



Dhirubhai Ambani  
Institute of Information and Communication Technology

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## **Project Management Document**

**Topic : Expense Management System like Splitwise**

**Project Title:- SplitEasy**

**Guide TA :- Pinak Gajera**

**Group Number : 11**

| <b>Student Name</b> | <b>Student ID</b> |
|---------------------|-------------------|
| Ayush Bhalani       | 201901048         |
| Anish Parekh        | 201901058         |
| Neel Patel          | 201901068         |
| Jay Makwana         | 201901104         |
| Monil Charola       | 201901119         |
| Siddharth Rathod    | 201901162         |

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Date: 01-04-2022  
Version 1.0

## 1. Activity List

| <b>Sr. No.</b> | <b>Activity</b>                      | <b>Estimated time(in days)</b> | <b>Estimated start date and end date</b> |
|----------------|--------------------------------------|--------------------------------|--|
| 1              | Formulation of the Document          | 4                              | 8-03-2022 to 15-03-2022                  |
| 2              | Designing a solution (Documentation) | 5                              | 17-03-2022 to 26-03-2022                 |
| 3              | Relevant Learning                    | 23                             | 27-03-2022 to 01-05-2022                 |
| 4              | Coding and Unit testing              | 13                             | 01-04-2022 to 17-04-2022                 |
| 5              | Documentation                        | 7                              | 17-04-2022 to 20-04-2022                 |
| 6              | Testing                              | 8                              | 20-04-2022 to 30-04-2022                 |
| 7              | Reviews                              | 4                              | 25-04-2022 to 30-04-2022                 |
| 8              | Re-work and De-Bugging               | 5                              | 28-04-2022 to 03-05-2022                 |

## 2. Project Plan



### 3. Testing Strategy

#### 3.1. Test Cases for requirements

| Test Case ID | Test Case Objective                                       | Test Data  | Expected Result  |
|--------------|---|--|--|
| TC_1         | Test google OAuth, 2-step authentication                  | A valid username (Enter a valid username in real-time scenario)                          | The user should be successfully logged into the web app.                                 |
|              |   | An invalid Username or Password  | The app should display an error message saying the username/password is invalid          |
|              |   | Correct Username and password  | The system should be redirected to the OTP page  |
|              |   | Incorrect OTP is entered   | The system should notify the user and display an error message saying the OTP is invalid |
| TC_2         | Report for bugs in the UI if found any                    | The system UI and its functionalities (User using all the UI functions)                  | Minimal bugs expected  |
| TC_3         | Test if the user details entered are displayed correctly. | Valid user details and his/her profile picture.  | The entered details should be displayed in the user profile section.                     |
| TC_4         | Test the add/delete/settle up expenses functionality      | Description for the expense, amount owed or lent and the users to split the amount with. | The net balance for each user involved in the expense should be updated correctly.       |
|              |   | Simultaneous add/delete/settle up expenses for the same user                             | The output should be correct, and the system should ensure that these transactions are   |

|       |   |   |   |
|-------|---|---|---|
|       |   |   | atomic.   |
| TC_5  | Check if all the transactions added (involving the current user), are displayed in the activity section                     | Add a valid transaction for a given logged-in user                        | All the expenses added should be displayed without fail in the activity section.  |
| TC_6  | Test the messaging system to verify that the messages are being successfully sent and received on both ends.                | Send a message to another user  | When a user pings his friend via messaging, a message should pop up in that friend's account.   |
| TC_7  | The app should redirect the user to the payments site when he/she scans the QR code for settling up an expense.             | The user scans the QR code via his phone camera.                          | The user must be successfully redirected to the payments page.  |
| TC_8  | Test the support of adding expenses in multiple currencies  | Adding an expense made by a user in any other currency than Indian rupee. | The expense added by a user in a currency other than Indian rupee must be converted to INR and then must be added in the net expense of the concerned user. |
| TC_9  | Cross-check the output of the monthly expense chart with the expenses displayed in the activity section                     | A monthly expense chart of the user                                       | The transactions mentioned in the monthly expense chart must also have appeared in the activity section of that user.                                       |
| TC_10 | The app should not crash if multiple user use it simultaneously (troubleshooting the web app server for multi-user support) | Multiple users logged into the web app simultaneously                     | The web app should respond to the user's requests seamlessly without any crashes.   |

|       |  |   |   |
|-------|--|---|---|
| TC_11 | The app should be able to update user information as and when the users wants to | New User data   | The web app should successfully update the data and display it or show error if the data entered is invalid.            |
| TC_12 | A new user should be able to register into the system                            | Minimum User information required to register (information should be valid) | The web app should successfully register the new user and the user should be able to login with the new password setup. |

### **3.2. Test cases and expected result for Design**

#### **3.2.1. Scalability**

The system should be able to support all the traffic for maximum possible users online at the same time.

#### **3.2.2. Security**

Make sure that no one is able to hack into the website and manipulate its data.

#### **3.2.3. Performance and reliability**

The system should perform as per expectations and should be reliable to the users.

### **3.3. Test cases and expected result for Integration**

#### **3.3.1. UI integration testing**

#### **3.3.2. Payment Gateway Integration testing**

Ensure that the system is working properly with all the payment methods available to settle up

#### **3.3.3. Backend Integrtion testing**

### 3.4. Schedule and Person/s responsible

| Test Case ID | Estimated time (in days) | Estimated Start date and End date | Person Responsible for testing |
|--------------|--------------------------|-----------------------------------|--------------------------------|
| TC_1         | 1                        | 20-04-2022                        | Anish, Jay                     |
| TC_2         | 3                        | 20-04-2022 to 22-04-2022          | Ayush, Monil, Siddharth        |
| TC_3         | 2                        | 21-04-2022 to 22-04-2022          | Ayush, Jay                     |
| TC_4         | 4                        | 23-04-2022 to 26-04-2022          | Anish, Monil, Neel             |
| TC_5         | 1                        | 24-04-2022                        | Siddharth                      |
| TC_6         | 2                        | 24-04-2022 to 25-04-2022          | Neel, Anish                    |
| TC_7         | 1                        | 26-04-2022                        | Ayush                          |
| TC_8         | 2                        | 26-04-2022 to 27-04-2022          | Jay, Siddharth                 |
| TC_9         | 2                        | 27-04-2022 to 28-04-2022          | Jay, Monil                     |
| TC_10        | 2                        | 27-04-2022 to 28-04-2022          | Anish, Siddharth               |

### 4. Any other special activities and an appropriate breakup with estimation, as recommended by the standard fixed.

Organising a special meeting with the users and presenting the system to the users and taking feedback from them. The presentation should take about 10-15 minutes, and the feedback session should take up to 30 minutes.