DALHOUSIE UNIVERSITY

CSCI 5308 (Advance Topics in Software Development)

Project Proposal – E-StoreFront

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Overview:

We, as customers, are moving toward more automated lives, preferring to have our daily lives at our fingertips, whether it's travel, food, shopping, or even businesses. Every businessperson and the buyers make up the largest segment of online users. And focusing on these customers can help people manage their hectic schedules. E-Storefront It is a web-based enterprise that sells groceries, (restaurants) food, liquor (liquor shops), stationeries, electronics by the retailers to millions of customers. The E-Storefront is one of the most comprehensive platform solutions for different types of businesses, particularly small businesses, to thrive; it connects service providers and service seekers.

The website will assist consumers by giving outstanding business experiences in just one step by experienced sellers. This benefits a variety of retailers as well. It functions as a platform where you can easily choose products as per your needs. The website offers a shared platform for clients and providers to interact. Customers seek products from providers, and providers charge customers for such goods. And we're the go-between. When a mediator tunes up these people and prepares them to operate diligently in an innovative system, they play a critical function in the e-commerce platform.

Taking a market business for buying and selling online comes with its own set of obstacles. Customers who rely on word of mouth and product reviews from past customers are the most common. The geographic location of a market is critical for drawing offline customers, limiting the scope of the business. If the website can give the businesspeople a way to analyse their sales and keep track of the competitors, it will be helpful to the website.

As a result of the preceding points, it is clear how difficult it is to run a market business online. The local business web-app is committed to engage in a specific city. Products can be delivered to numerous areas throughout the city by providing an online service, which greatly expands the company's reach. Customers can also receive special discounts through coupons because of this, in order to encourage them to order more and more frequently. The product will be assigned to the delivery person through the seller based on a unique scheduling algorithm, ensuring that no user will have to wait long for their product. In addition, the system will allow buyers to be the sellers and vice versa, allowing the user to try combinations that others have enjoyed in the past.

Functionalities:

1.1 Login/Signup (Buyer/Seller):

Buyers and Sellers both use a shared login and sign-up page.

We are allowing five categories for sellers: groceries, restaurants, liquor shops, and electronics.

We will ask the user for the first name, last name, DOB (if the buyer wants to buy from liquor shops, we will check their age), phone number, city, and password. If the user wants to register as a buyer, we will ask the user to input their business name.

All passwords will require a format and will be stored in the database encrypted.

The buyer can only purchase from sellers if they are in the same city.

1.2 Seller List (list of all local sellers):

The buyers will be able to see a list of all the sellers in the same city. The user can sort according to categories (groceries, restaurants, liquor stores, etc).

If the user's age is below 19, the user will not see liquor stores.

1.3 Seller Items

When the buyer clicks on a seller, they will be able to view the products the seller is selling. The user, from here, can select the quantity of each item, view subtotal and add the items to the cart.

1.4 Cart

The buyer can view all items they added to their cart and the total cost of the items. The buyer can change the quantity of items or remove the item. They can place the order from the cart.

If the user has items in cart from a different seller, they will have to clear the cart in order to add items from a different seller.

1.5 Order History

The buyer can view previous orders and review their order experience. The reviews will be public.

1.6 Order Tracking

The buyer can track the current status of their order. Along with current status, they can see the items they ordered, the quantity of each item, subtotal and order total.

1.7 Coupons

The user can view available coupons for every seller and apply the coupon in the cart.

1.8 User Profile

The buyer can change information such as their first name, last name, and phone number.

2.1 Seller Order List (Current Order)

When a user logs in as a seller, the first page they will see is the current orders page. The seller will see all the open orders and recently fulfilled orders (previous orders).

2.2 Seller Analytics

Here the seller will be able to see basic analytics like revenue, orders, and popular products weekly, monthly or in a custom date range.

2.3 Manage inventory

The seller can manage inventory over the inventory tab/page. The seller can add a product from over here.

2.4 Coupons Management

The seller can create/update or remove a coupon from the coupons management page.

2.5 Seller Profile

The seller will be allowed to change their business name from this page.

2.6 Manage Order Page

Upon clicking an active order, the seller will be allowed to receive or decline the order. After receiving the order, the user can add delivery information such as expected delivery time and delivery person's details.
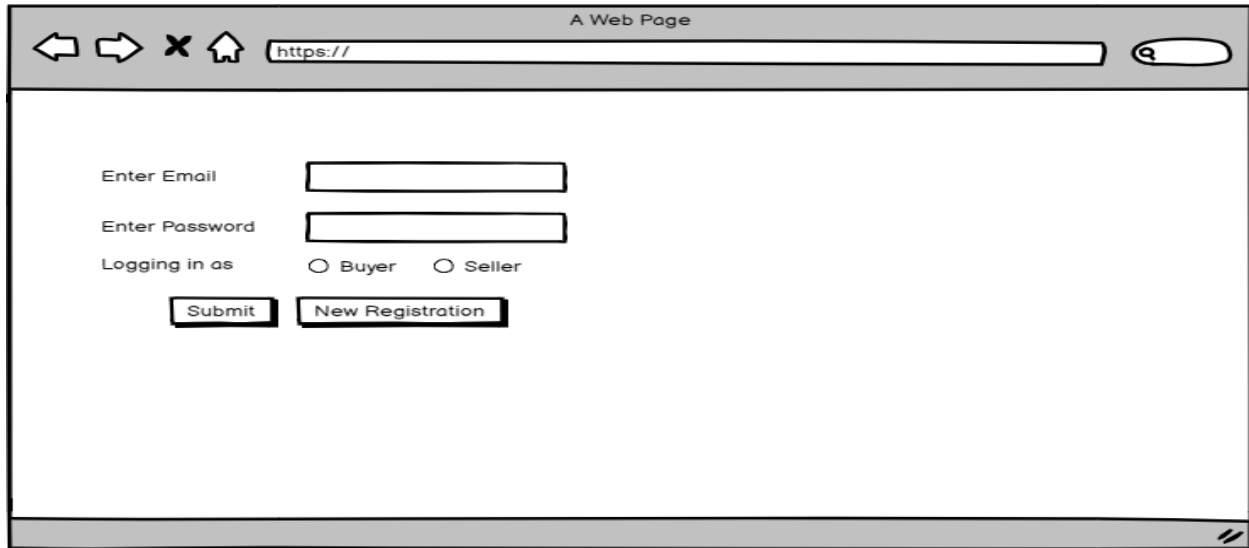
2.7 View Reviews

The seller can view reviews dropped by users.

Mock-ups:

Login:

Common login page for buyers and sellers. Submit will take you to the seller or buyer dashboard, New Registration will take you to the registration page.
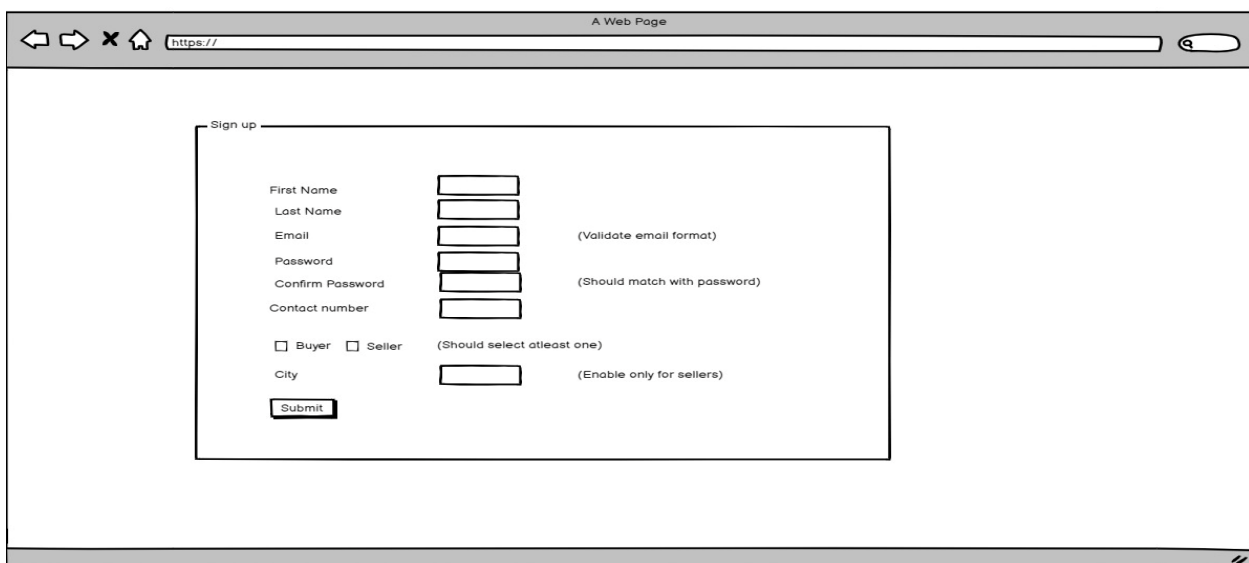

[Citation] [Image reference: "balsamiq cloud"] [1]

Registration:

Common registration for buyers and sellers. All passwords will be encrypted and stored. We will also validate all the fields for any errors.

[Citation] [Image reference: "balsamiq cloud"] [1]

After buyer logs in:

The buyer will see a list of all the sellers in the same city.

[Citation] [Image reference: "balsamiq cloud"] [1]

Buyer Order History:
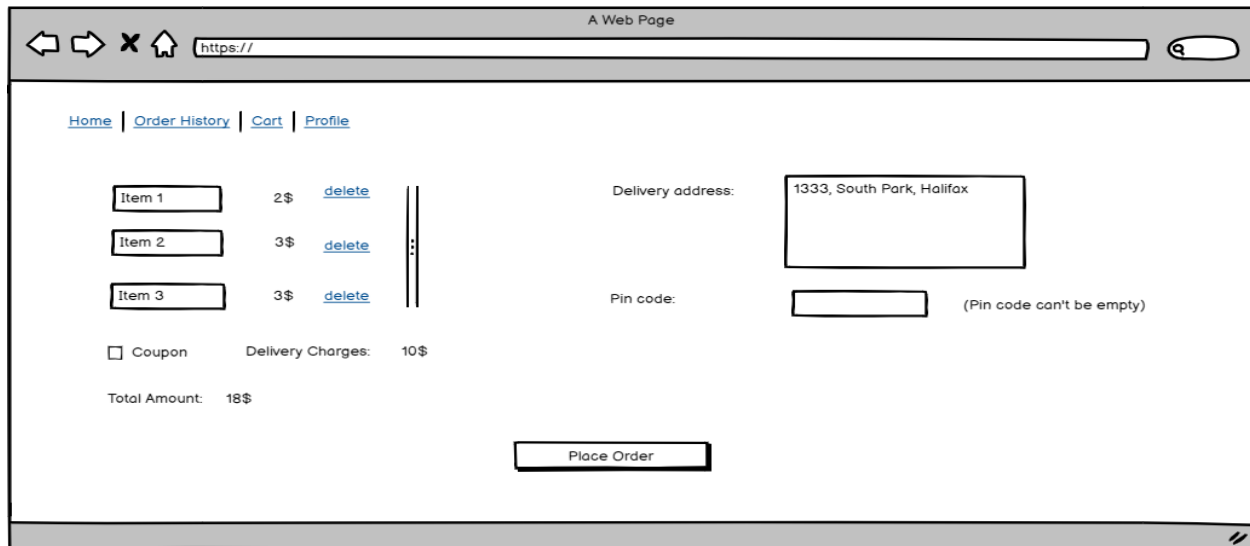
The buyers can see a list of all the orders they have made, and they can review fulfilled orders. Upon clicking "tracking" the user will be navigated to the order details page.
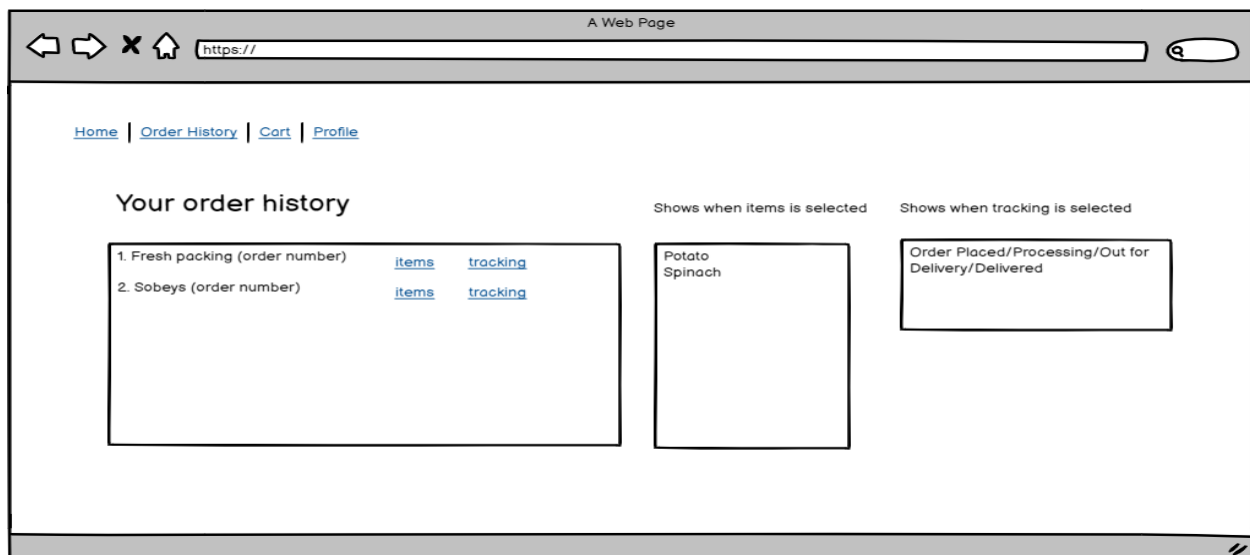
[Citation] [Image reference: "balsamiq cloud"] [1]

Cart/Delivery Info:

After the buyer adds an item to their cart, they can add delivery information, view order total, delivery charges and proceed to pay for the order (by clicking on place order).

[Citation] [Image reference: "balsamiq cloud"] [1]

Payment:

The buyer can pay via credit card.

[Citation] [Image reference: "balsamiq cloud"] [1]

View Orders (Sellers):

The seller would be able to see new orders and recently fulfilled orders. Open clicking on a new order, the seller can either receive or cancel the order. After receiving the order, the seller can deliver the goods after providing the delivery person's information.
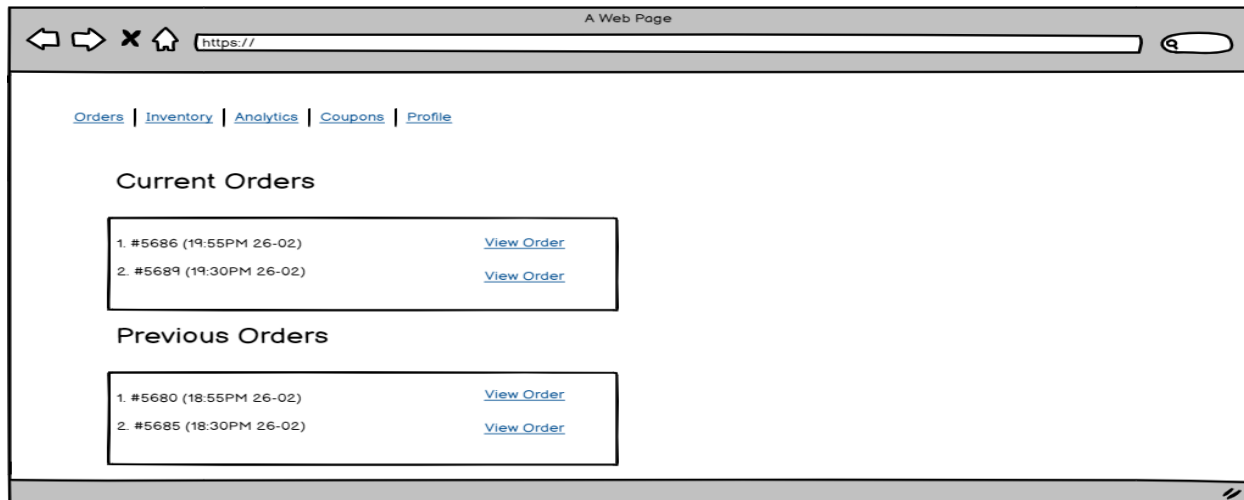
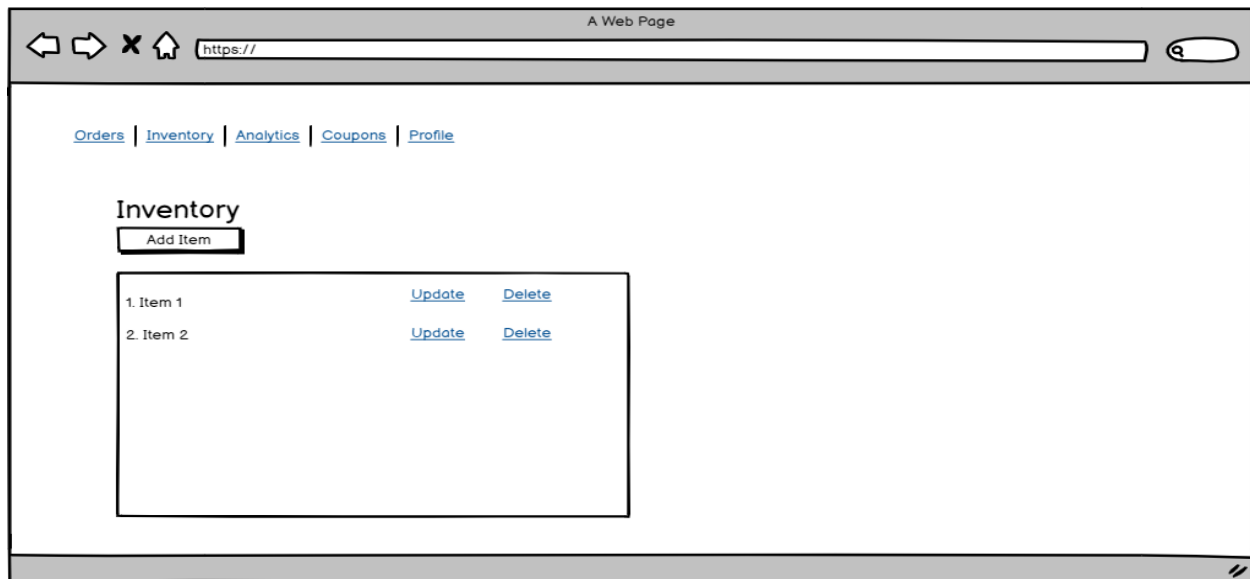[Citation] [Image reference: "balsamiq cloud"] [1]

Order Tracking:

The buyer will be able to view the information related to order like ordered items, quantity ordered, subtotal, delivery charges, total charges, current order status and delivery person's information.
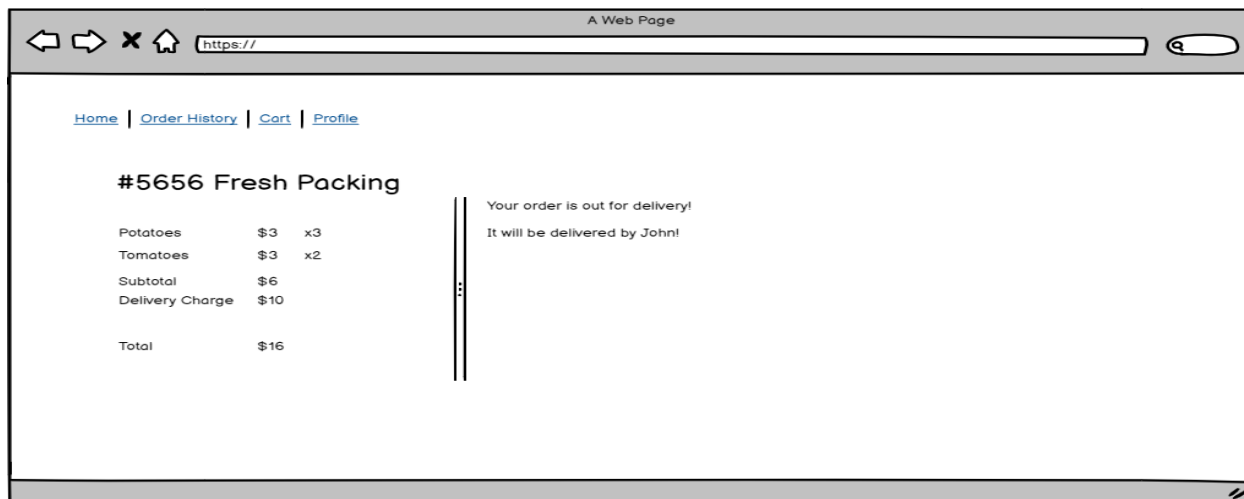
[Citation] [Image reference: "balsamiq cloud"] [1]

Inventory (Seller):

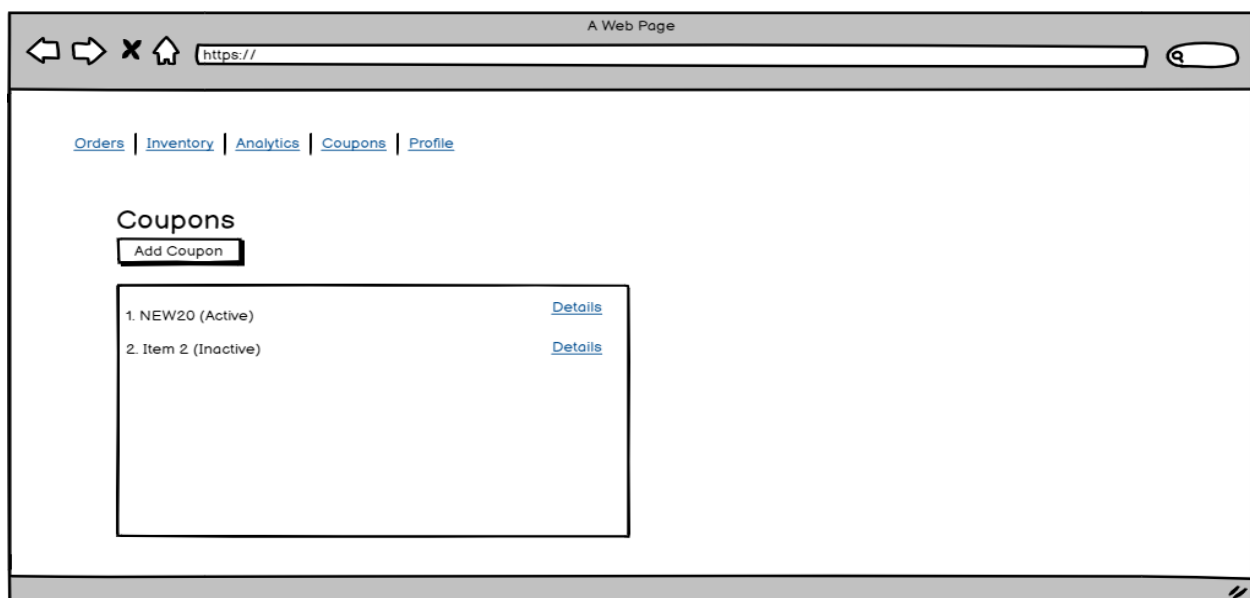The seller can view items, add, delete, or update inventory items.

[Citation] [Image reference: "balsamiq cloud"] [1]

Coupons (Seller):

The seller can add a new coupon or modify/disable existing coupons.

[Citation] [Image reference: "balsamiq cloud"] [1]

Profile (Seller):

The seller profile. Only business name, phone and email can be edited.

[Citation] [Image reference: "balsamiq cloud"] [1]

Timeline:

Sprint 1 (24th May - 5th June):

- Setup CI/CD for project

- Decide on a TDD Approach

- DB design

- Setup basic flow of the project

- Buyer and Seller signup

- Buyer and Seller login Authentication

- View all Service Providers

We would achieve 7-10% functional completeness in Sprint 1.

Sprint 2 (5th June – 17th June):

- View all Services with ratings.

- Profile Settings

- Search for different services.

- View services lists are sorted by different filters like date, popularity.

- Buyers can add items to cart from the services menu.

- Buyers can view cart items and remove service items from cart.

- Place an order and show order details to buyer and seller.

- Deploy to production.

We would achieve 20% functional completeness in Sprint 2.

Sprint 3 (18th June – 30th June):

- Inventory Management for sellers.

- Add order tracking for buyers.

- Sellers can view active and previous orders.

- Sellers can update status of orders including setting estimated delivery time.

- Management of coupons from the seller panel.

- Deploy to production.

We would achieve 50% functional completeness in Sprint 3.

Sprint 4 (1st July – 24th July):

- Show analytics to sellers based on total orders, most selling items.

- Suggest frequently bought items to buyers.

- Ability to add reviews and ratings after order delivery.

- Send email notifications for updates related to orders.

- Deploy to production.

We would achieve 100% functional completeness in Sprint 4.

Time Distribution:

Task	Hours
1. Project Proposal Discussion	10
2. CI/CD Setup	10
3. Writing test cases	100
4. Development (Business Layer)	200
5. Code Integration	50
6. Integration Testing	20
7. Deployment	10

References:

[1] Balsamiq, "balsamiq collaborative wireframing" [Online]. Available: https://balsamiq.cloud/. [Accessed: 26-May-2022].