**Sello Marketplace**

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## **Introduction**

In Web Design Capstone, we have developed a web application which is 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 have secured the website by ensuring user authentication. Also, integrated the Paypal 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. Any user can access the website to view the products available on the website. However, if he/she wants to checkout any item, they will be redirected to the sign in page. If they are not yet registered to our website, they have to register first 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 sign in page and based on the login information provided, we will verify if he is a seller and moves him to seller page. In the seller page, the seller, basically referred as admin has all the access to add the products that he want to sell on our website. He also has the access to manage the users registered on the website. When the admin adds or updates any item on the admin page, this data will be updated in the inventory. We will collect all the information of the items like the 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, they 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 items that he wants to buy. 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 and whether that item is available to checkout or not. Then user can add that item to the cart. In that way he can add all the items that he wants to buy to the cart. Also, while checking out, if he don’t want to buy any item, we have provided him the option to delete that item from the cart.

Once, the user clicks on the proceed to checkout button, he will be taken to the checkout page. In the checkout page, user has to add the shipping address, then select the payment method. Before the payment, user will see the overview of the order like the shipping address, payment method and the order summary like number of items, price, tax and total amount of the amount. Over there, as we have not done the payment yet and the order is not delivered, staus of the payment will be not paid and the delivery status will also be not delivered. Over here, user have the option to proceed for the payment through paypal. We have implemented PayPal Gateway for payment services. User has to login to his paypal account and process the payment. Once the payment is processed, the status on the order summary will change to paid.

On the admin side, admin will have the access to deliver the product. When he clicks on the deliver option, the status on the order summary for that user will change to delivered.

Overall, to sum up the website, this is a marketplace where sellers can register themselves as admin and add the products that they want to sell and buyers can register as normal users and buy the products they wish and process the payment using paypal services.

We are planning to implement more features to the website like 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.

Also, we will try to add more categories and seggregate the products accordingly. Also, we will implement the search feature.

## **Benefits of Doing This Project**

The main benefit of this project is to provide a place for the small scale and local sellers a platform to sell their products online and develop their business globally. It is very easy to register as a seller and sell the products on our website. And also for the buyers, the goods will be very less cost as they are directly buying them from the sellers and there are no middle retail sellers as this will reduce the manufacturing cost which proportionally reduces the selling price. Our goal is to make the online market a reliable place for everyone to buy and sell their products.

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.

On the developer perspective, we have developed the project using React and Redux. We have learnt basic react in the course but specifically for this project we learnt React using Redux through some online resources and implemented the whole project using React with Redux. This gave us so much confidence as this project gave us the chance to learn new technologies.

## **Design and Data Flow**

**Design:**

We have user Registration page. Once the user registers, he will be taken to sign in page. After successful sign in, home page will open. In the home page, all the products will be listed over there. When the user clicks on an item, product details page will open. Once the user clicks on add to cart button, cart page will open. Then checkout page for checking out the item. Also, on the user profile page, all the datails about the user and the order details are available.

For the admins, admin managing page will be available. In this page, he/she can add the products and also manage the users.

**Data Flow Diagram:**

UserDB

User details

Users

Reviews

sellers

Registration

Products

Signin

buyers

orders

**database/ER Diagram:**

Database that we are using is mongodb. Below are the collections created:

* Orders

This schema stores the details of all the orders that are placed. It stores the following details like userdata, orderItems, shippingAddress, paymentMethod and all other payment Details.

* Products

This schema stores the details of all the items like the itemName, images, brand, category of the item, item description, its reviews, price and the quantity in the inventory.

* Users

This schema stores the user details like name, email, password, and if the user is admin.

## **Technology Description**

Technologies used to develop the project are

* React-Redux
* React Bootstrap
* MongoDB
* NodeJS-ExpressJS
* JWT
* Paypal Payment

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

## **Accessibility features**

We have implemented the accessibility features like, we have add the alt text for all the images. Also, we have used proper color contrast. Checked the website using Read-Write software.

Web site is fully responsive – Compatible with web, ipad and mobile. SEO minimiser has been used to reduce the load time, with optimised URLs, Images.

**Read-Write Gold software**

**Graphical user interface, website

Description automatically generated**

**AChecker Report:** (<https://achecker.ca/checker/index.php>).

## **Conclusion**

Our application mainly focuses on providing an online platform for both the buyers and sellers. Foremost goal is to provide a place for the small scale and local sellers a platform to sell their products online and develop their business globally.

We are planning to extend our project to add the tracking option for the users to track their items once they are purchased by adding the maps API. Also, we are planning to add the coupons feature to the website that we compare the products among each sellers and suggest the buyer with the available options for that particular product from another buyers.

**Promo Video Link:**

<https://www.youtube.com/watch?v=BJHtN_Cq9R0>

**Live Link/URL(hosted):**

<https://sellomarketplaceapp.herokuapp.com/>

We have tried a lot to finish the hosting but we are facing some issues and couldn’t host it properly. We will try our level best to make our website live very soon.

## **GitHub Link**

Below is the link to our GitHub Repository:

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

**Thank You**