**#### Functional Requirements:**

### Registration and Login

| ID | Requirement|

| :--:| :------------------------------------------------------------------------------------------------ |

| FR1 | <The system shall allow Users/Admins to log in when they click the Login button.> |

| FR2 | <The system shall allow users to navigation to the account creation screen when clicked on Sign Up button.>|

| FR3 | <The system shall allow users to access the product browsing screen upon clicking the ShopApp button.> |

| FR4 | <The system shall allow account creation when the Create Account button is clicked.>|

| FR5 | <The system shall allow navigation to the Login screen when the Sign In button is clicked.>|   
  
  
  
### Shopping Cart

| ID | Requirement|

| :--:| :---------------------------------------------------------------------------------------------------- |

| FR6 | <The system shall allow users to log out upon clicking the Signout icon.>|

| FR7 | <The system shall allow users to reduce the quantity of products in the cart by clicking the minus button.>|

| FR8 | <The system shall allow users to increase the quantity of products in the cart by clicking the plus button.>|

| FR9 | <The system shall display a pop-up confirming successful payment upon clicking the Pay Button.>|

| FR10 | <The system shall display user information such as name, address, and email upon clicking the Checkout button.>|   
  
  
  
  
### Admin and Order Management

| ID | Requirement|

| :---:| :--------------------------------------------------------------------------------------------------------------- |

| FR11 | <The system shall allow navigation to the main page upon clicking the Home icon.> |

| FR12 | <The system shall display a list of orders upon clicking the Orders button.>|

| FR13 | <The system shall reveal detailed information about a selected order upon clicking the Action button in the orders list.> |

| FR14 |<The system shall allow deletion of an order upon clicking the Delete button in that order.>|

| FR15 | <The system shall allow navigation to the Products screen upon clicking the Products button on the Admin Main screen.> |

### Product Browsing

| ID | Requirement|

| :---:| :----------------------------------------------------------------------------------------------------------- |

| FR16 | <The system shall allow navigation to the User Accounts screen upon clicking the User Account icon.> |

| FR17 | <The system shall enable product searches when a product name is entered in the search bar.>|

| FR18 | <The system shall allow users to add items to the cart by clicking the Add button.> |

| FR19 | <The system shall allow users to scroll through the list of products on the product browsing screen.> |

| FR20 | <The system shall allow navigation to the cart screen upon clicking the Cart icon.> |   
  
  
  
### Admin Product Management

| ID | Requirement|

| :---:| :------------------------------------------------------------------------------------------------------------------------- |

| FR21 | <The system shall navigate users to the Add New Products screen upon clicking the Add Products button in the products list screen.>|

| FR22 | <The system shall allow the addition of new products upon clicking the Add Product button on the Add Product screen.>|

| FR23 | <The system shall enable image selection from the device upon clicking the Choose File button in the Add New Product screen.>|

| FR24 | <The system shall allow modifications to the product name and price upon clicking the Edit icon.>|

| FR25 | <The system shall allow removal of a product from the list upon clicking the Delete icon.>|   
  
  
  
**### Non Functional Requirements:**

### User Authentication and Data Security

| ID | Requirement|

| :---:| :----------------------------------------------------------------------------------------------------------------- |

| NFR1 | <The system shall utilize Firebase Authentication for secure user login via email and password.> |

| NFR2 | <The system shall enforce advanced password complexity rules to enhance account security.> |

| NFR3 | <The system shall use Firebase Security Rules to control database and storage access, ensuring only authorized users can modify data.> |

| NFR4 | <The system shall encrypt user data for secure storage and transmission.> |

| NFR5 | <The system shall restrict administrative functions to authorized personnel only.> |

### Usability Requirements

| ID | Requirement |

| :---:| :---------------------------------------------------------------------------------------------------------------------- |

| NFR6 | <The system shall provide an intuitive interface, enabling easy interaction with features and information.> |

| NFR7 | <The system shall ensure smooth and intuitive navigation between different website pages, minimizing load times and enhancing user flow.> |

| NFR8 | <The system shall maintain consistent branding and design across all website elements, from the homepage to individual product pages, to ensure a cohesive user experience.> |

| NFR9 | <The system shall immediately update the shopping cart icon to reflect the correct number of items when a product is added, ensuring real-time accuracy.> |

| NFR10| <The system shall be designed with responsive elements for optimal usability and layout on various devices, including desktops, tablets, and smartphones.> |   
  
  
### Compatibility Requirements

| ID | Requirement |

| :---:| :------------------------------------------------------------------------------------------------------------------------- |

| NFR11| <The system shall render consistently across different web browsers, including Chrome, Firefox, and Safari, ensuring uniform functionality and appearance.> |

| NFR12| <The system shall feature a responsive layout, automatically adapting to various screen sizes to maintain usability and visual appeal across devices.> |

| NFR13| <The system shall support multiple image formats, like JPG, PNG, GIF, in the product image upload feature, ensuring compatibility across different browsers.> |

| NFR14| <The system shall dynamically update item quantities and totals in the shopping cart in real-time, eliminating the need for page refreshes.> |

| NFR15| <The system shall design quantity selectors to respond effectively to both mouse clicks and touch inputs, accommodating interaction across a wide range of devices.> |

### Reliability Requirements

| ID | Requirement|

| :---:| :------------------------------------------------------------------------------------------------------------------------- |

| NFR16| <The system shall maintain consistent and error-free data across all user interactions and transactions, preventing discrepancies or conflicts.> |

| NFR17| <The system shall ensure an uptime of 99.9%, guaranteeing constant accessibility for users.> |

| NFR18| <The system shall continuously update product information and pricing in real-time, syncing with the inventory management system for accuracy.> |

| NFR19| <The system shall persistently store user selections in the shopping cart across multiple sessions.> |

| NFR20| <The system shall provide immediate and clear confirmation messages or visual cues when users add, edit, or delete products, preventing unintentional data modifications.> |

### Performance Requirements

| ID | Requirement |

| :---:| :------------------------------------------------------------------------------------------------------------------------- |

| NFR21| <The system shall support a specified maximum number of concurrent users based on projected traffic without experiencing performance degradation.> |

| NFR22| <The system shall allow multiple users to retrieve and view their order summaries concurrently without losing performance.> |

| NFR23| <The system shall handle image uploads efficiently, resizing and compressing images within 2 seconds for web optimization without quality loss.> |

| NFR24| <The system shall display an error message to the admin within 1 second in cases of errors, such as incorrect credentials or server issues.> |

| NFR25| <The system shall ensure server response times are consistently quick enough for all user actions, ensuring swift backend data processing and a seamless experience.>­­|