**Requirement 1: Complete React implementation of the *Homepage* that has the listing of the products/services.**

**Home Page:**

The Homepage contains all the products in On-Mart Superstore from different categories and departments like furniture, Grocery, Electronics, Clothing and Appliances, etc.

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When user click on the All Departments, he will be able to see the multiple departments in the On-Mart Store, as below.

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Each Department have the different categories and each category will have different products.

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The above image shows the different categories in the clothing department.

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The above image shows the products of the dresses under clothing.

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Once we selected the product, we will be able to see the product details and Price of the product and user can be able to add the product to the cart.

**Requirement 2: Complete React implementation of the *Shopping Cart* feature. Add and Delete items to/from the shopping cart**

When user click on Add to Cart button a confirmation shows successfully added to cart at the top right corner of the page as shown below

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It’s a toast message which only be displayed for 3 seconds.

When user click on the Cart icon then user will be redirected to the cart page where the added items will be displayed.

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Let’s add one mobile to the cart and delete it from the cart.

A screenshot of a cell phone

Description automatically generated

Let’s go to the Cart and delete the item.

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Description automatically generated

After clicking on the delete item.

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Once we add all the items we like, later before placing the order we can remove which we are not required to buy.

If the user logged-In, then the user details will be displayed in the checkout fields since the user is not logged-In the checkout fields are empty.

Upon entering the zip code, the total amount will be displayed as part of tax calculation.

Let’s perform the login and place an order.

**Requirement 3: Complete React implementation of the user *Login* feature. User login clearly displayed on the navigation menu/bar across all pages.**

When user click on the login, then user will be navigated to the login page.

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Description automatically generated

I have created a user account for the Admin and Supervisor accounts in the backend.

The credentials as follows username: ‘admin’, password: ‘Admin@123’. Username: ‘supervisor’, password: ‘Super@123’.

If the user was first time, then user can be able to register/signup in the application, by clicking on the signup.

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Once user fill-up the details and signup he will be able to login with his own credentials.

Once user filled up and click on sign up the system will validate the details and finish the signup for the user.

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Description automatically generated

Upon Successful signup user will see a success message at the top of the page as shown above.

Now user can sign in with his own credentials.

When user click on login then, upon successful validation user will be navigated to the home page.

Now we can see the profile of the user login with the first name of the user logged-In as shown above.

Let’s go to cart and place an order,

As we can see the fields are auto populated with the user details. Let’s enter the zip code and place an order.

Upon successfully order we will see a success message at the top of the page as above.

Let’s go to the orders page and check whether our order is successfully placed or not.

**Requirement 4: Complete React implementation of the *Orders* listing/ history feature. Add and Delete Orders using the user login.**

When user click on the orders page, then user will be able to see the existing placed orders.

When user click on the Delete Order button the order will be deleted successfully, upon deleting user will be notified the order is deleted as shown below.

Upon deleting orders, there won’t be any existing order since we had only one order that has been deleted, it will show no orders.

Let’s logout the user,

If user was not logged in there won’t be orders page access link on the header as shown below.

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Description automatically generated

**Requirement 5: Quality of the UI engineered and developed.**

Quality of the UI engineered and developed for the OnMart Superstore application is as follows,

1. **Adherence to Design Principles and Standards:**

* The UI design follows industry-recognized design principles in designing the components, functions and containers of each page.
* The OnMart Superstore utilizes the 3 different layout designs, namely Grid, Card and Responsive layout designs.
* The Grid layout is used for organizing and structuring content and components into rows and columns, ensuring a consistent and organized layout across different views and pages.
* The Card layout is used for presenting and organizing information in a clear and visually appealing manner. Cards are self-contained, modular components that display various types of content, such as product images, user profiles, or notifications.
* Responsive Layout is used to ensure the app's user interface adapts and provides an optimal viewing experience across different devices and screen sizes, such as desktops, tablets, and mobile phones.
* Accessibility best practices are incorporated to make the interfaces usable for individuals with disabilities.

2. **Consistency and Coherence:**

* Consistent use of UI elements, Forms, Toasts, color schemes, and interaction patterns is maintained throughout the application, creating a seamless and better experience for users.
* The overall design language is coherent, ensuring a cohesive look and feel across the app.

3. **Visual Hierarchy and Information Architecture:**

* Clear visual hierarchies are established to guide users' attention and aid in comprehension of information. For example, displaying the products in the card layout.
* Intuitive information architectures and organized better content.
* Implemented efficient navigation.
* Implemented the Accordion, Tabs and Progressive Disclosure pattern in the product information pages.
* Implemented better hierarchical products to navigate to the user choice products instead of scattering the products across the application.
* Contextual Menu Pattern has been used for presenting a set of relevant actions or commands specific to the current context or selected item, such as "Add to Cart,", “Place Order”.

4. **Usability:**

* Usability testing is performed throughout the design process to identify and address potential areas for improvement and introduced the toasting messages, to make user not perform multiple time of adding the items into the cart.

5. **Performance and Responsiveness:**

* UI elements and interactions are optimized for optimal performance, ensuring smooth transitions, and responsiveness.
* Responsive and adaptive layouts are designed to provide a consistent experience across various devices and screen sizes.

6. **Continuous Improvement:**

* The UI design stays up to date with the latest trends, techniques, and technologies, continuously refining and enhancing the quality of the work.
* As a developer, I know there will be always a room for the improvement of the code in the UI and backend for any application.
* The Components are designed to reuse and modifiable to make the existing application a better and useful application in future.

By focusing on the aspects above, the UI engineered and developed for the OnMart Superstore React app aims to deliver high-quality user interfaces that are visually appealing, intuitive, accessible, and optimized for an exceptional user experience. This document highlights the attention to detail and adherence to best practices in UI design, ensuring a better and well-designed user interface for the application.

**Requirement 6: (25 Points) Quality of the UX engineered and developed.**

The quality of the UX engineered and developed for the OnMart Superstore,

1. **Understanding Requirements:**

* Based on the requirements gathered in the phase1 and phase2, I have developed the application in the phase 3 in contrast with the requirements.

2. **Workflow Optimization:**

* The applications functionality is designed as expected for example when user logged-in and placed an order and logged out and then again login the user placed order are displayed and that order is not display in other user logins.
* The Login, Orders, Cart and Product Functionalities are working as expected which makes the design working perfect.

3. **Information Architecture and Navigation:**

* The Information about the products is well structured and designed. The distinguishing the categories of the products is well structured.
* The navigation system is working fine and designed perfectly. User can able to navigate to one product to another product without any extra traveling of inter pages.
* Navigation is made easy from one page to another page by providing easy access to the different functionalities in one page.
* The products are categorization and easy to navigate to the desired product by navigating through the categories and departments.

**4. Interaction Design and Usability:**

* + The application is implemented by using the Responsive and interactive layout design patterns which makes the application more responsive and user friendly to use.
  + The application is designed in easy way that user can be able to understand and use the application without any training or documentation.
  + Implemented the feedback to the user interactions (success and error messages) to help the user understand the application easily and use it without having to worry.

**5. Platform/Device Consistency:**

* + The application is designed with the help of the Responsive layouts, which helps the application run on the multiple devices without any distortion in the UI pages.
  + The efficiency of the UI pages with multiple screens are responsive and adaptive design techniques is used for providing an optimal experience regardless of screen size or input method.

By focusing on the aspects above, the UX engineered and developed for the OnMart Superstore React app aims to deliver high-quality user experience.

**To summarise with a cumulative answer for the above 2 requirements,**

The On Mart Superstore React app has been meticulously designed, incorporating a range of industry-standard UI and UX design patterns to deliver an exceptional user experience. The application's layout is crafted using a combination of Grid, Card, and Responsive Layout patterns, ensuring a consistent and organized presentation of content across various devices and screen sizes.

To facilitate effective information chunking and navigation, the app employs the Accordion, Tabs, and Progressive Disclosure patterns. The Accordion pattern allows users to expand or collapse sections of content, providing a space-efficient way to navigate through large amounts of information. The Tabs pattern organizes content into distinct categories or views, enabling users to seamlessly switch between different sections or types of information. The Progressive Disclosure pattern reveals additional details or functionality based on user actions, reducing clutter and enhancing the overall user experience.

Furthermore, the app incorporates various patterns for lists and commands/actions, such as the Vertical List Pattern, Action Toolbar Pattern, and Contextual Menu Pattern. These patterns ensure that users can easily scan and identify individual items, access relevant actions and commands within the current context, and perform context-specific operations on selected items.

In terms of forms and controls, the app utilizes the Form Wizard Pattern, Input Validation Pattern, and Input Masking Pattern. The Form Wizard Pattern breaks down complex processes into multiple steps, guiding users through each step sequentially. The Input Validation Pattern ensures that user input adheres to specific rules and constraints, preventing the submission of invalid data. The Input Masking Pattern formats user input in specific fields, such as credit card numbers or phone numbers, making it easier for users to enter and verify information correctly.

By incorporating these well-established UI and UX design patterns, the OnMart Superstore React app aims to deliver a intuitive, and user-friendly experience, ensuring that users can efficiently navigate, interact with, and consume content within the application.

**Additional Features:**

When user click on the profile or name of the user, it will navigate to the user profile page as shown below,

User can perform update his personal information.

In the Orders page user can be able to click on the item, which will then navigate the user to the product page.

Upon click on the item title the user navigates to the product page as shown below.



The navigation bar will help the user to navigate from one department to another easily.

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The product navigation helps users navigate from one department to another and one category to another easily.

**Responsive Layout:**

**Tablet layout:**

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**Mobile Layout:**

A screenshot of a bookcase

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**Laptop Layout:**

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