**Sello Marketplace**

**Group Members**

* Shravani Male
* Sai Ganesh
* Guru Ramkoushik

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**Submitted to**

Zaman ANK

**Sello Marketplace**

**Introduction**

In Web Design Capstone, we plan to make a web application, primarily a Marketplace for selling and buying goods. The website's foremost goal is to get all the retail/people-sellers to register and upload sellable items with proper images, descriptions, and details about the listed item. Encourages more sellers to advertise their products/ List with the best price on the website. From the user perspective, anyone/buyers can buy the products/items listed on the page. Whoever needs to register on the website to access/buy any item on the website. Users/customers can add the items into the cart and checkout, where sellers can also update their product and offers list at any time after the listing has been published. We are planning to secure the website by ensuring user authentication. Also, create a payment gateway.

Following is the basic functioning of the website. There are two crucial users for our website. First, retail sellers and then the buyers. When the user visits our website, he might has to register to our website by providing all the basic details required to create an account alongside mentioning if he is registering as a seller. Once, the user is registered, he will be taken to the login page and based on the login information provided, we will verify if he is a seller and moves him to seller page. This page has all the information about our site, how we operate and then ask for the seller about the items that he has to sell. We will collect all the information of the items like the item type, item name, item description, quantity, price and the images of the item. Then, we will add the item to our database.

Now comes the actual users of the website, the buyers. Even the buyers has to register to our website and login. Once, the logs in, he’ll be taken to the home page. In the home page, we give the user the required information of our website like what we are dealing here and also the best deals that we have and few reviews from our customers to boost them up. Then, user can choose the categories that he wants to buy. We are planning to include as many categories as possible like fashion, sports, electronics, books, bikes, kids. He can navigate to any of the category he wants and check all the items available in that category. If the user clicks on any of the item, he will be taken to the details page, where we will display all the details of that specific item. Also, user will be provided with two options, Buy Now or Add to Bag. If he clicks on Buy Now, he will be taken to the payment page. We are planning to implement the payment using PayPal Gateway. If the user clicks on Add to Bag button, the item will be added to his bag and he’ll be navigated to the Bag displaying all the items available in his bag. He can check out at any later time possible.

If time permits, we will try to add the coupons to our website. We will try get the details like if there are any available deals on that item from any other seller and provide the user with the options available to choose himself. Also, providing special discounts to the best customers who are being loyal to us and helping to improve our business.

Why do you like to do this project/benefits of doing this project?

Our website acts as a medium between users who want to sell their items and the users who want to buy them. It helps individuals searching for a platform to do their small-scale trading with the best engaging user experience. Also, our main goal is to take the sellers to the buyers without any intermediary people. This helps in reducing the maintenance costs and many other charges because of which the ultimate beneficiary is the user who can buy the items with reduced prices. We can proudly say that our website will be helpful to both the seller and the buyer as our primary focus is on small-scale trading people who are not much aware about any of the market strategies and the buyers who are able to purchase the items directly with the seller at reduced costs.

**Design and Data Flow**

***Windows***:

Our website has the following windows:

Home: This page has all the details like the owners and a brief description of our website.

User Registration and Login: Forms for User (Buyer/Seller) registration and login

Add Items: Only for Buyers to add their items to the website.

Categories: It has all the items available on the website based on their type.

***Menu:***

The menu of the website might contain the following buttons

Home, Categories, Best Sellers, Today’s Deals, Checkout

***Database/ER Diagram:***

Below are the tables that we are planning to include in our database:

User Table – To store all the details of the user like his name, password, email, Date of Birth, user type(if he is identified as a seller).

User Type Table – This table stores the type of the users we accept, i.e., Buyer or Seller.

Categories Table – This table stores the details of all the categories of items that we sell on our website.

Items Table - This table stores all the items information.

Diagram

Description automatically generated

**Technology Description**

Why do you like to use MongoDB, and React Express, etc.?

UI - React JS( Hooks or Redux for React State Management )

Database - MongoDB

API - Express

Authentication - JWT

**Market Survey**

The tech industry offers probably the highest-paying opportunities in the country. One of the most trending job opportunities available in the market is Full Stack developer. There are various programming languages, and there are related frameworks and libraries related to them.

About 70% of developers love JavaScript because of its versatility.

With JavaScript, we can develop client-side as well as a server-side desktop and mobile applications.

Many JavaScript Client-Side frameworks to choose from, but among the most favoured are Angular, Vue.js, and React.js.

Angular was released by Google, which is based on TypeScript. This framework provides functionality in TypeScript libraries, which you can easily import into your applications. The components of Angular use services to give specific functionality to their users. Service providers inject into components as dependencies to create your code in a modular, reusable, and efficient fashion.

React gives the project agility, uniformity, and scalability. You can create user interfaces as well. Because it is declarative, effective, and adaptable, React is the best JavaScript library option. It lets you build components with complex UIs.

Vue is the most progressive platform for the rapid construction of user interfaces. Compared to other unified frameworks, Vue is specifically designed from scratch to be broadly adaptable.

Comparing the three frameworks based on popularity, React is the most popular one. Based on performance, Vue.js is the more efficient one.

Based on Scalability, Angular and React are better ones. Compared to Angular and Vue, the React.js learning curve has a medium-to-steep learning curve. ES6 syntax is perfectly blended with react, which makes it easier to write code.

We want to use React as it is suitable to make large scale web applications. Also, It is best suited with the combination of MERN stack.

For developers and programmers to collaboratively work on technology, GitHub is used popularly. GitHub's primary advantage is its version control system, which allows for smooth collaboration without sacrificing the original project's integrity. Examples of open-source applications are the projects on GitHub.

In real-time, each project is done by a group of people, so maintaining the team's code is very important. One of the best repositories to keep the code is the GIT repository. In GIT, multiple people can work on the code simultaneously and then push the code as a branch into the repository. It maintains the track of who merged the code, who committed it and also the version history. If the code goes wrong at some point, we can easily track which user commit produced the error and then revert to the previous version.

**Conclusion**

Since, we are considering our project as a start-up idea, our initial idea is not the end product. We might work on improving our website considering the inputs from our professor(the client) and promise to deliver the most user satisfying and impressive website. We are planning to complete our project within the given timelines following all the scrum meetings and sprint deliverables regularly.

**GitHub Link**

Below is the link to our GitHub Repository:

[GitHub Repository - Capstone Project](https://github.com/saiganesh13147/CapstoneProject)