Chapter No. 02

Interface Requirement

Interface requirements are defined as those that the system must accomplish. These include the both hardware and software interface requirements. Smart Access is an android based application & Web App and mostly be made up of software components, which highlights the importance of designing the interface components in such a way that are ease in interaction and well in performance. These are the following hardware and software interface requirements of our application.

Hardware Interface Requirement

These are the various hardware interface requirements that are necessary for development and deployment of an application.

Desktop Computer/Laptop

Desktop computer or laptop having high end specifications are required due to modern technologies and tools (like flutter and react, etc) used in development process of an application. The minimum required specifications are 6 gigabytes of RAM, Core i5 Processor and 512 gigabytes of SSD.

Android Smart Phone

Smart Access is an android based application that must deploy and run on an android based smart phone. So, an android smart phone having minimum 2 gigabytes of RAM is required with an internet connection.

Software Interface Requirement

These are the following software interface requirements that are essential for the development of an application.

React Native

Hybrid Platform that combines the best parts of native development with React, a best-in-class , Function JavaScript library for building operator interfaces.it also used some other libraries like Code Push.

JavaScript/React JS

For Web Side Panel, Various JavaScript and its powerful library React JS is required.

Visual Studio Code

As a code editor, visual studio code is required because an excellent editor makes the work one-hundred times easier and visual studio code has all the capabilities that declare it an excellent editor.

Database Requirement

Database is a necessary segment of an application, which provide an ability to perform various data operations at back-end. The following database is required in Both Android and Web Sides.

Firebase

For back-end database operations, Firebase is required because the application used cloud-hosted NoSQL realtime database.

Functional Requirement

Functional requirements are actual product features or functions that developers must implement. These are the various functional requirements of Smart Access ,an **android based application & Web Based Panel**.

**App** **Functions :**

* Signup/Login

Smart Acess is very secured and not available for public usage so everyone cannot allow to login into the app handle it from firebase manually that which operator can login and track records.

* Delete Request

The Delete Record Management Process through the application is designed to handle and manage deletion requests for records within the Distribution web panel. This process plays a crucial role in ensuring the efficient removal of records as per user requests. By utilizing this process, admin are able to initiate and track deletion requests, facilitating a streamlined and organized approach to record management within the application.

* Sales Man Records

This Feature Show Real Time Graph Representation into the app which shows Salman recovery remain are other details such as loan empty recovery balance.

* Employee

In this page it include all the records of an employee which includes loan, recovery, remain as well as details is in which includes Credit Debit details and balance details as well managed by dates and show Graphical Representation of Employee Loan , Recovery & Remain.

* **Daily Activity:**

The daily activity section provides access to all records on a daily basis. It includes the starting time of work, a detailed table of records.

* Advance Features

In advanced feature page you can select delete the bank as well as you can see all the records of the bank in which day includes (date of transaction amount as well as Credit Debit record from to to record etc) and insecurities on session you can add a operator who can access website panel are login into that parallel to manage over distribution section and it also has a feature of security to check password using fingerprint authentication.

**Website Functions :**

* Stocks

In the stock management section, we can effectively handle the inventory of all available categories. Currently, we have RGB 500 ml, 1000 ml, 1500 ml, and other variations. We can submit stock orders to the warehouse and utilize the warehouse function to access comprehensive stock data and calculate the current stock levels available.

* Daily Sale

In the daily sales module, we oversee the management of inventory and stocks that are dispatched by drivers and subsequently returned. Our goal is to ensure efficient handling of these transactions.

* Empty

This module facilitates the management of empty stocks that are returned to the company. Whether it involves pallets returned by our own company or third-party entities, we maintain real-time records of empty stocks within the warehouse.

* Sales Man Recovery:

.Salesperson recovery encompasses all records associated with individual salespeople, including loan recovery, closing balances, current balances, and the ability to delete records. This module also supports credit and debit functionalities.

* Sales Man (Record Book):

The Salesperson Record Book contains a comprehensive log of credit and debit transactions, allowing us to track their history by date and effectively monitor their sales performance.

* Other Staff (Record Book):

Similar to the Salesperson Record Book, the Other Staff Record Book contains detailed credit and debit transaction records for all staff members, enabling efficient tracking of their performance and financial activities.

* Employee Recovery:

The Employee Recovery Book consolidates all data related to employee loan recoveries. It provides insights into loan recovery records, categorized by months and dates, facilitating effective management and analysis.

* Daily Expenses and Closing:

Within the Daily Expenses and Closings module, we can record various expenses that occur during distribution, including bills, vehicle expenses, miscellaneous expenses, and expenditures related to salespeople, employees, and investors. This module provides real-time tracking of total cash, bank transfers, and daily closing records.

* Vehicle Expenses

This section records all vehicle-related expenses, allowing us to track monthly expenditures and apply relevant filters to streamline the data.

* Miscellaneous Expenses

Miscellaneous expenses encompass various expenditure categories, such as distribution, construction, stationery, and food expenses.

* company Credit Debit

The Company Credit and Debit module enables the addition of debit transactions, such as incentives or discounts, as well as credit transactions, such as uniform expenses or other relevant items.

* Tax

This section maintains records of monthly tax payments and closing balances, with the ability to filter data based on specific months.

* Billls

In the bill management section, we handle all types of distribution-related bills and maintain their records. This includes bills from service providers like PTCL, WAPDA, and gas companies.

* **Net Profit:**

The net profit module allows us to calculate the overall profit by considering total expenses, discounts, company expenses, total sales, current stock levels, total incentives, and net profit.

* **Rate Manager:**

In the rate manager module, we can efficiently manage the prices of various stocks. For example, we can set rates for RGB, 500 ml, and 1500 ml stocks. These rates will be utilized for future calculations within the web portal.

* **Promo Manager:**

The promo manager section enables us to add promotions or discounts for different stock items, providing the flexibility to modify their current prices separately.

* **Investor:**

Within the investor section, we maintain a list of all investors associated with the company or distribution. This includes their details, credit and debit information, as well as transaction history.

* **Balance Sheet:**

The balance sheet module allows us to generate comprehensive balance sheets that include records of both debit and credit transactions.

* **Daily Activity:**

The daily activity section provides access to all records on a daily basis. It includes the starting time of work, a detailed table of records, and the option to print out relevant information.

* **Profit & Loss:**

The Profit and Loss module offers a detailed overview of our current financial status, including profit or loss figures, closing balances, and credit and debit records.

**Non Functional Requirement**

Non-Functional requirements specify the quality attributes of a product and how well it will operate. These are the following non-functional requirements of an application.

Usability

Smart Access provide effectiveness, efficiency and the overall satisfaction of the operator, when they interact with the application.

Scalability

The application is scalable because of an iterative approach used while development. In future, any addition or detached of feature is easily possible.

Maintainability

The application is written by using write-clean code approach. The code is well-organized according to in order structure inside different files and directories.

Performance

The performance of an application is smooth due to modern front-end and back-end technologies. The operators observe the experience of an application overall excellent.

Security

The application obeys both confidentiality, integrity and availability CIA triad.Only Admin Can Handle Main Functionalities or Accessibility of Apps. The application is available 24-hours, whenever the operators want to use it.

Use Case Diagram

When a system is examined to gather its functionalities, use cases are created. Below is the following illustrative representation of application use cases.

Use Cases Description Tables

These are the following use cases (illustrate in an above use case diagram) description tables of Smart Access.

|  |  |  |  |
| --- | --- | --- | --- |
| App Login Use Case Description Table | | | |
| Name | Login | | |
| ID | UC-01 | | |
| Objective | This use case defines the login process on the application. | | |
| Brief Description | The Admin Can Login in App Which Login is controlled by Firebase | | |
| Pre-Condition | Operator must have to an account in an application or Google. | | |
| Post-Condition | The App is login / Accessed successfully. | | |
| Failed Condition | If you Don’t Have Prmission to Access The App From Firebase | | |
| Primary Actor | Admin | | |
| Dependency | Firebase Approved Use Case | | |
| Basic Flow | Steps | Action | Response |
| 01 | The operator open the application. | The system will show the panel screen. |
| 02 | Admin Can Acess The App if he is already approved From firebase | App Will be Accssible |
| Alternative Flow | Errors | Action | Response |
| 01 | Admin not have acess of App | The system will throw the message That you not have Accessibility |

Use Case Description Table 01: Login

|  |  |  |  |
| --- | --- | --- | --- |
| Delete Record Use Case Description Table | | | |
| Name | Delete Record | | |
| ID | UC-02 | | |
| Objective | This use case outlines the Delete Record Management Process through the application. Essentially, it involves displaying all the deletion requests for records from the Distribution web panel. | | |
| Brief Description | The primary objective of the Delete Record Management Process within the application is to effectively handle and oversee deletion requests for records in the Distribution web panel. This process plays a vital role in ensuring the prompt and accurate removal of records as requested by users. By implementing this process, users can conveniently initiate and monitor their deletion requests, promoting an organized and efficient approach to record management within the application. | | |
| Pre-Condition | Admin must have Access of an account in an application. | | |
| Post-Condition | Deletion Request Send to Database Successfully | | |
| Failed Condition | Due to Some Inappropriate handling | | |
| Primary Actor | Admin | | |
| Dependency | Login Use Case | | |
| Basic Flow | Steps | Action | Response |
| 01 | The operator open the application and Click on Delete Request Section | The system will show the Delete Request Screen |
| 02 | Admin Can Delete Details of Deleted Record Request using Delete icon | A Popup Appear For Confirmation of Deletion |
| 03 | The operator select the services form option at bottom navigation bar. | The system will open the services form page. |
| 04 | By Click On Agree Button | System mark the Requst as Deleted |
| Alternative Flow | Errors | Action | Response |
| 01 | By Clicking Disagree | Not Change Anything Deletion Request Will be Cancel |

Use Case Description Table 02: Deletion Service

|  |  |  |  |
| --- | --- | --- | --- |
| Sales Man Record Use Case Description Table | | | |
| Name | Sales Man | | |
| ID | UC-03 | | |
| Objective | This use case defines the real-time graphical representation within the application, illustrating Salman's recovery progress and other information, such as the remaining loan balance and the amount recovered so far | | |
| Brief Description | The real-time graphical representation feature in the application, enabling users to visually track Salman's recovery progress. The feature offers a dynamic display of Salman's ongoing recovery journey, including crucial details such as the remaining balance on his loan and the cumulative amount he has successfully recovered. By providing this visual representation, users can easily gauge Salman's progress and stay informed about his recovery status. This feature enhances the overall user experience by offering a concise and visually appealing summary of Salman's recovery journey within the application. | | |
| Pre-Condition | Operator must have an account in an application To Access Sales Man Records | | |
| Post-Condition | The service credentials are successfully updated. | | |
| Failed Condition | When you Don’t have access to Admin Account | | |
| Primary Actor | Admin | | |
| Dependency | Login Use Case | | |
| Basic Flow | Steps | Action | Response |
| 01 | The operator open the application and Click on Sales Man Record. | The system will show the Sales Man Record Scren  And show Graph Representation of Sales man Records |
| 03 | Click on Details. | It will open a modal with all details of Sales Man Including (Loan , Empty , Recovery, Credit / Debit and Balance). |
| Alternative Flow | Errors | Action | Response |
| 01 | The required credentials are missing. | The system will throw the message to must fill the required Crieteria |
| 02 | You Don’t Have Admin Access to Check Details | Show A Popup That you don’t Have Access |

Use Case Description Table 03: Sales Man Record

|  |  |  |  |
| --- | --- | --- | --- |
| Daily Activity Use Case Description Table | | | |
| Name | Daily Activity | | |
| ID | UC-04 | | |
| Objective | The objective of the daily activity section is to provide users with convenient access to comprehensive records on a daily basis. It aims to present relevant information such as the starting time of work and a detailed table of records, enabling users to track their daily activities effectively. | | |
| Brief Description | The daily activity section serves as a centralized hub within the application, offering users a convenient way to access and review their daily records. It prominently displays the starting time of work, allowing users to quickly identify when their workday began. Additionally, it provides a detailed table of records, which encompasses comprehensive information related to the user's daily activities. This may include tasks performed, milestones achieved, time spent on specific activities, or any other relevant data. By presenting this detailed overview, users can easily analyze their daily productivity and gain valuable insights into their work patterns. | | |
| Pre-Condition | Admin must have an account in an application Data Base. | | |
| Post-Condition | Visit Daily Basis Activities | | |
| Failed Condition | Internet Connection Lose | | |
| Primary Actor | Admin | | |
| Dependency | Login Use Case Diagram | | |
| Basic Flow | Steps | Action | Response |
| 01 | The operator open the application. | The system will show the Daily Activity Screen. |
| Alternative Flow | Errors | Action | Response |
| None | None | None |

Use Case Description Table 04: Daily Activity

|  |  |  |  |
| --- | --- | --- | --- |
| Employee Record Use Case Description Table | | | |
| Name | Sales Man | | |
| ID | UC-05 | | |
| Objective | The objective of this page is to provide a comprehensive overview of an employee's records, including loan information, recovery progress, remaining balance, as well as detailed credit and debit information. It aims to organize these records by dates and present them in a graphical representation, offering a visual summary of the employee's loan, recovery, and remaining balance | | |
| Brief Description | This page serves as a centralized repository for all relevant records pertaining to an employee. It includes detailed information regarding loans, recovery progress, and remaining balances. The records are organized and managed based on dates, allowing users to easily navigate and access specific entries. In addition, the page provides a graphical representation of the employee's loan, recovery, and remaining balance. This graphical display enhances understanding by visually representing the data and enabling users to quickly assess the employee's financial status and progress. Furthermore, the page also includes credit and debit details, offering a comprehensive view of financial transactions associated with the employee's account. | | |
| Pre-Condition | Operator must have an account in an application To Access App Functionality | | |
| Post-Condition | Admin Can Access Records | | |
| Failed Condition | When you Don’t have access to Admin Account | | |
| Primary Actor | Admin | | |
| Dependency | Login Use Case | | |
| Basic Flow | Steps | Action | Response |
| 01 | The operator open the application. And Click on Employee Record | The system will show the Employee Records Screen  And show Graph Representation of Sales man Records |
| 03 | Click on Details. | It will open a modal with all details of Sales Man Including (Loan , Empty , Recovery, Credit / Debit and Balance). |
| Alternative Flow | Errors | Action | Response |
| 01 | The required credentials are missing. | The system will throw the message to must fill the required Crieteria |
| 02 | You Don’t Have Admin Access to Check Details | Show A Popup That you don’t Have Access |

Use Case Description Table 05: Employee Records

|  |  |  |  |
| --- | --- | --- | --- |
| Advance Features Use Case Description Table | | | |
| Name | Advance Feature | | |
| ID | UC-06 | | |
| Objective | Objective of the advanced feature page is to provide users with enhanced functionality for managing their banking activities. This includes the ability to delete a bank, access and review detailed transaction records, add an operator with website panel access for distribution management, and incorporate fingerprint authentication for secure password verification. | | |
| Brief Description | The advanced feature page offers a range of powerful capabilities to facilitate efficient banking management. Users have the option to delete a bank, providing flexibility in managing their accounts and removing unnecessary entries.  The page also grants users access to comprehensive bank records, presenting transaction details such as the date, amount, and credit/debit information. This allows users to track their financial activities and gain a clear understanding of their banking history.  In terms of security, the page includes a session for managing operators with website panel access. This enables users to assign specific individuals who can log in and handle distribution-related tasks in parallel. By having designated operators, users can streamline distribution management processes.  Furthermore, the page offers a fingerprint authentication feature for added security. This means users can verify their password using their fingerprint, providing an additional layer of protection against unauthorized access.  Overall, the advanced feature page empowers users with convenient options for bank management, comprehensive record-keeping, distribution management through operators, and enhanced security measures. | | |
| Pre-Condition | Operator must have an account in an application To Access App Functionality | | |
| Post-Condition | Admin Can Access Records | | |
| Failed Condition | When you Don’t have access to Admin Account | | |
| Primary Actor | Admin | | |
| Dependency | Login Use Case | | |
| Basic Flow | Steps | Action | Response |
| 01 | The operator open the application.  And Click on Advance Feature | The system will show Advance Feature Screen. |
| 02 | The operator Can Select The Bank From List Which Can be Added in the Allowed List | The system will Update Bank in The Database and used For in Distribution Panel |
| 03 | User Will Fill The Form To Add Operator For Distribution Website Panel | The system will Add Record of Allowed Operator in Data base |
| 04 | Admin Click on Finget Print Icon To Check Password of that Screen | The system will open the Finger Print Scanner and Scan finger if Success it show the Password |
| Alternative Flow | Errors | Action | Response |
| Network Error | While Performing Any Action | Failure of Record |

Use Case Description Table 06: Advance Feature

|  |  |  |  |
| --- | --- | --- | --- |
| View Service Use Case Description Table | | | |
| Name | View Service | | |
| ID | UC-08 | | |
| Objective | This use case defines the view service process. | | |
| Brief Description | The operator views the public and private businesses, marketplaces, institutes and organizations. | | |
| Pre-Condition | Operator must have an account and open the application | | |
| Post-Condition | The services are displayed successfully. | | |
| Failed Condition | No internet connection. | | |
| Primary Actor | Operator | | |
| Dependency | Signup Use Case or Login Use Case | | |
| Basic Flow | Steps | Action | Response |
| 01 | The operator open the application. | The system will show the home screen. |
| 02 | The operator views all the services portfolios under their specific categories. | The system will show the services portfolios under their specific categories. |
| Alternative Flow | Error | Action | Response |
| 01 | The operator opens the application without internet connection. | The system will throw the message, no internet connection. |

Use Case Description Table 06: View Service

|  |  |  |  |
| --- | --- | --- | --- |
| Search Service Use Case Description Table | | | |
| Name | Search Service | | |
| ID | UC-09 | | |
| Objective | This use case defines the search service process of public and private businesses, marketplaces, institutes and organizations. | | |
| Brief Description | The operator will search the public and private businesses, marketplaces, institutes and organizations according to their categories or nearby feature. | | |
| Pre-Condition | Operator must have an account and open the application. | | |
| Post-Condition | The filtered results shown successfully. | | |
| Failed Condition | When required service is not available. | | |
| Primary Actor | Operator | | |
| Dependency | Signup Use Case or Login Use Case | | |
| Basic Flow | Steps | Action | Response |
| 01 | The operator open the application. | The system will show the home screen. |
| 02 | The operator searches the require services portfolios by write down the category, apply category filter or nearby feature. | The system will filter the required services portfolios according to the feature and show them. |
| Alternative Flow | Errors | Action | Response |
| None | None | None |

Use Case Description Table 09: Search Service

|  |  |  |  |
| --- | --- | --- | --- |
| Stocks Use Case Description Table | | | |
| Name | Stock Management | | |
| ID | UC-10 | | |
| Objective | The objective of the stock management section is to efficiently handle the inventory of all available categories, specifically RGB 500 ml, 1000 ml, 1500 ml, and other variations. The system allows users to submit stock orders to the warehouse and access comprehensive stock data, enabling them to calculate the current stock levels available. | | |
| Brief Description | The stock management section is a feature within the overall system that deals with inventory control and stock tracking. It provides a centralized platform for managing different product categories, with a particular focus on RGB bottles of varying sizes (500 ml, 1000 ml, 1500 ml, etc.). Users with the appropriate permissions can access this section to perform various stock-related tasks. | | |
| Pre-Condition | The owners must login into the admin panel. | | |
| Post-Condition | The required action is performed successfully. | | |
| Failed Condition | Internet Connectivity Failure | | |
| Primary Actor | Operator | | |
| Dependency | Advance Feature Login Use Case | | |
| Basic Flow | Steps | Action | Response |
| 01 | The owners of the application open the Distribution operator by given access from admin | The system will show the Menu Screen |
| 02 | From Menu Screen Operator Click The Stock Option | Operator will navigate to Stock Managment Screen |
| 03 | He / She Can Add Items to Stocks | System will update the stocks |
| 04 | The operator also review history of stocks | System show history of Stocks |
| Alternative Flow | Errors | Action | Response |
| None | None | None |

Use Case Description Table 10: Stocks management

|  |  |  |  |
| --- | --- | --- | --- |
| Daily Sale Use Case Description Table | | | |
| Name | Daily Sale | | |
| ID | UC-11 | | |
| Objective | Objective of the daily sales module is to oversee the management of inventory and stocks that are dispatched by drivers and subsequently returned. The primary goal is to ensure the efficient handling of these transactions, which involves tracking sales, managing stock levels, and handling product returns effectively. | | |
| Brief Description | daily sales module is an integral part of the system designed to handle the sales and inventory management process for a business. It is particularly focused on managing inventory dispatched by drivers to customers and handling any subsequent product returns. The module ensures smooth operations and accurate record-keeping for all transactions involved in the daily sales process. | | |
| Pre-Condition | The owners must login into the admin panel. | | |
| Post-Condition | The required action is performed successfully. | | |
| Failed Condition | Internet Connectivity Failure | | |
| Primary Actor | Operator | | |
| Dependency | Advance Feature Login Use Case | | |
| Basic Flow | Steps | Action | Response |
| 01 | The owners of the application open the Distribution operator by given access from admin | The system will show the Menu Screen |
| 02 | From Menu Screen Operator Click The Daily Sale | Operator will navigate to Daily Sale Managment Screen |
| 03 | He / She Can Manage Start and Close of Sale | System will update the Sales Records |
| 04 | The operator also review history of stocks | System show history of Sales |
| Alternative Flow | Errors | Action | Response |
| None | None | None |

Use Case Description Table 11: Daily Sale

|  |  |  |  |
| --- | --- | --- | --- |
| Empty Use Case Description Table | | | |
| Name | Empty | | |
| ID | UC-12 | | |
| Objective | Objective of this module is to streamline and improve the management of empty stocks that are returned to the company. It aims to provide a robust system to handle the handling, tracking, and recording of empty stocks, including pallets, that are either returned by the company's own operations or received from third-party entities. | | |
| Brief Description | Module Empty is to streamline and improve the management of empty stocks that are returned to the company. It aims to provide a robust system to handle the handling, tracking, and recording of empty stocks, including pallets, that are either returned by the company's own operations or received from third-party entities. The main goal is to maintain accurate and real-time records of the empty stocks within the warehouse, enhancing overall inventory control and ensuring efficient stock replenishment processes. | | |
| Pre-Condition | The owners must login into the admin panel. | | |
| Post-Condition | The required action is performed successfully. | | |
| Failed Condition | Internet Connectivity Failure | | |
| Primary Actor | Operator | | |
| Dependency | Advance Feature Login Use Case | | |
| Basic Flow | Steps | Action | Response |
| 01 | The owners of the application open the Distribution operator by given access from admin | The system will show the Menu Screen |
| 02 | From Menu Screen Operator Click The Empty | Operator will navigate to Empty Managment Screen |
| 03 | He / She Can Manage Empty Here | System will update the Empty Records |
| Alternative Flow | Errors | Action | Response |
| None | None | None |

Use Case Description Table 12: Empty Management

|  |  |  |  |
| --- | --- | --- | --- |
| Sales Man Recovery Case Description Table | | | |
| Name | Sales Man Recovery | | |
| ID | UC-13 | | |
| Objective | Salesperson recovery encompasses all records associated with individual salespeople, including loan recovery, closing balances, current balances, and the ability to delete records. This module also supports credit and debit functionalities. | | |
| Brief Description | The Salesperson Recovery Module is a comprehensive system that manages and tracks all crucial aspects related to individual salespeople. It maintains essential records such as loan recovery, closing balances, and current balances, providing a robust framework for effective salesperson management. This module facilitates the addition and deletion of records, ensuring an up-to-date database. Moreover, it supports credit and debit functionalities, enabling seamless financial transactions. With its user-friendly interface and data-driven capabilities, the Salesperson Recovery Module optimizes the recovery process and empowers businesses to enhance their sales team's productivity and performance. | | |
| Pre-Condition | The owners must login into the admin panel. | | |
| Post-Condition | The required action is performed successfully. | | |
| Failed Condition | Internet Connectivity Failure | | |
| Primary Actor | Operator | | |
| Dependency | Advance Feature Login Use Case | | |
| Basic Flow | Steps | Action | Response |
| 01 | The owners of the application open the Distribution operator by given access from admin | The system will show the Menu Screen |
| 02 | From Menu Screen Operator Click The Sales Man Recovery | Operator will navigate to Sales Man Recovery Screen |
| 03 | He Can add the loan and empty recovery | System will update the recovery Database |
|  | 04 |  |  |
| Alternative Flow | Errors | Action | Response |
| None | None | None |

Use Case Description Table 13: Sales Man Recovery

|  |  |  |  |
| --- | --- | --- | --- |
| Sales Man Case Description Table | | | |
| Name | Sales Man Recovery | | |
| ID | UC-13 | | |
| Objective | Objective of the Salesperson Record Book is to maintain a detailed and organized log of credit and debit transactions for individual salespeople | | |
| Brief Description | Salesperson Record Book contains a comprehensive log of credit and debit transactions, allowing us to track their history by date and effectively monitor their sales performance. | | |
| Pre-Condition | The owners must login into the admin panel. | | |
| Post-Condition | The required action is performed successfully. | | |
| Failed Condition | Internet Connectivity Failure | | |
| Primary Actor | Operator | | |
| Dependency | Advance Feature Login Use Case | | |
| Basic Flow | Steps | Action | Response |
| 01 | The owners of the application open the Distribution operator by given access from admin | The system will show the Menu Screen |
| 02 | From Menu Screen Operator Click The Sales Man | Operator will navigate to Sales Man Recovery Book |
| 03 | He Can Check the Closing Balance | System will Show History of Closing Balance |
|  | 04 |  |  |
| Alternative Flow | Errors | Action | Response |
| None | None | None |

Use Case Description Table 13: Sales Man Record Book

|  |  |  |  |
| --- | --- | --- | --- |
| Other Employee Record Book Case Description Table | | | |
| Name | Other Employee Record Book | | |
| ID | UC-14 | | |
| Objective | Similar to the Salesperson Record Book, the Other Staff Record Book contains detailed credit and debit transaction records for all staff members, enabling efficient tracking of their performance and financial activities. | | |
| Brief Description | Other Staff Record Book contains detailed credit and debit transaction records for all staff members, enabling efficient tracking of their performance and financial activities. | | |
| Pre-Condition | The owners must login into the admin panel. | | |
| Post-Condition | The required action is performed successfully. | | |
| Failed Condition | Internet Connectivity Failure | | |
| Primary Actor | Operator | | |
| Dependency | Advance Feature Login Use Case | | |
| Basic Flow | Steps | Action | Response |
| 01 | The owners of the application open the Distribution operator by given access from admin | The system will show the Menu Screen |
| 02 | From Menu Screen Operator Click The Sales Man | Operator will navigate to Sales Man Recovery Book |
| 03 | He Can Check the Closing Balance | System will Show History of Closing Balance |
|  | 04 |  |  |
| Alternative Flow | Errors | Action | Response |
| None | None | None |

Use Case Description Table 14: Other Employee Record Book

|  |  |  |  |
| --- | --- | --- | --- |
| Employee Recovery Case Description Table | | | |
| Name | Sales Man Recovery | | |
| ID | UC-15 | | |
| Objective | The Employee Recovery Book is a centralized system that consolidates all data pertaining to employee loan recoveries, offering comprehensive insights into loan recovery records categorized by months and dates, enabling efficient management and analysis. | | |
| Brief Description | The Employee Recovery Book serves as a vital repository for managing employee loan recoveries within an organization. By centralizing all relevant data, it provides a clear and organized overview of loan recovery records, arranged by months and dates. This categorization facilitates easy tracking and analysis, enabling management to monitor the progress of loan recoveries over time. The book's comprehensive insights empower decision-makers to identify trends, assess recovery performance, and devise effective strategies for optimizing the recovery process. With its user-friendly interface and up-to-date information, the Employee Recovery Book plays a crucial role in streamlining loan recovery management, ensuring financial stability, and fostering responsible financial practices within the organization. | | |
| Pre-Condition | The owners must login into the admin panel. | | |
| Post-Condition | The required action is performed successfully. | | |
| Failed Condition | Internet Connectivity Failure | | |
| Primary Actor | Operator | | |
| Dependency | Advance Feature Login Use Case | | |
| Basic Flow | Steps | Action | Response |
| 01 | The owners of the application open the Distribution operator by given access from admin | The system will show the Menu Screen |
| 02 | From Menu Screen Operator Click The Employee Recovery | Operator will navigate to Employee Recovery Screen |
| 03 | He Can add the loan recovery | System will update the recovery Database |
|  | 04 |  |  |
| Alternative Flow | Errors | Action | Response |
| None | None | None |

Use Case Description Table 15: Employee Recovery

|  |  |  |  |
| --- | --- | --- | --- |
| Daily Expenses & Closing Book Case Description Table | | | |
| Name | Daily Expenses Record Book | | |
| ID | UC-16 | | |
| Objective | Daily Expenses and Closings Module allows recording and monitoring of distribution-related expenses, including bills, vehicle expenses, and miscellaneous costs, along with expenditures for salespeople, employees, and investors. | | |
| Brief Description | Daily Expenses and Closings Module is a vital component of financial management, enabling businesses to efficiently record and manage various expenses incurred during distribution operations. From bills and vehicle expenses to miscellaneous costs, the module comprehensively captures all expenditure details. | | |
| Pre-Condition | The owners must login into the admin panel. | | |
| Post-Condition | The required action is performed successfully. | | |
| Failed Condition | Internet Connectivity Failure | | |
| Primary Actor | Operator | | |
| Dependency | Advance Feature Login Use Case | | |
| Basic Flow | Steps | Action | Response |
| 01 | The owners of the application open the Distribution operator by given access from admin | The system will show the Menu Screen |
| 02 | From Menu Screen open Daily Expenses and Closing | Operator will navigate to Daily Expenses and Closing Page |
| 03 | He Can Add Expenses here | System will Updated Expenses Records |
|  | 04 |  |  |
| Alternative Flow | Errors | Action | Response |
| None | None | None |

Use Case Description Table 14: Daily Expenses and Closing

|  |  |  |  |
| --- | --- | --- | --- |
| Vehicle & Miscellaneous Expenses Case Description Table | | | |
| Name | Vehicle & Miscellaneous Expenses | | |
| ID | UC-16 | | |
| Objective | There Are Two Seprate Options with Same Functionality : The objective of these section is to maintain a comprehensive record of all vehicle-related expenses, enabling efficient tracking of monthly expenditures and providing relevant filters for streamlined data analysis. | | |
| Brief Description | Vehicle and Miscellaneous Expenses work as a centralized system for recording and managing all expenses related to vehicles. It meticulously logs various vehicle-related costs, including fuel, maintenance, repairs, insurance, and other related expenditures. This data allows businesses to track and analyze monthly vehicle expenses. | | |
| Pre-Condition | The owners must login into the admin panel. | | |
| Post-Condition | The required action is performed successfully. | | |
| Failed Condition | Internet Connectivity Failure | | |
| Primary Actor | Operator | | |
| Dependency | Advance Feature Login Use Case | | |
| Basic Flow | Steps | Action | Response |
| 01 | application open the Distribution operator by given access from admin | The system will show the Menu Screen |
| 02 | From Menu Screen open (Vehicle or Mislns) Expeneses Section | Operator will navigate to Selected Expenses Page |
| 03 | He Can View All of Expenses as well he can add | System will Updated Expenses Records |
|  | 04 |  |  |
| Alternative Flow | Errors | Action | Response |
| None | None | None |

Use Case Description Table 16: Vehicle and Miscellaneous Expenses

|  |  |  |  |
| --- | --- | --- | --- |
| Credit / Debit Book Case Description Table | | | |
| Name | Credit / Debit Record Book | | |
| ID | UC-17 | | |
| Objective | Company Credit and Debit module facilitates the seamless addition and management of both debit transactions, including incentives and discounts, and credit transactions, such as uniform expenses and other relevant items, providing a comprehensive financial tracking system for the organization. | | |
| Brief Description | Company Credit and Debit module serves as a vital component of the organization's financial management, offering a user-friendly platform to record and monitor both debit and credit transactions. For debit transactions, it allows the easy addition of incentives, discounts, or any other deductions, providing clarity and transparency in financial dealings. On the other hand, credit transactions can be efficiently added, including expenses related to uniforms or other relevant items, ensuring accurate accounting and tracking of expenses. By maintaining a detailed log of these financial activities, the module empowers the company to optimize its budgeting, financial planning, and decision-making processes effectively. | | |
| Pre-Condition | The owners must login into the admin panel. | | |
| Post-Condition | The required action is performed successfully. | | |
| Failed Condition | Internet Connectivity Failure | | |
| Primary Actor | Operator | | |
| Dependency | Advance Feature Login Use Case | | |
| Basic Flow | Steps | Action | Response |
| 01 | The owners of the application open the Distribution operator by given access from admin | The system will show the Menu Screen |
| 02 | From Menu Screen open Credit / Debit section | Operator will navigate to Credit / Debit page |
| 03 | He Can Add Credit / Debit here | System will Updated Credit / Debit there. |
|  | 04 |  |  |
| Alternative Flow | Errors | Action | Response |
| None | None | None |

Use Case Description Table 17: Credit / Debit

|  |  |  |  |
| --- | --- | --- | --- |
| Tax / Bills Case Description Table | | | |
| Name | Tax / Bills Record Book | | |
| ID | UC-18 | | |
| Objective | The objective of the Tax and Bill Management Section is to efficiently maintain records of monthly tax payments and closing balances while providing the ability to filter data by specific months. Additionally, it aims to streamline bill management processes, ensuring accurate record-keeping for distribution-related bills received from service providers like PTCL, WAPDA, and gas companies, ultimately supporting timely payments and facilitating effective financial planning and decision-making. | | |
| Brief Description | The Tax and Bill Management Section serves as a comprehensive repository for recording monthly tax payments and closing balances. This efficient system allows for easy data filtering based on specific months, facilitating quick access to tax-related information. Additionally, the section handles the management of various distribution-related bills, meticulously maintaining records for bills received from service providers like PTCL, WAPDA, and gas companies. By integrating tax and bill management, this module streamlines financial processes, ensures timely payments, and provides accurate insights into tax liabilities and distribution expenses for effective budget planning and financial decision-making. | | |
| Pre-Condition | The owners must login into the admin panel. | | |
| Post-Condition | The required action is performed successfully. | | |
| Failed Condition | Internet Connectivity Failure | | |
| Primary Actor | Operator | | |
| Dependency | Advance Feature Login Use Case | | |
| Basic Flow | Steps | Action | Response |
| 01 | The owners of the application open the Distribution operator by given access from admin | The system will show the Menu Screen |
| 02 | From Menu Screen open Tax / Bill Section | Operator will navigate to Selected Section |
| 03 | He Can Add Check his Records there | System will Show The Records |
|  | 04 |  |  |
| Alternative Flow | Errors | Action | Response |
| None | None | None |

Use Case Description Table 18: Tax / Bills

|  |  |  |  |
| --- | --- | --- | --- |
| Rate Managment Case Description Table | | | |
| Name | Rate Management | | |
| ID | UC-19 | | |
| Objective | In the rate manager module, we can efficiently manage the prices of various stocks. For example, we can set rates for RGB, 500 ml, and 1500 ml stocks. These rates will be utilized for future calculations within the web portal. | | |
| Brief Description | The Rate Manager Module is a component within a web portal that facilitates the efficient management of prices for various stocks. Its primary function is to set and maintain rates for different stock items, enabling accurate calculations for future transactions and operations within the portal. The module allows administrators or authorized users to define rates for specific stock items, such as RGB (stock name), 500 ml (stock size), and 1500 ml (stock size).  With the Rate Manager Module, users can easily configure and update the rates for these stocks based on market conditions, costs, or other relevant factors. Once the rates are set, they are utilized by other parts of the web portal for performing calculations related to transactions, pricing, revenue forecasts, and other financial analyses.  By centralizing the rate management process, the module ensures consistency and accuracy in stock pricing across the entire system. This not only simplifies the pricing process but also reduces the likelihood of errors and discrepancies that could arise if rates were managed individually for each stock item. | | |
| Pre-Condition | The owners must login into the admin panel. | | |
| Post-Condition | The required action is performed successfully. | | |
| Failed Condition | Internet Connectivity Failure | | |
| Primary Actor | Operator | | |
| Dependency | Advance Feature Login Use Case | | |
| Basic Flow | Steps | Action | Response |
| 01 | The owners of the application open the Distribution operator by given access from admin | The system will show the Menu Screen |
| 02 | From Menu Screen Operator Click The Rate Manager  Option | Operator will navigate to Rate Managment Screen |
| 03 | He / She Can Update Rates of Stocks | System will update the stocks Rates |
| Alternative Flow | Errors | Action | Response |
| None | None | None |

Use Case Description Table 19: Stocks management

|  |  |  |  |
| --- | --- | --- | --- |
| Balance Sheet Case Description Table | | | |
| Name | Balance Sheet | | |
| ID | UC-20 | | |
| Objective | The balance sheet module allows us to generate comprehensive balance sheets that include records of both debit and credit transactions. | | |
| Brief Description | The Balance Sheet Module is a powerful tool that enables the generation of detailed and comprehensive balance sheets within our system. It serves as a central repository for recording and organizing all debit and credit transactions, presenting a holistic view of the company's financial position.  With the Balance Sheet Module, users can efficiently track and manage financial data, ensuring accuracy and transparency in the reporting process. The module's functionality allows for seamless integration with various financial systems and data sources, making it easier to compile and consolidate information. | | |
| Pre-Condition | The owners must login into the admin panel. | | |
| Post-Condition | The required action is performed successfully. | | |
| Failed Condition | Internet Connectivity Failure | | |
| Primary Actor | Operator | | |
| Dependency | Advance Feature Login Use Case | | |
| Basic Flow | Steps | Action | Response |
| 01 | The owners of the application open the Distribution operator by given access from admin | The system will show the Menu Screen |
| 02 | From Menu Screen Operator Click The Balance Sheet  Option | Operator will navigate to Balance Sheet Screen |
| 03 | He / She Can Get Details of Currently Balance in Form of Credit / Debit by Click here | Records will be Generated |
| Alternative Flow | Errors | Action | Response |
| None | None | None |

Use Case Description Table 20: Balance Sheet management

|  |  |  |  |
| --- | --- | --- | --- |
| Daily Activity Case Description Table | | | |
| Name | Daily Activity | | |
| ID | UC-21 | | |
| Objective | The daily activity section provides access to all records on a daily basis. It includes the starting time of work, a detailed table of records, and the option to print out relevant information. | | |
| Brief Description | Daily Activity Section is a key component of the system that offers users convenient access to a comprehensive record of daily activities. It serves as a centralized hub for storing and displaying essential information related to daily work routines and tasks.  At the core of the Daily Activity Section is the starting time of work, which marks the beginning of each workday. This timestamp allows users to track and monitor the exact time they commence their tasks, providing a clear reference for daily productivity analysis. | | |
| Pre-Condition | The owners must login into the admin panel. | | |
| Post-Condition | The required action is performed successfully. | | |
| Failed Condition | Internet Connectivity Failure | | |
| Primary Actor | Operator | | |
| Dependency | Advance Feature Login Use Case | | |
| Basic Flow | Steps | Action | Response |
| 01 | The owners of the application open the Distribution operator by given access from admin | The system will show the Menu Screen |
| 02 | From Menu Screen Operator Click The Daily Activity Option | Operator will navigate to Daily Activity Screen |
| 03 | He / She Can Get Details of All Records on Daily Basis | He / She Can Get Record on Daily Basis |
| Alternative Flow | Errors | Action | Response |
| None | None | None |

Use Case Description Table 21: Daily Activity

Summary

This chapter discussed the requirement specification of the application, which includes interface requirements (hardware and software interface requirements), database requirements, functional requirements and non-functional requirements. It also talks over use case diagram and description table of main use cases.