# General Notes

* Each Case Study will have a facilitator assigned to it as a Product Owner.
  + The Product Owner makes all final decisions on questions dealing with the case study.
  + The Product Owner can decide to change or modify user stories, as long as the scope is not expanded.
  + The Product Owner can invalidate / remove user stories. Such stories will not be considered for the purposes of final scoring and evaluation.
  + The Product Owner cannot add user stories after development has started.
* Unless otherwise specified, data should be persisted to a database.
* Unless otherwise stated, each story with a UI should have its own screen.

# Implementation Hints

* Use BigDecimal for currencies since using float or double may result in bugs when dividing or multiplying
* Use StringUtils from Apache Commons library to check for null/empty/blank strings.

# Case Study 1: Employment System

## General Description

The Employment System application is used by an HR Manager to track employee compensation. Different types of compensation are tracked such as monthly salary, bonuses, commission, etc.

## User Stories

### User Story 1.1: View Home Page

#### Description

As an HR Manager, I want to view the application home page when I log in so that I have easy access to the features of the application and quickly see relevant information.

The user should see the home page of the application after entering the web application’s URL.

The home page should contain the following:

1. Name of application
2. Reserved area for functions. Place holders should be placed instead of actual links for functions. Functions will be added through succeeding user stories.
3. Reserved area for default views. Nothing to be displayed for now. Views to be displayed will be determined by succeeding user stories.

#### Out-of-scope

Actual content of reserved areas is out of scope and will be specified by other stories.

#### Dependencies

None

#### Acceptance Criteria

1. Base application URL leads to home page.
2. Home page displays web application name
3. Home page has visible areas for functions and default views.

### User Story 1.2: Add Employee

#### Description

As an HR Manager, I want to add an employee so that I can manage employee information.

#### Functional Requirements

Employee profile fields should include the following:

|  |  |  |
| --- | --- | --- |
| Field | Type | Required? |
| First Name | String | Yes |
| Middle Name | String | No |
| Last Name | String | Yes |
| Birth Date | Date | Yes |
| Position | String (free form) | Yes |
|  |  |  |

In addition, the system should generate a UID for each successfully added employee.

**UI**

1. Employee entry form should have its own screen.
2. User should receive feedback that an employee was successfully added.
3. User should receive feedback if an employee was not added for the following reasons:
   1. Employee already exists – User should be alerted
   2. Missing required fields – User should be alerted as to which fields are missing
   3. Invalid field values – User should be alerted as to why a field value is wrong
4. If employee was not added for some other reason, a generic error message should be displayed

**Validation**

1. An employee cannot be entered into the system twice. Employee identity is based on first name, middle name, last name, and birth date. Employees with all three identical fields are considered to be the same employee.
2. Birth date should not be later than current date.

#### Out-of-scope

1. Legal age validation

#### Dependencies

None

#### Acceptance Criteria

1. User can add employee to the system as long as it passes validation.
2. All functional requirements are met.

### User Story 1.3: Search Employees

#### Description

As an HR Manager I want to search for employees in the system so that I can select employee to manage.

#### Functional Requirements

Search by first name, last name, position or any combination of the three. Search result should match all supplied search criteria (AND).

UI

1. One field for each search criteria.
2. One Search button.
3. One Clear button to clear search criteria
4. Executing a search should not clear search criteria
5. Search results should display employee UID plus all fields specified in Story 1.2
6. If no matching results are found, “0 results found” should be displayed

#### Out-of-scope

(Details here)

#### Dependencies

Story is dependent on Story 1.2 Add Employee unless employee entities are already in the database.

#### Acceptance Criteria

1. User should be able to search for employees
2. All other functional requirements are fulfilled

### User Story 1.4: View/Edit Employee Profile

#### Description

As an HR Manager, I want to view and edit employee profiles so that I can change employee details when needed.

#### Functional Requirements

All employee fields except UID should be editable. Validation rules for employee fields from Story 1.2 must still be followed

UI

1. Employee to be viewed/edited must be selected from search results (see Story 1.3)
2. View/Edit Employee form must be in its own screen.
3. View/Edit form fields must be pre-populated with employee information.
4. All employee fields should be visible, including UID.
5. UID should only be displayed. It should not be editable.
6. User should receive feedback if employee was successfully edited.
7. User should receive feedback if an employee was not updated for the following reasons:
   1. Identical employee found – User should be alerted if editing an employee would make it identical to an existing employee
   2. Missing required fields – User should be alerted as to which fields are missing
   3. Invalid field values – User should be alerted as to why a field value is wrong
8. If employee was not edited for some other reason, a generic error message should be displayed
9. If employee was not edited, form fields

#### Out-of-scope

1. Legal age validation

#### Dependencies

Story 1.3

#### Acceptance Criteria

1. User can select an employee to view/edit from search results.
2. User can view/edit an employee.
3. All functional requirements are fulfilled.

### User Story 1.5: Add Employee Compensation Details

#### Description

As an HR Manager I want to add monthly compensation details for an employee so that I can track an employee’s work and salary in the system.

It is possible for an employee to receive multiple types of compensation in a month. For example, salespeople receive a monthly salary and can receive commission on sales and bonuses. These should be recorded in the system. Compensation details include Compensation type (salary, bonus, commission, etc.), amount, and description.

#### Functional Requirements

Assumptions

1. All amounts are in a single home currency where the application will be used.
2. It will be up to HR Manager to define monthly compensation (before or after taxes, SSS, etc.)

Fields

|  |  |  |
| --- | --- | --- |
| Field | Type | Required? |
| Type | String | *See below* |
| Amount | Numeric | *See below* |
| Description | String | *See below* |
| Date | Date | Only year and month is important. Assume end-of-month pay period. |

Types of Compensation

1. Salary – This is basic monthly salary. Only one salary entry per employee per month can be added. It is possible for the value to be zero or negative due to deductions. Description is optional.
2. Bonus – Any bonus received beyond contractual salary. An employee can have multiple bonuses in a month. Amount must be greater than zero. Description is required.
3. Commission – Any compensation based on a percentage from closing sales. An employee can have multiple commission from multiple sales. Amount should be actual amount received, not percentage. Amount should be greater than zero. Description is required. Entry can be based on individual closed sales, or aggregated sales.
4. Allowance – This covers per-diem, over-time food or transportation allowance, etc. An employee can have more than one type of allowance. Amount should be greater than zero. Amount is assumed to have been converted to home currency. Description is required.
5. Adjustment – This covers anything not covered above. More than one entry is allowed. Amount can be any value except zero. Description is required.

Validation

1. See section above for validation rules for the different compensation types.

#### Out-of-scope

1. Compensation calculation based on employee position
2. Currency conversion for per-diem
3. Calculations of deductions (taxes, SSS, health insurance, etc.)
4. Editing of compensation details is another story and is out of scope for this story

#### Dependencies

Story 1.3

#### Acceptance Criteria

1. User can add compensation details as per functional requirements

### User Story 1.6: View Compensation History

#### Description

As an HR Manager, I want to view the monthly compensation history of an employee so that I can generate a report on how much an employee earns every month.

Only total compensation per month will be displayed for chosen employee.

#### Functional Requirements

UI Flow

1. User searches for employee
2. User selects employee
3. User enters start month/year and end month/year
4. New screen shows total compensation per month for each year
5. User can choose to return to Home Page or Step 4

UI

1. Total per month should be shown. No breakdown as this is done in another story.
2. If specified date range covers more than one year, show monthly compensation for each month in each year within specified date range. For example, do not add totals for January from all years together.
3. If no compensation details for a month can be found, that month is not displayed. However, in the case where compensation details total zero, that month should still be displayed.

Validation

1. When entering date range, user cannot enter an end date that occurs before start date.

#### Out-of-scope

Breakdown of monthly compensation is done in Story 1.7.

#### Dependencies

Story 1.3

#### Acceptance Criteria

1. Compensation report for an employee is displayed

### User Story 1.7: View Compensation Breakdown for a Month

#### Description

As an HR Manager I want to view monthly breakdown employment details for an employee so that I can see how much an employee is making from different types of income.

#### Functional Requirements

UI Flow

1. User brings up compensation history as per Story 1.6.
2. User selects displayed month from report.
3. New screen displays compensation details for that month.
4. User can go to home page or select new month to display.

UI

1. Only one month can be selected at a time for breakdown report
2. Total for the month should still be displayed in breakdown screen
3. All user fields for compensation details should be displayed. Description can be truncated if too long.

#### Out-of-scope

None

#### Dependencies

Story 1.6

#### Acceptance Criteria

1. User can bring up compensation breakdown of an employee for a specific month.

### User Story 1.8: Edit Employee Compensation Details

#### Description

As an HR Manager I want to edit monthly employment details for an employee so that I can make changes to an employee’s work and salary record.

#### Functional Requirements

UI Flow

1. User brings up compensation breakdown as per Story 1.7
2. User selects compensation to edit
3. User edits compensation details
4. Compensation breakdown screen is displayed with updated details and totals.

UI

1. User can only edit amount and description.
2. Validation rules for adding compensation in Story 1.5 are still enforced

#### Out-of-scope

1. Deletion of compensation
2. Editing of compensation type and date.

#### Dependencies

Story 1.7

#### Acceptance Criteria

1. User is able to edit compensation details.

# Case Study 2: Trucking System

## General Description

The Trucking System is used by a Dispatcher to manage trucks and to dispatch trucks on delivery jobs. Status of trucks and jobs are kept in the system.

## User Stories

### User Story 2.1: View Home Page

#### Description

As a Dispatcher, I want to view the application home page when I log in so that I have easy access to the features of the application and quickly see relevant information.

The user should see the home page of the application after entering the web application’s URL.

The home page should contain the following:

1. Name of application
2. Reserved area for functions. Place holders should be placed instead of actual links for functions. Functions will be added through succeeding user stories.
3. Reserved area for default views. Nothing to be displayed for now. Views to be displayed will be determined by succeeding user stories.

#### Out-of-scope

Actual content of reserved areas is out of scope and will be specified by other stories.

#### Dependencies

None

#### Acceptance Criteria

1. Base application URL leads to home page.
2. Home page displays web application name
3. Home page has visible areas for functions and default views.

### User Story 2.2: Add Truck

#### Description

As a Dispatcher, I want to add truck details so that I can manage my trucks.

Truck fields should include the following:

|  |  |  |
| --- | --- | --- |
| Field | Type | Required? |
| Truck ID | Numeric | Yes, System Generated |
| Model | String | Yes |
| License No. | String | Yes |
| Weight | Numeric | Yes |
| Capacity | Numeric | Yes |
| Date Acquired | Date | Yes |
|  |  |  |

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

### User Story 2.3: List Trucks

#### Description

As a Dispatcher, I want to view a list of trucks in the system so that I can have an overall view of the trucks I have.

(Details of story here)

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

### User Story 2.4: View/Edit Truck Details

#### Description

As a Dispatcher I want to view/edit truck details when I select a truck displayed in the list of trucks so that I can manage a specific truck.

(Details of story here)

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

### User Story 2.5: Create Trip Schedule

#### Description

As a Dispatcher, I want to create trip schedules for my trucks so that I can schedule my trucks for jobs.

Trip Schedule fields should include the following:

|  |  |  |
| --- | --- | --- |
| Field | Type | Required? |
| Trip ID | Numeric | Yes, System Generated |
| Truck ID | Numeric | From Truck Table |
| Driver Name | String | Yes |
| Load Weight | Numeric | Yes |
| Date/Time Started | Date/Time | Yes |
| Date/Time End | Date/Time | Yes |
| Status | Preset: 0 – Ready 1 – Loading  2 – In Transit  3 – Arrived/Unloading  4 – Unloaded  5 – Return Trip  6 – Cancelled |  |

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

### User Story 2.6: Update Trip Schedule

#### Description

As a Dispatcher, I want to update trip schedules so that can track the status of jobs.

User should be able to update all fields.

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

### User Story 2.7: Search Trip Schedules

#### Description

As a Dispatcher, I want search trip schedules so that I can see the status of trips.

Search by Truck Id, driver, date, and status.

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

# Case Study 3: Airline System

## General Description

Airline employees use the Airline System to book passengers on flights.

## User Stories

### User Story 3.1: View Home Page

#### Description

As an Airline Employee I want to view the application home page when I log in so that I have easy access to the features of the application and quickly see relevant information.

The user should see the home page of the application after entering the web application’s URL.

The home page should contain the following:

1. Name of application
2. Reserved area for functions. Place holders should be placed instead of actual links for functions. Functions will be added through succeeding user stories.
3. Reserved area for default views. Nothing to be displayed for now. Views to be displayed will be determined by succeeding user stories.

#### Out-of-scope

Actual content of reserved areas is out of scope and will be specified by other stories.

#### Dependencies

None

#### Acceptance Criteria

1. Base application URL leads to home page.
2. Home page displays web application name
3. Home page has visible areas for functions and default views.

### User Story 3.2: Add Passenger

#### Description

As a Ticket Agent, I want to add a passenger so that I can book that passenger on a flight.

Passenger fields should include the following:

|  |  |  |
| --- | --- | --- |
| Field | Type | Required? |
| Passenger ID | Numeric | Yes, System Generated |
| First Name | String | Yes |
| Middle Name | String | No |
| Last Name | String | Yes |
| Birth Date | Date | Yes |
|  |  |  |
|  |  |  |

Passengers with the same First name, Last Name, and Birth Date are considered to be the same passenger. The application should not allow duplicate passengers to be entered.

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

### User Story 3.3: Add Flight

#### Description

As a Flight Dispatcher, I want to add a flight so that the airlines can transport passengers.

Passenger fields should include the following:

|  |  |  |
| --- | --- | --- |
| Field | Type | Required? |
| Flight ID | Numeric | Yes, System Generated |
| Flight Number | String | Yes |
| Origin | String | No |
| Destination | String | Yes |
| Departure Date/Time | Date/Time | Yes |
| Arrival Date/Time | Date/Time | Yes |
| Status | 0 – Cancelled  1 – Scheduled  2 – Gate Open  3 – Boarding  4 – Gate Closed  5 – On Time  6 – Delayed  7 – Early  8 – Arrived | Yes |

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

### User Story 3.4: Search Flights

#### Description

As an Airline Employee, I want search flights so that I can check on the status of certain flights.

Search by Flight ID, Flight Number, Origin, Destination, Departure/Arrival Date (time optional).

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

### User Story 3.5: Book Passenger on Flight

#### Description

As a Ticket Officer, I want to book a passenger on a flight so that I can generate revenue.

(Details of story here)

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

### User Story 3.6: Update Flight Details

#### Description

As a Flight Dispatcher, I want update flight details so that others can see the latest status of a flight.

(Details of story here)

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

### User Story 3.7: Show Flight Manifest

#### Description

As a Flight Purser I want to see the flight manifest so that I know who the people are on board my flight.

(Details of story here)

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

# Case Study 4: Online Shopping System

## General Description

The Online Shopping System is an Ecommerce application that allows shoppers to purchase items online.

## User Stories

### User Story 4.1: View Home Page

#### Description

As a Shopper, I want to view the application home page when I log in so that I have easy access to the features of the application and quickly see relevant information.

The user should see the home page of the application after entering the web application’s URL.

The home page should contain the following:

1. Name of application
2. Reserved area for functions. Place holders should be placed instead of actual links for functions. Functions will be added through succeeding user stories.
3. Reserved area for default views. Nothing to be displayed for now. Views to be displayed will be determined by succeeding user stories.

#### Out-of-scope

Actual content of reserved areas is out of scope and will be specified by other stories.

#### Dependencies

None

#### Acceptance Criteria

1. Base application URL leads to home page.
2. Home page displays web application name
3. Home page has visible areas for functions and default views.

### User Story 4.2: View Products

#### Description

As a Shopper, I want to browse available products so that I can choose which ones to buy.

Products are preloaded into the system. Products must at least have an item name, item description, and price.

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

### User Story 4.3: Add Payment Method

#### Description

As a Shopper, I want to add a payment method so that I don’t have to reenter payment method details for every purchase.

Payment Method fields should include the following:

|  |  |  |
| --- | --- | --- |
| Field | Type | Required? |
| Payment Method ID | Numeric | Yes, System Generated |
| Type | Card, PayPal, CoD | Yes |
| Card Number | String | Yes, if Card |
| Expiration Date | String | Yes, if Card |
| Short Name | String | Yes |
| PayPal ID | String | Yes, if PayPal |
|  |  |  |

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

### User Story 4.4: Remove Payment Method

#### Description

As a Shopper, I want to delete a payment method so that a payment method can’t be used for shopping.

(Details of story here)

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

### User Story 4.5: Add Products to Shopping Cart

#### Description

As a Shopper, I want to add products to the shopping cart so that I can buy products on checkout.

(Details of story here)

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

### User Story 4.6: Checkout Shopping Cart

#### Description

As a Shopper, I want to checkout a shopping cart so that I can complete my purchase.

Shopper should be able to choose payment method on checkout. Order should be saved to database on checkout.

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

### User Story 4.7: List Pending Orders

#### Description

As a Shopper, I want to view my pending orders so that I will know when my purchases will be delivered.

(Details of story here)

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

### User Story 4.8: View/Modify Contents of Shopping Cart

#### Description

As a Shopper, I want to modify shopping cart contents so that I can change what I want to buy.

(Details of story here)

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

# Case Study 5: Credit Card System

## General Description

(Details here)

## User Stories

### User Story 5.1: View Home Page

#### Description

As a User I want to view the application home page when I log in so that I have easy access to the features of the application and quickly see relevant information.

The user should see the home page of the application after entering the web application’s URL.

The home page should contain the following:

1. Name of application
2. Reserved area for functions. Place holders should be placed instead of actual links for functions. Functions will be added through succeeding user stories.
3. Reserved area for default views. Nothing to be displayed for now. Views to be displayed will be determined by succeeding user stories.

#### Out-of-scope

Actual content of reserved areas is out of scope and will be specified by other stories.

#### Dependencies

None

#### Acceptance Criteria

1. Base application URL leads to home page.
2. Home page displays web application name
3. Home page has visible areas for functions and default views.

### User Story 5.2: Modify User Profile

#### Description

As a Credit Card User, I want to update my user profile so that I can update my billing details.

User profile fields should include the following:

|  |  |  |
| --- | --- | --- |
| Field | Type | Required? |
| First Name | String | Yes |
| Middle Name | String | No |
| Last Name | String | Yes |
| Birth Date | Date | Yes |
| Home Address | String | Yes |
| Office Address | String | No |
| Phone Number | String | Yes |
| Monthly Income | Numeric | Yes |

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

### User Story 5.3: Add Supplementary User

#### Description

As a Credit Card User, I want to add a person as a supplementary user so that I can apply for a supplementary card.

User profile fields should include the following:

|  |  |  |
| --- | --- | --- |
| Field | Type | Required? |
| ID | Numeric | System Generated |
| First Name | String | Yes |
| Middle Name | String | No |
| Last Name | String | Yes |
| Birth Date | Date | Yes |
| Home Address | String | Yes |
| Office Address | String | No |
| Phone Number | String | Yes |
| Relationship | String | Yes |

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

### User Story 5.4: Apply for a Credit Card

#### Description

As a Credit Card User, I want to apply for a credit card so that I can get a credit card.

Credit card types are Bronze, Silver, Gold, Platinum with initial credit limits of P25K, P50K, P100K, P250K respectively. User already has Bronze Card. User gets approved if credit limit of card applied for is less than or equal monthly salary.

Credit Card fields should include the following:

|  |  |  |
| --- | --- | --- |
| Field | Type | Required? |
| ID | Numeric | System Generated |
| Card Number | String (####-####-####-####) | System Generated |
| Type | Bronze, Silver, Gold, Platinum | Yes |
| Name on Card | String | Yes |
| Supplementary | Boolean | Yes |
| Parent Card ID | Numeric | Yes if Supplementary |
| Billing Address | String | Yes if parent card |
| Credit Limit | Numeric | Yes |
| Expiration Date | Date | Yes |
| Supplementary User ID | Numeric | From Supplementary User table if Supplementary |
| Active | Boolean | Yes |

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

### User Story 5.5: Apply for a Supplementary Credit Card

#### Description

As a Credit Card User, I want to apply for a supplementary credit card for a registered supplementary user so that I can give credit cards to my dependents.

User can specify lower sub limit. Card automatically approved up to a maximum of 4 supplementary cards per credit card.

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

### User Story 5.6: List Credit Cards

#### Description

As a Credit Card User, I want to see a list of my existing credit cards so that I can manage my expenses and credit lines.

Cards should show balance and credit limit. Supplementary cards not included. Balance should be based on transactions.

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

### User Story 5.7: View/Update Credit Card Details

#### Description

As a Credit Card User, I want to view and update my credit card details so that I can manage my card.

Applies to parent and supplementary cards. User can only change billing address, sub limit for supplementary card, active/inactive. Deactivation of parent card deactivates all supplementary cards.

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

### User Story 5.8: View Transactions for Credit Card

#### Description

As a Credit Card User, I want to view all transaction for my credit card so that I can manage my expenses.

(Details of story here)

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

# Case Study 6: Online Banking

## General Description

(Details here)

## User Stories

### User Story 6.1: View Home Page

#### Description

As a Depositor I want to view the application home page when I log in so that I have easy access to the features of the application and quickly see relevant information.

The user should see the home page of the application after entering the web application’s URL.

The home page should contain the following:

1. Name of application
2. Reserved area for functions. Place holders should be placed instead of actual links for functions. Functions will be added through succeeding user stories.
3. Reserved area for default views. Nothing to be displayed for now. Views to be displayed will be determined by succeeding user stories.

#### Out-of-scope

Actual content of reserved areas is out of scope and will be specified by other stories.

#### Dependencies

None

#### Acceptance Criteria

1. Base application URL leads to home page.
2. Home page displays web application name
3. Home page has visible areas for functions and default views.

### User Story 6.2: List Accounts on Home Page

#### Description

As a Depositor, I want to see an overview of my accounts so that I can quickly see my accounts.

Accounts should show Account number, short name, type (Savings, Checking), and current balance. Current balance should be based on existing transactions.

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

### User Story 6.3: Open an Account

#### Description

As a Depositor, I want to open an account so that I can deposit money.

Transaction should be recorded for both accounts.

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

### User Story 6.4: Modify Account Details

#### Description

As a Depositor I want to modify account short name so that I can manage my accounts.

(Details of story here)

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

### User Story 6.5: Transfer Money Between Accounts

#### Description

As a Depositor, I want to transfer money between my accounts so that I can manage my account balances.

Transactions should be generated for the money transfer.

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

### User Story 6.6: Add Merchant

#### Description

As a Depositor, I want to add a merchant so that I can pay my bills online.

(Details of story here)

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

### User Story 6.7: Pay Merchant

#### Description

As a Depositor, I want to pay a merchant from my account balance so that I can pay my bills online.

(Details of story here)

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

### User Story 6.8: List Transactions for an Account

#### Description

As a Depositor, I want to see all transactions for an account so that I can see account activity.

(Details of story here)

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

# Case Study 7: College Enrollment System

## General Description

(Details here)

## User Stories

### User Story 7.1: View Home Page

#### Description

As a Registrar I want to view the application home page when I log in so that I have easy access to the features of the application and quickly see relevant information.

The user should see the home page of the application after entering the web application’s URL.

The home page should contain the following:

1. Name of application
2. Reserved area for functions. Place holders should be placed instead of actual links for functions. Functions will be added through succeeding user stories.
3. Reserved area for default views. Nothing to be displayed for now. Views to be displayed will be determined by succeeding user stories.

#### Out-of-scope

Actual content of reserved areas is out of scope and will be specified by other stories.

#### Dependencies

None

#### Acceptance Criteria

1. Base application URL leads to home page.
2. Home page displays web application name
3. Home page has visible areas for functions and default views.

### User Story 7.2: Add Student

#### Description

As a Registrar I want to save student information so that I can enroll students.

Student profile fields should include the following:

|  |  |  |
| --- | --- | --- |
| Field | Type | Required? |
| Student ID | Numeric | Yes, System Generated |
| First Name | String | Yes |
| Middle Name | String | No |
| Last Name | String | Yes |
| Birth Date | Date | Yes |
| Course | String | Yes |
|  |  |  |

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

### User Story 7.3: List Students

#### Description

As a Registrar I want to see a list of students enrolled so that I can manage their enrollments.

(Details of story here)

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

### User Story 7.4: Search for Classes

#### Description

As a Registrar I want to search for classes so that I can choose which classes to enroll students in.

Class fields should include the following:

|  |  |  |
| --- | --- | --- |
| Field | Type | Required? |
| Class ID | Numeric | Yes, System Generated |
| Course Code | String | Yes |
| Course Name | String | Yes |
| Schedule | String | Yes |
| Instructor | String | Yes |
| Location | String | Yes |
| Units | Numeric | Yes |
| Class Size | Numeric | Yes |
|  |  |  |

Searchable fields are Course Code, Course name, Schedule, Instructor

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

### User Story 7.5: View Class Details

#### Description

As a Registrar I want to view class details so that I can decide on enrolling students for that class.

(Details of story here)

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

### User Story 7.6: Enroll Students in a Class

#### Description

As a Registrar I want to enroll a student in a class so that students can fulfill their course requirements.

Students can only have a maximum of 24 units enrolled. A student cannot be enrolled in a full class. A student cannot be enrolled in more than one class of the same course Id.

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

### User Story 7.7: List Students Enrolled in a Class

#### Description

As a Registrar I want see who are enrolled in a class so that I can manage class size and student mix.

(Details of story here)

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

### User Story 7.8: Unenroll Student from a Class

#### Description

As a Registrar I want to unenroll a student from a class so that I can move that student to another class.

(Details of story here)

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

# Case Study 8: Hotel Booking System

## General Description

(Details here)

## User Stories

### User Story 8.1: View Home Page

#### Description

As a Manager I want to view the application home page when I log in so that I have easy access to the features of the application and quickly see relevant information.

The user should see the home page of the application after entering the web application’s URL.

The home page should contain the following:

1. Name of application
2. Reserved area for functions. Place holders should be placed instead of actual links for functions. Functions will be added through succeeding user stories.
3. Reserved area for default views. Nothing to be displayed for now. Views to be displayed will be determined by succeeding user stories.

#### Out-of-scope

Actual content of reserved areas is out of scope and will be specified by other stories.

#### Dependencies

None

#### Acceptance Criteria

1. Base application URL leads to home page.
2. Home page displays web application name
3. Home page has visible areas for functions and default views.

### User Story 8.2: Add Guest

#### Description

As a Manager I want to add guest details to the system so that I can improve guest relations.

Guest profile fields should include the following:

|  |  |  |
| --- | --- | --- |
| Field | Type | Required? |
| Guest ID | Numeric | Yes, System Generated |
| First Name | String | Yes |
| Middle Name | String | No |
| Last Name | String | Yes |
| Birth Date | Date | Yes |
|  |  |  |
|  |  |  |

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

### User Story 8.3: Search Guests

#### Description

As a Manager I want to search guests so that can check on the guest’s stay at the hotel.

(Details of story here)

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

### User Story 8.4: Search Rooms

#### Description

As a Manager want to search rooms based on type so that I can check for available rooms.

Room fields should include the following:

|  |  |  |
| --- | --- | --- |
| Field | Type | Required? |
| Room ID | Numeric (or String) | Yes, System Generated |
| Type | String | Yes |
| Price per Night | BigDecimal | Yes |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

### User Story 8.5: Book a Room

#### Description

As a Manager I want to book guests to a room so that the hotel can generate revenue.

Booking Details should include the following:

|  |  |  |
| --- | --- | --- |
| Field | Type | Required? |
| Booking ID | Numeric | Yes, System Generated |
| Guests | List | From Guest Table |
| Room Id | Numeric or String | From Room Table |
| Check-in Date | Date | Yes |
| Check-out Date | Date | Yes |
| Total Price | BigDecimal (Calculated) | Yes |
|  |  |  |
|  |  |  |

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

### User Story 8.6: Update Booking

#### Description

As a Manager I want to update a guest’s booking so that I can accommodate changes in a guest’s stay.

Update room and date(s) of stay.

#### Out-of-scope

Adding/removing guests

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

### User Story 8.7: Search Room Availability by Date

#### Description

As a Manager I want to search for room availability by date so that I can book rooms in advance.

Search for available rooms based on check-in and check-out dates.

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

# Case Study 9: Bill Consolidation System

## General Description

(Details here)

## User Stories

### User Story 9.1: View Home Page

#### Description

As a Bill Payer I want to view the application home page when I log in so that I have easy access to the features of the application and quickly see relevant information.

The user should see the home page of the application after entering the web application’s URL.

The home page should contain the following:

1. Name of application
2. Reserved area for functions. Place holders should be placed instead of actual links for functions. Functions will be added through succeeding user stories.
3. Reserved area for default views. Nothing to be displayed for now. Views to be displayed will be determined by succeeding user stories.

#### Out-of-scope

Actual content of reserved areas is out of scope and will be specified by other stories.

#### Dependencies

None

#### Acceptance Criteria

1. Base application URL leads to home page.
2. Home page displays web application name
3. Home page has visible areas for functions and default views.

### User Story 9.2: Add a Merchant

#### Description

As a Bill Payer I want a merchant payee so that I can pay bills to that merchant.

(Details of story here)

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

### User Story 9.3: Add a Bill

#### Description

As a Bill Payer I want to add a bill so that I can pay the bill online.

Bill fields should include the following:

|  |  |  |
| --- | --- | --- |
| Field | Type | Required? |
| Bill ID | Numeric | Yes, System Generated |
| Merchant | String | Yes from merchant table |
| Amount | BigDecimal | Yes |
| Serial no. | String | Yes |
| Bill Date | Date | Yes |
| Date Due | Date | Yes |
|  |  |  |

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

### User Story 9.4: Show Total Amount Due for Current Month

#### Description

As a Bill payer I want to see the total amount due of all the bills for the current month so that I know how much to pay for the month.

(Details of story here)

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

### User Story 9.5: View Merchant

#### Description

As a Bill Payer I want to view merchant details so that I can manage that merchant.

(Details of story here)

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

### User Story 9.6: View Bills from Merchant

#### Description

As a Bill Payer I want to see all bills from a merchant so that I can manage my bills from that merchant.

(Details of story here)

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

### User Story 9.7: View History of Monthly Total Amount Due

#### Description

As a Bill Payer I want to see bill totals for past months so that I can see trends in monthly expenses.

(Details of story here)

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

# Case Study 10: Food Delivery System

## General Description

The application is to be used by a restaurant owner, manager, and or operator. The user receives calls from customers placing orders and enters required information into the system.

## User Stories

### User Story 10.1: View Home Page

#### Description

As a Restaurateur I want to view the application home page when I log in so that I have easy access to the features of the application and quickly see relevant information.

The user should see the home page of the application after entering the web application’s URL.

The home page should contain the following:

1. Name of application
2. Reserved area for functions. Place holders should be placed instead of actual links for functions. Functions will be added through succeeding user stories.
3. Reserved area for default views. Nothing to be displayed for now. Views to be displayed will be determined by succeeding user stories.

#### Out-of-scope

Actual content of reserved areas is out of scope and will be specified by other stories.

#### Dependencies

None

#### Acceptance Criteria

1. Base application URL leads to home page.
2. Home page displays web application name
3. Home page has visible areas for functions and default views.

### User Story 10.2: Add Food Item

#### Description

As a Restaurateur I want to add food menu items so that I can sell that food item to customers.

#### Functional Requirements

UI Flow

1. User clicks on “Add Food Item”
2. New screen displays form for adding food item
3. User enters food item details and submits form
4. Once user successfully adds an item, form should be reset so user can add another item.

Food item fields should include the following:

|  |  |  |
| --- | --- | --- |
| Field | Type | Required? |
| Food Item Name | String | Yes |
| Unit Price | Non-zero numeric | Yes |
| InStock | Boolean | Yes |

Other requirements

1. User cannot add identical food items. All food items should have different names.
2. If user fails to add item due to validation error, application should show specific error.
3. User can go to home screen at any time during the process to exit the feature.

#### Out-of-scope

None

#### Dependencies

None

#### Acceptance Criteria

1. User is able to add food items

### User Story 10.3: List Food Items

#### Description

As a Restaurateur I want to list my food items so that I can manage my menu.

#### Functional Requirements

UI

1. Food items should be immediately visible from the home page.
2. User should be able to toggle visibility of In-stock/out-of-stock/all-items

#### Out-of-scope

None

#### Dependencies

None. Food items can be preloaded for purposes of testing

#### Acceptance Criteria

1. User should see food items entered in the system

### User Story 10.4: Update Food Items

#### Description

As a Restaurateur I want to update food items so that I can modify prices and availability.

#### Functional Requirements

UI Flow

1. From list of foods in Story 10.3, user clicks on a food item to edit.
2. New screen appears with update form prepopulated with food item details.
3. User edits food details and submits.
4. On failed validation, application prompts user on errors. Form is not reset and should still retain last entered field values.
5. On successful submission, user is sent back to home screen.

Validation

1. Field requirements from Story 10.2 still apply
2. Food Item Name cannot match any other food item name.

#### Out-of-scope

None

#### Dependencies

Story 10.3

#### Acceptance Criteria

1. User should be able to edit existing food items.

### User Story 10.5: Create an Order

#### Description

As a Restaurateur I want to enter an order so that I can deliver food items.

Order fields should include the following:

|  |  |  |
| --- | --- | --- |
| Field | Type | Required? |
| Order ID | Numeric | Yes, System Generated |
| Customer Name | String | Yes |
| Address | String | Yes |
| Contact Number | String | Yes |
| Order Items | List | Yes |
| Total | BigDecimal | Calculated |
| Status | 0 – Received  1 – Kitchen  2 – In Transit  3 – Delivered  4 – Cancelled |  |

Order Item fields should include the following:

|  |  |  |
| --- | --- | --- |
| Field | Type | Required? |
| Unit price | Numeric | Copied from Food Item table |
| Qty | Positive numeric | Yes |
| Total Item Price | Numeric | Calculated Unit Price \* Qty |
|  |  |  |
|  |  |  |

#### Out-of-scope

Tax calculations

#### Dependencies

None

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

### User Story 10.6: List Orders

#### Description

As a Restaurateur I want to see orders for the day so that I can track orders.

(Details of story here)

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

### User Story 10.7: View/Update Order

#### Description

As a Restaurateur I want view and update an order so that I can make changes to the status of an order.

Should be able to change Customer name, address, contact number, status.

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

# Case Study 11: Loyalty Rewards System

## General Description

(Details here)

## User Stories

### User Story 11.1: View Home Page

#### Description

As a PoS Cashier I want to view the application home page when I log in so that I have easy access to the features of the application and quickly see relevant information.

The user should see the home page of the application after entering the web application’s URL.

The home page should contain the following:

1. Name of application
2. Reserved area for functions. Place holders should be placed instead of actual links for functions. Functions will be added through succeeding user stories.
3. Reserved area for default views. Nothing to be displayed for now. Views to be displayed will be determined by succeeding user stories.

#### Out-of-scope

Actual content of reserved areas is out of scope and will be specified by other stories.

#### Dependencies

None

#### Acceptance Criteria

1. Base application URL leads to home page.
2. Home page displays web application name
3. Home page has visible areas for functions and default views.

### User Story 11.2: Add a Member

#### Description

As a PoS Cashier I want to add new members so that I can increase sales.

Customer profile fields should include the following:

|  |  |  |
| --- | --- | --- |
| Field | Type | Required? |
| Customer ID aka card number | Numeric | Yes, System Generated |
| First Name | String | Yes |
| Middle Name | String | No |
| Last Name | String | Yes |
| Birth Date | Date | Yes |
| Card expiration date | Date | Yes |
|  |  |  |

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

### User Story 11.3: Find Members

#### Description

As a PoS Cashier I want to search for members so that I can manage them.

Search by first and/or last name.

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

### User Story 11.4: View a Member

#### Description

As a PoS Cashier I want to view member details so that I can manage that member.

(Details of story here)

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

### User Story 11.5: Add Reward Points Transaction

#### Description

As a PoS Cashier I want record reward points transactions so that members can spend or earn points.

Transaction fields should include the following:

|  |  |  |
| --- | --- | --- |
| Field | Type | Required? |
| Transaction ID | Numeric | Yes, System Generated |
| Transaction Description | String | Yes |
| Amount | Numeric | Yes |
| Transaction Date | Date | Yes |
|  |  |  |
|  |  |  |
|  |  |  |

Validation:

Cannot spend more points than current balance.

(Details of story here)

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

### User Story 11.6: Show Rewards Points Transactions and Points Balance

#### Description

As a PoS Cashier I want to see member transactions and points balance so that I can inform a member about his points.

(Details of story here)

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

### User Story 11.7: Edit Member Details

#### Description

As a PoS Cashier I want edit member details so that I can keep member details current.

(Details of story here)

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

# Case Study 12: Library System

## General Description

(Details here)

## User Stories

### User Story 12.1: View Home Page

#### Description

As a Librarian I want to view the application home page when I log in so that I have easy access to the features of the application and quickly see relevant information.

The user should see the home page of the application after entering the web application’s URL.

The home page should contain the following:

1. Name of application
2. Reserved area for functions. Place holders should be placed instead of actual links for functions. Functions will be added through succeeding user stories.
3. Reserved area for default views. Nothing to be displayed for now. Views to be displayed will be determined by succeeding user stories.

#### Out-of-scope

Actual content of reserved areas is out of scope and will be specified by other stories.

#### Dependencies

None

#### Acceptance Criteria

1. Base application URL leads to home page.
2. Home page displays web application name
3. Home page has visible areas for functions and default views.

### User Story 12.2: Add a Book

#### Description

As a Librarian I want to add a book to the system so that I can track it.

Book fields should include the following:

|  |  |  |
| --- | --- | --- |
| Field | Type | Required? |
| Book ID | Numeric | Yes, System Generated |
| Title | String | Yes |
| Author(s) | String, Comma delimited | Yes |
| ISBN | String | Yes |
| Subject | String, Comma delimited | Yes |
| Date published | Date | Yes |
| Date Acquired | Date | Yes |
| Available | Boolean | Yes |

(Details of story here)

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

### User Story 12.3: Search for Books

#### Description

As a Librarian I want to search for books so that I can find the book I need.

Search by Title, Author, Subject, ISBN

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

### User Story 12.4: View/Edit Book Details

#### Description

As a Librarian I want to edit book details so that I can track book status.

(Details of story here)

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

### User Story 12.5: Lend a Book

#### Description

As a Librarian I want to record book lending so that I have a record on who borrowed a book and when.

Book Lend fields should include the following:

|  |  |  |
| --- | --- | --- |
| Field | Type | Required? |
| Book Lend ID | Numeric | Yes, System Generated |
| Book Id | Numeric | From Book table |
| Borrower Name | String | Yes |
| Date Borrowed | Date | Yes |
| Date Due | Date | Yes |
| Date Returned | Date | No |

Borrowing a book should set book’s Available flag to false.

Validation:

Cannot lend a book if Available flag is set to false.

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

### User Story 12.6: Return a Book

#### Description

As a Librarian I want to record a book being returned so that I can lend out the book again.

Returning a book should set Date Returned to current date and Available flag to true.

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

### User Story 12.7: View Book Lending History

#### Description

As a Librarian I want to see all the times a book has been borrowed so that I can track a book.

(Details of story here)

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

# Case Study 13: Expense Tracking System

## General Description

The system is part of a personal financial management program offered by a financial institution client. The system is to be used by the client’s customers to track their spending habits. Customers are expected to make monthly budgets, track their expenses, and check if they have exceeded their budgets.

## User Stories

### User Story 13.1: View Home Page

#### Description

As a User I want to view the application home page when I log in so that I have easy access to the features of the application and quickly see relevant information.

The user should see the home page of the application after entering the web application’s URL.

The home page should contain the following:

1. Name of application
2. Reserved area for functions. Place holders should be placed instead of actual links for functions. Functions will be added through succeeding user stories.
3. Reserved area for default views. Nothing to be displayed for now. Views to be displayed will be determined by succeeding user stories.

#### Out-of-scope

Actual content of reserved areas is out of scope and will be specified by other stories.

#### Dependencies

None

#### Acceptance Criteria

1. Base application URL leads to home page.
2. Home page displays web application name
3. Home page has visible areas for functions and default views.

### User Story 13.2: List Expense Categories

#### Description

As a User I want to see expense categories so that I can categorize my expenses.

#### Functional Specifications

Starting expense categories are Utilities, Food, Entertainment. These categories should already be in the system.

From the home page, the user should see an option for “Category Management”. Click on this should display a screen with all existing expense categories.

#### Out-of-scope

None

#### Dependencies

None

#### Acceptance Criteria

1. User should be able to see default categories.

### User Story 13.3: Add Expense Category

#### Description

As a User I want to add an expense category so that manage my budget better.

#### Functional Requirements

UI Flow

1. From “Category Management” screen in Story 13.2, there should be a text field and a button to add a new expense category. User enters a new category name and submits.
2. If user successfully adds a new category, Category Management screen should immediately refresh and show updated list of categories, otherwise, an error message should appear showing the specific error.

Validation

1. A category cannot be added if it already exists. Category name checking should be case-insensitive.

#### Out-of-scope

None

#### Dependencies

Story 13.4

#### Acceptance Criteria

1. User should be able to add a category through the category management screen

### User Story 13.4: Set Budget for a Category by Month

#### Description

As a User I want to be able to set the monthly budget for a category so that I can budget my money.

The user should be able to set the budget for any category for current or future months. The budget amount is not a recurring value, meaning that each month can have a different value. For example, budget for food might be higher for December or budget for utilities might be higher for summer months.

#### Functional Requirement

UI Flow

1. User goes to separate budget management screen.
2. User selects expense category
3. User enters month and year
4. User enters budget amount
5. User submits budget and is prompted if successful.

UI Requirements

1. User should be able to select expense category without having to type category name.
2. Month and year should default to current date.
3. If budget already exists, user should be asked if they want to update existing budget amount.

Validation

1. Month and year cannot be earlier than current month. It should not be possible to create or update budgets for past months.
2. Budget amount should be greater than zero.

#### Out-of-scope

None

#### Dependencies

Story 13.2

#### Acceptance Criteria

1. User is be able to create new budget for a month.
2. User can update existing budget amounts for current or future months.

### User Story 13.5: Add Expense

#### Description

As a User I want to add an expense transaction under a budget category so that I can track my expenses under that category.

#### Functional Requirements

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

### User Story 13.6: Show Budget Report for Current Month

#### Description

As a User I want to see a budget report for the current month so that I can see how well I’m budgeting my money.

(Details of story here)

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

### User Story 13.7: Show Budget Report for a Category

#### Description

As a User I want to see all my expenses for an expense category so that I can see how much I’m spending for that category.

(Details of story here)

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

### User Story 13.8: Show Category Expenses for a Given Month/Year

#### Description

As a User I want to see total balance for each category for a selected month/year so that I can see how much I’ve spent in the past.

(Details of story here)

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

# Case Study 14: Car Rental System

## General Description

(Details here)

## User Stories

User Story 14.1: View Home Page

*Description*

*As a Manager I want to view the application home page when I log in so that I have easy access to the features of the application and quickly see relevant information.*

The user should see the home page of the application after entering the web application’s URL.

The home page should contain the following:

1. Name of application
2. Reserved area for functions. Place holders should be placed instead of actual links for functions. Functions will be added through succeeding user stories.
3. Reserved area for default views. Nothing to be displayed for now. Views to be displayed will be determined by succeeding user stories.

*Out-of-scope*

Actual content of reserved areas is out of scope and will be specified by other stories.

*Dependencies*

None

*Acceptance Criteria*

1. Base application URL leads to home page.
2. Home page displays web application name
3. Home page has visible areas for functions and default views.

### User Story 14.2: Add a Car

#### Description

As a Manager I want add a car so that I can rent it out to customers.

Car fields should include the following:

|  |  |  |
| --- | --- | --- |
| Field | Type | Required? |
| Car ID | Numeric | Yes, System Generated |
| Model | String | Yes |
| Year | Numeric | Yes |
| Color | String | Yes |
| License Plate Number | String | Yes |
| Date Acquired | Date | Yes |
| Seating Capacity | Numeric | Yes |

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

### User Story 14.3: Search Cars

#### Description

As a Manger I want to search existing cars so that I can find one to rent out.

Search car by id, model and/or seating capacity.

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

### User Story 14.4: View/Edit Car Details

#### Description

As a Manager I want to edit car details so that I can update status of my cars.

(Details of story here)

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

### User Story 14.5: Add Rental

#### Description

As a Manager I want to enter car rentals so that I can keep track of my cars.

Rental fields should include the following:

|  |  |  |
| --- | --- | --- |
| Field | Type | Required? |
| Rental ID | Numeric | Yes, System Generated |
| Customer Name | String | Yes |
| Date Rented | Date | Yes |
| Date Due | Date | Yes |
| Date Returned | Date | No |
| Car ID | Numeric | From Car Table |
|  |  |  |

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

### User Story 14.6: Search Rentals

#### Description

As a Manager I want to search rentals so I can check on car status.

Search by car ID, dates, and which cars are overdue.

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

### User Story 14.7: Update Rental

#### Description

As a Manager I want to update rentals so that I can record changes in car rental status.

(Details of story here)

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

# Case Study 15: Developer Skills System

## General Description

(Details here)

## User Stories

### User Story 15.1: View Home Page

#### Description

As an HR Manager I want to view the application home page when I log in so that I have easy access to the features of the application and quickly see relevant information.

The user should see the home page of the application after entering the web application’s URL.

The home page should contain the following:

1. Name of application
2. Reserved area for functions. Place holders should be placed instead of actual links for functions. Functions will be added through succeeding user stories.
3. Reserved area for default views. Nothing to be displayed for now. Views to be displayed will be determined by succeeding user stories.

#### Out-of-scope

Actual content of reserved areas is out of scope and will be specified by other stories.

#### Dependencies

None

#### Acceptance Criteria

1. Base application URL leads to home page.
2. Home page displays web application name
3. Home page has visible areas for functions and default views.

### User Story 15.2: Add Skill

#### Description

As an HR Manager I want to add a skill so that I can search people with that skill later.

(Details of story here)

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

### User Story 15.3: Add Developer

#### Description

As an HR Manager I want to add a developer so that I can track his skill set.

Developer profile fields should include the following:

|  |  |  |
| --- | --- | --- |
| Field | Type | Required? |
| Developer ID | Numeric | Yes, System Generated |
| First Name | String | Yes |
| Middle Name | String | No |
| Last Name | String | Yes |
| Birth Date | Date | Yes |
| Position | String | Yes |
|  |  |  |

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

### User Story 15.4: Add Skill Assessment

#### Description

As an HR Manager I want to add skills and corresponding skill level to a developer so that I can find developers with that skill.

Skill Assessment fields should include the following:

|  |  |  |
| --- | --- | --- |
| Field | Type | Required? |
| Skill Name | From Skills | Yes |
| Months Experience | Numeric | Yes |
| Skill Level | Numeric Preset: 0 – None 1 – Basic 2 – Foundation  3 – Experienced  4 – Expert  5 – Thought Leader | Yes |
| Developer ID | Numeric | Yes from Developer table |
|  |  |  |
|  |  |  |
|  |  |  |

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

### User Story 15.5: Search Developers

#### Description

As an HR Manager I want to search for developers with specific skills so that I can fulfill project talent requirements.

Search by skill, skill level, first name, last name, months of experience. This is an AND search for all search parameters supplied by the user.

#### Out-of-scope

Wildcards and partial matching.

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

### User Story 15.6: Update Skill Assessment

#### Description

As an HR Manager I want update skill assessments so that I can keep developer skills current.

(Details of story here)

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

### User Story 15.7: Generate Skill Capability Report

#### Description

As a HR Manager I want to generate a report on skill capability so that I can see an overview of the company’s talent pool.

Sample Report:

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Skill** | **0:Trained** | **1:Novice** | **2:Proficient** | **3:Advanced** | **4:Expert** | **5:Thought Leader** | **Total** |
| JavaEE | 10 | 20 | 35 | 20 | 10 | 2 | 97 |
| Python | 10 | 5 | 5 | 3 | 2 | 0 | 25 |
| ReactJS | 10 | 10 | 5 | 5 | 3 | 0 | 33 |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

# Case Study ##: Application Name

## General Description

(Details here)

## User Stories

### User Story #.1: View Home Page

#### Description

As a (role) I want to view the application home page when I log in so that I have easy access to the features of the application and quickly see relevant information.

The user should see the home page of the application after entering the web application’s URL.

The home page should contain the following:

1. Name of application
2. Reserved area for functions. Place holders should be placed instead of actual links for functions. Functions will be added through succeeding user stories.
3. Reserved area for default views. Nothing to be displayed for now. Views to be displayed will be determined by succeeding user stories.

#### Out-of-scope

Actual content of reserved areas is out of scope and will be specified by other stories.

#### Dependencies

None

#### Acceptance Criteria

1. Base application URL leads to home page.
2. Home page displays web application name
3. Home page has visible areas for functions and default views.

### User Story #.2: Short Name

#### Description

As a (role) I want (something) so that (benefit).

(Details of story here)

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

### User Story #.3: Short Name

#### Description

As a (role) I want (something) so that (benefit).

(Details of story here)

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

### User Story #.4: Short Name

#### Description

As a (role) I want (something) so that (benefit).

(Details of story here)

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

### User Story #.5: Short Name

#### Description

As a (role) I want (something) so that (benefit).

(Details of story here)

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

### User Story #.6: Short Name

#### Description

As a (role) I want (something) so that (benefit).

(Details of story here)

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

### User Story #.7: Short Name

#### Description

As a (role) I want (something) so that (benefit).

(Details of story here)

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

### User Story #.8: Short Name

#### Description

As a (role) I want (something) so that (benefit).

(Details of story here)

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

### User Story #.9: Short Name

#### Description

As a (role) I want (something) so that (benefit).

(Details of story here)

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

### User Story #.10: Short Name

#### Description

As a (role) I want (something) so that (benefit).

(Details of story here)

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

# Case Study ##: Application Name

## General Description

(Details here)

## User Stories

### User Story #.1: View Home Page

#### Description

As a (role) I want to view the application home page when I log in so that I have easy access to the features of the application and quickly see relevant information.

The user should see the home page of the application after entering the web application’s URL.

The home page should contain the following:

1. Name of application
2. Reserved area for functions. Place holders should be placed instead of actual links for functions. Functions will be added through succeeding user stories.
3. Reserved area for default views. Nothing to be displayed for now. Views to be displayed will be determined by succeeding user stories.

#### Out-of-scope

Actual content of reserved areas is out of scope and will be specified by other stories.

#### Dependencies

None

#### Acceptance Criteria

1. Base application URL leads to home page.
2. Home page displays web application name
3. Home page has visible areas for functions and default views.

### User Story #.2: Short Name

#### Description

As a (role) I want (something) so that (benefit).

(Details of story here)

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

### User Story #.3: Short Name

#### Description

As a (role) I want (something) so that (benefit).

(Details of story here)

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

### User Story #.4: Short Name

#### Description

As a (role) I want (something) so that (benefit).

(Details of story here)

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

### User Story #.5: Short Name

#### Description

As a (role) I want (something) so that (benefit).

(Details of story here)

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

### User Story #.6: Short Name

#### Description

As a (role) I want (something) so that (benefit).

(Details of story here)

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

### User Story #.7: Short Name

#### Description

As a (role) I want (something) so that (benefit).

(Details of story here)

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

### User Story #.8: Short Name

#### Description

As a (role) I want (something) so that (benefit).

(Details of story here)

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

### User Story #.9: Short Name

#### Description

As a (role) I want (something) so that (benefit).

(Details of story here)

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)

### User Story #.10: Short Name

#### Description

As a (role) I want (something) so that (benefit).

(Details of story here)

#### Out-of-scope

(Details here)

#### Dependencies

(Details here)

#### Acceptance Criteria

1. (Criteria 1)
2. (Criteria 2)
3. (Criteria 3)