# **Prototyping Task 2**

# **Functional Requirement:**

Description: The application shall provide a unified user authentication system that enables users to access all integrated services and features within the app using a single set of login credentials.

Rationale: A unified authentication system is required to eliminate the need for multiple passwords and simplify user access.

- 1. Users shall be able to create an account with the application using their email addresses or social media accounts (e.g., Google, Facebook).
- 2. Upon account creation, users shall set a single password for their account, which will serve as the primary authentication method.
- 3. Using industry-standard encryption techniques, The application shall securely store user authentication data, including passwords.
- 4. Users shall be able to reset their password in case of forgetfulness or account recovery, following a secure identity verification process.
- 5. When accessing any integrated service or feature (e.g., clothing, shopping, food, navigation), users shall be prompted to log in using their unified login credentials.
- 6. After successfully logging in, users shall have seamless access to all integrated services without the need for repeated logins during a single session.
- 7. The application shall implement security measures to protect against unauthorized access and data breaches.
- 8. Users shall have the option to log out from their unified session to ensure account security.
- 9. User Registration: Users must be able to create an account with a username and password.

- 10. Search Functionality: The system should allow users to search for products by keyword.
- 11. Shopping Cart: Users should be able to add and remove items from their shopping cart.
- 12. Payment Processing: The system must process payments securely through multiple payment methods.
- 13. Email Notifications: Users should receive email confirmations for their orders.

# **Non-Functional requirements**

#### 1. Performance Requirements:

Response Time: The application should provide fast response times, ensuring that users can access information and perform tasks quickly.

Scalability: The system should be able to scale gracefully to accommodate increased user traffic without significant performance degradation.

Efficiency: The application should be resource-efficient to minimize CPU and memory usage on users' devices.

#### 2. Usability and User Experience:

Intuitive User Interface: The user interface should be intuitive and user-friendly, with clear navigation and a visually appealing design.

Accessibility: The application should comply with accessibility standards to ensure that it can be used by individuals with disabilities.

Consistency: The user experience should be consistent across different features and services within the unified app.

## 3. Security and Privacy:

Data Encryption: User data, including personal information and payment details, should be securely encrypted during transmission and storage.

Authentication: Strong authentication methods should be in place to protect user accounts and sensitive data.

#### 4. Reliability and Availability:

Availability: The application should be highly available, with minimal downtime for maintenance.

Data Backup: User data should be regularly backed up to prevent data loss in case of system failures.

### 5. Compatibility:

Device Compatibility: The application should be compatible with a wide range of devices, including smartphones and tablets, across various platforms (iOS, Android).

Browser Compatibility: If a web version is available, it should be compatible with major web browsers.

#### 6. Data Management:

Data Security: Measures should be in place to protect user data from unauthorized access, including data breaches and cyberattacks.

Data Storage: Efficient data storage mechanisms should be employed to optimize storage space on users' devices.

# **Low fidelity Design**





