

The "HardWhere.ps" platform is a specialized online marketplace for recycling and selling used electronic parts, designed specifically for computer engineering students and tech enthusiasts. The platform aims to promote the circular economy concept and reduce electronic waste by providing a sustainable and reliable way to trade used tech components, extending their lifecycle and allowing users to make the most of devices they no longer need.

## **Structure and Technologies Used**

1. Frontend: Built with Nuxt.js, enabling responsive, high-performance web applications with features like server-side rendering (SSR) and automatic code splitting, which improves page load times and user experience.
2. Mobile Application: Uses Ionic with Vue.js to create cross-platform applications, providing a unified and user-friendly design across different devices.
3. Database: Powered by PostgreSQL via the Supabase platform, which supports real-time updates, enabling instant data changes such as inventory, notifications, and messaging between users.
4. Backend: Developed with DotNet using a clean architecture approach, ensuring efficiency and scalability in handling complex operations such as payment processing and order management.

## **Key Features**

- Security and Authentication: The platform offers an advanced authentication system through password encryption and JWT, providing additional security during login sessions. Role-based authorization policies are implemented to control users' access levels to various resources.
- User-Friendly Interface: The UI design includes a simplified layout with product cards that are easy to navigate, along with advanced filtering functions to search for products by category, price, or rating.
- Account Management: Users can create personal accounts, manage their information, and update shipping and billing details seamlessly. They can also change passwords and save payment information for future transactions.

- Real-Time Messaging System: The platform includes a live chat feature for direct communication with the support team, built with the SignalR library, making it easy to get immediate assistance.

- Shopping and Payment: The application provides a comprehensive shopping cart, shared between the mobile and web versions, allowing users to add and manage products and proceed to a secure checkout using Stripe API for financial transactions.

### **Admin Dashboard**

The platform's admin dashboard provides a comprehensive interface for managing products, orders, and user interactions. Key features include:

- Order Management: Allows tracking of order statuses such as "Processing," "Shipped," and "Completed," with the option to notify users about updates in real-time.

- Instant Notifications: Users receive real-time notifications about their order status updates, like confirmation or shipping. Email notifications are also sent to ensure users stay informed.

- Support System: Enables administrators to respond to user inquiries directly through live chat, enhancing customer service and providing prompt assistance.

With these features, the "HardWhere.ps" platform aims to provide a reliable and sustainable environment for engineering students and tech users, promoting reuse and reducing the environmental impact of electronic devices.