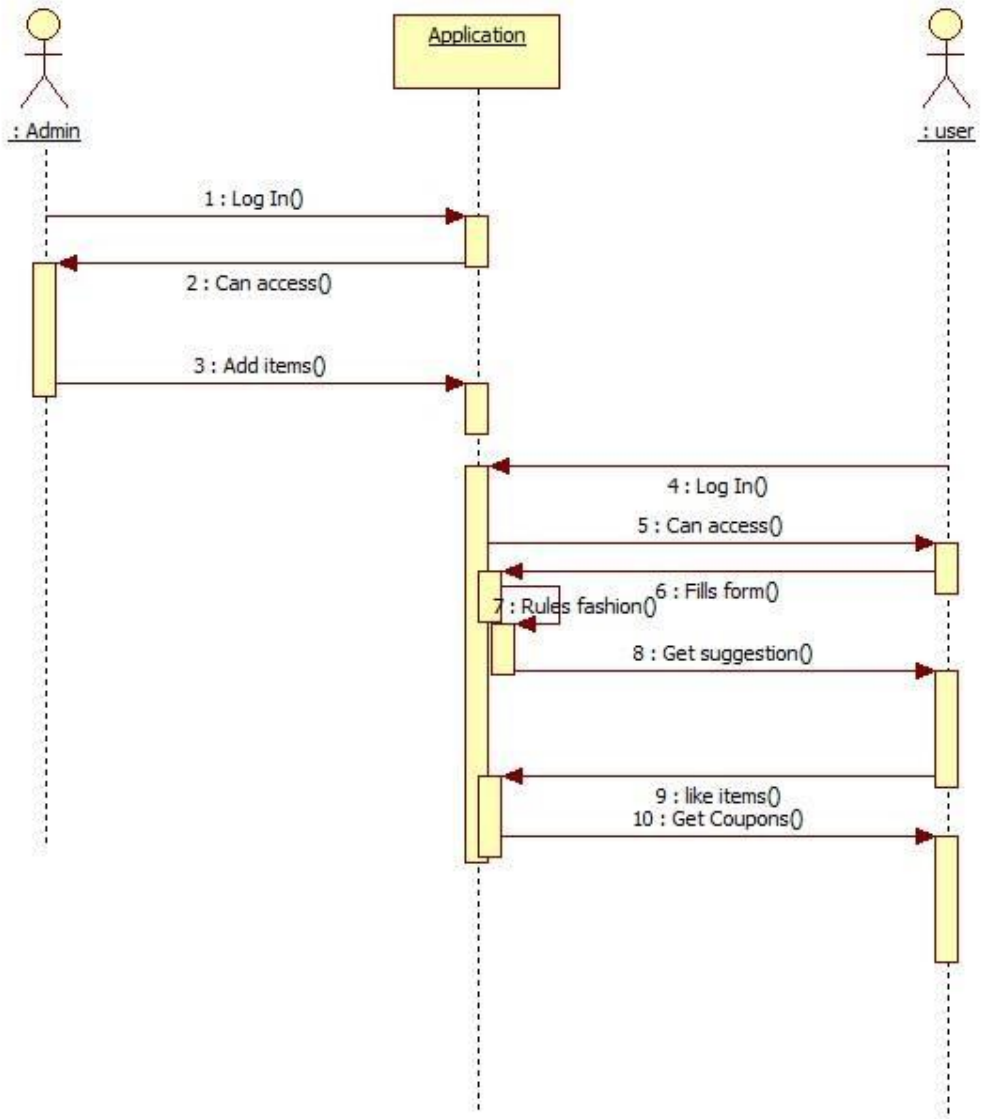


Figure 5.4: sequence diagram

5.5 Database

5.5.1 ERD

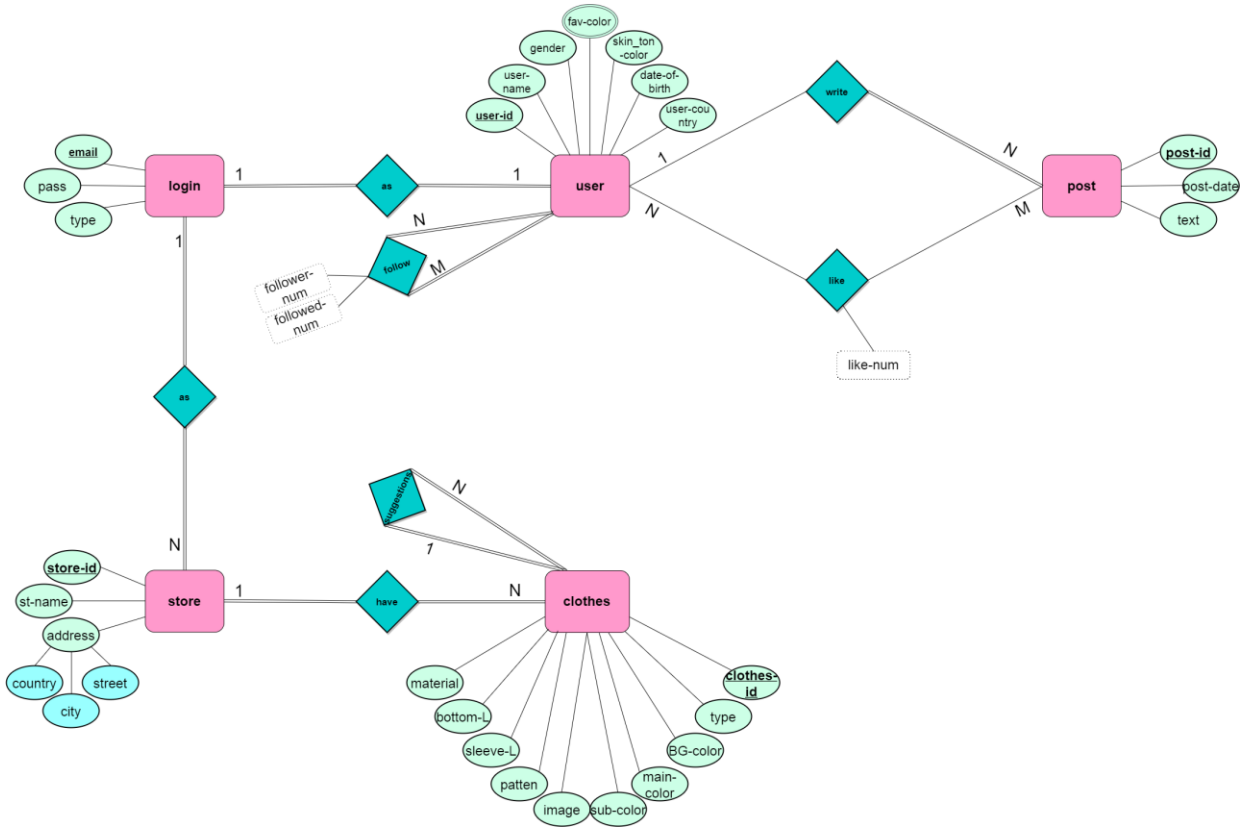


Figure 5.5: ERD

5.5.1 Relational Model

Result of mapping the COMPANY ER schema into a relational schema.

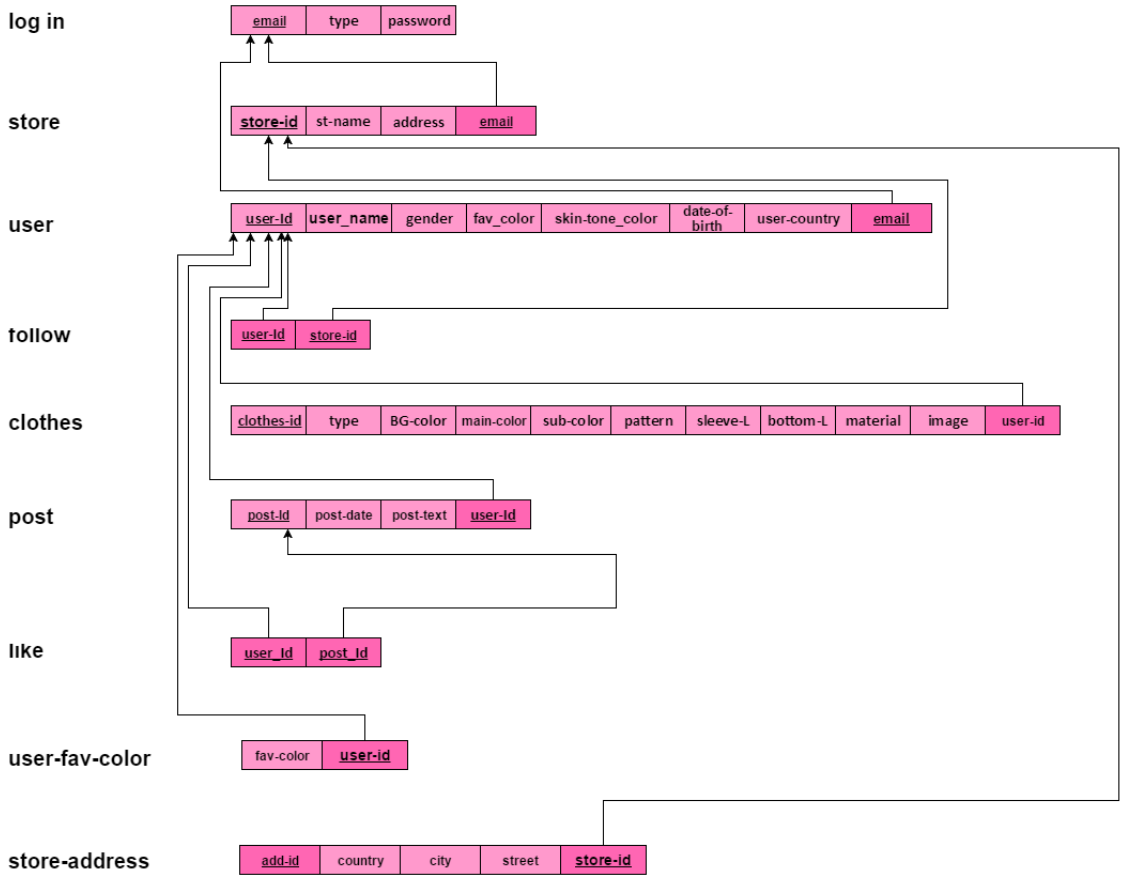
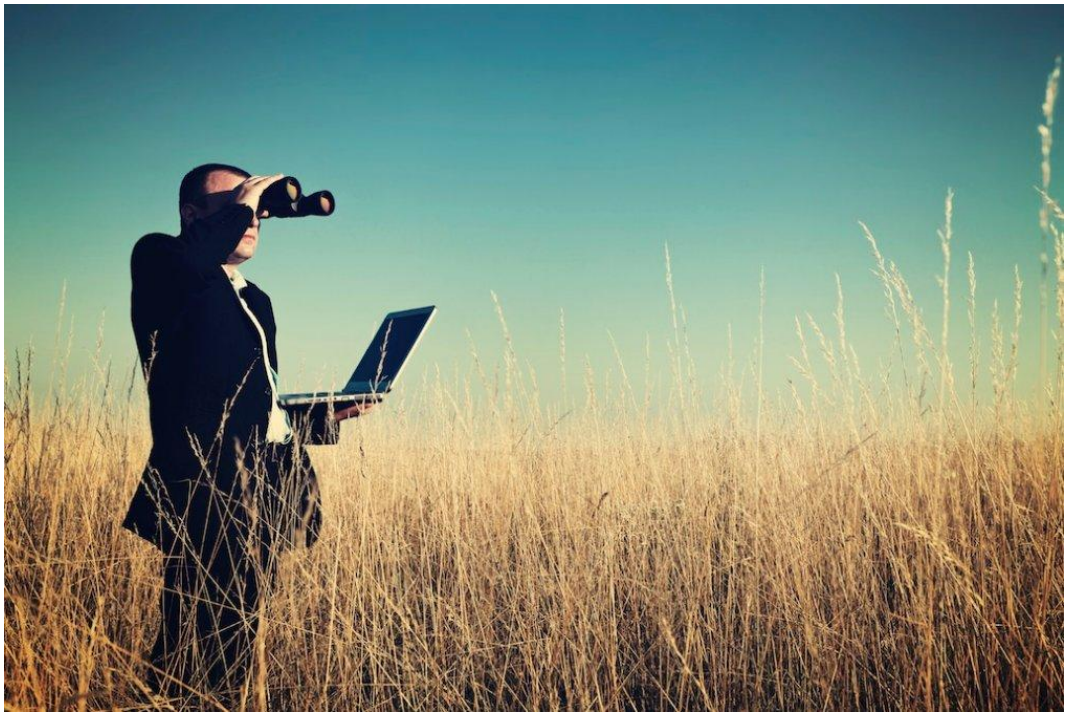


Figure 5.6: Sequence diagram

Chapter Six

Future Work



6.2 Future Work

- Convert project to MOBILE APPLICATION

-AI recommendation system

- Shopping online

-make social communication more effective

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