**Software Requirements Specification (SRS) Document**

|  |  |
| --- | --- |
|  | Project Name: Mobile Recharge Application  Team name: Team 18 ,  Team Members: Shivin Yadav, Adarsh Sanjeev, Saurabh Agrahari, Anshu Singh Rajpoot |
|  |  |

**Brief problem statement**

Building a mobile recharge application to provide a simple and easy way for users to recharge their phone balance and in the process offering the users various offers and functionalities not available in current mobile recharge applications. The app also has a special feature in which we offer daily bonuses and the user who uses these offers can choose one of their friends who will receive the special bonus from the recharge in the form of a recharge of equal amount to the user thus ensuring the users keep coming back to our app for offers like these. This functionality makes our app unique and gives it a competitive edge to our app.

**System requirements**

* Android Device with an active internet connection, and running APK 13 or above.
* The Mobro server must be able to support MYSQL and PHP 5.0

**Users profile**

* The Busy users/New Users: These users are new to using computers and phones or are very busy, have a lack of time and thus require a simple and easy interface to make payment without much complications such as offers
* The Experienced Users: The Users who want to avail offers and discounts ,have prior experience with such systems and want to avail the full set of features of the application
* Basic Knowledge for online payments:
* Must have a bank account
* Active Internet connection to make payment
* User must have a means of online payment:
* Credit card, Debit card
* Net banking
* Other online Payment options

**Feature requirements**

|  |  |  |  |
| --- | --- | --- | --- |
| **No.** | **User Case Name** | **Description** | **Release** |
| 1 | App Initialization | At the start of the App  User can register.  User can login. | R1 |
| 2  2 | Login User | App will ask for the Phone number and password .  *It verifies the input given and then redirects to the main page of the App. If the details are wrong, the login is rejected.* | R1 |
| 3 | Forgot Password | App will ask email-id and user name and verifies by sending a one time password through the email. | R1 |
| 4  4 | Register User | If applicant has not register , then first they have to register (they will have click on register). They will have to fill name, email id, password, conform password, and then click on the button create account. | R1 |
| 5 | Find Mobile Operator | Once logged in the user can enter a mobile number and then get the mobile service provider | R1 |
| 6 | Select Package | Select package from available packages for the service provide. | R1 |
| 7 | Payment from wallet | The payment for the user can happen thorough both the payment gateway and the wallet the app automatically reduces the amoun to be paid by the wallet amount. | R2 |
| 8 | Redirect to payment gateway | Redirects the user to a payment gateway, depending on the mode of payment that they chose, and wait for the gateway to return a message, stating if successful or not | R2 |
| 9 | Add friend | Allows user to add numbers as friends, to provide quick recharge options for them too. | R2 |
| 10 | Recharge simultaneously | The app allows to add the multiple person whom the user want to do recharge simultaneously. | R2 |
| 11 | Refund | In case of a failed recharge the user is refunded the payment amount, in the user's wallet. | R2 |

**Use case diagram**



**Use case description**

|  |  |
| --- | --- |
| **Use Case Number:** | 1 |
| **Use Case Name:** | App initialization |
| **Overview:** | Initializes the app and checks if user is connected to the Internet |
| **Actors:** | User |
| **Pre condition:** | 1.The app must be installed on the user’s device  2.The user must have a device that support’s the app’s framework |
| **Flow:** | Main (success) Flow:   * The app is installed on the device if not already installed * The user taps on the app’s icon in his app drawer * The app starts up and checks if the user has an active Internet connection |
|  | Alternate Flows:  2.1 If the user does not have the required framework to run the app an  error message is displayed to the user  3.1 If the user does not have an active Internet connection the app asks  the user to connect to the Internet |
| **Post Condition:** | User can now proceed to use the app |

|  |  |
| --- | --- |
| **Use Case Number:** | 2 |
| **Use Case Name:** | Log-in User |
| **Overview:** | The user logs into his account with his credentials |
| **Actors:** | User, Mobro Server |
| **Pre condition:** | User must be registered |
| **Flow:** | Main Flow:   * The user enters his registered mobile number and password to log into his account |
|  | Alternate Flows:  1.1 The user is not registered ,in this case user can register for an account  1.2 The user has forgotten his credentials ,in this case the user can go to  the forgot password section |
| **Post Condition:** | The user has access to his account and can now proceed with recharge and use his custom vouchers and codes |

|  |  |
| --- | --- |
| **Use Case Number:** | 3 |
| **Use Case Name:** | Forgot Password |
| **Overview:** | The user who has forgotten his password recovers his password |
| **Actors:** | User,Mobro server |
| **Pre condition:** | The user is a registered user i.e. has an account with the app |
| **Flow:** | Main (success) Flow:   * The user enters his mobile number or email id as a means of identification * The credentials of the given user are referenced with those of registered user |
|  | Alternate Flows:  2.1 If the user credentials are not present in the database the user is  informed that no such account exists |
| **Post Condition:** | An email with the link to change the password is sent to the user |

|  |  |
| --- | --- |
| **Use Case Number:** | 4 |
| **Use Case Name:** | Register user |
| **Overview:** | For using this app user must registered . |
| **Actors:** | User,Mobro server |
| **Pre condition:** | User must have this application. |
| **Flow:** | Main flow   * User have to enter username. * Enter email-id * Enter Password * Enter confirm Password. |
|  | Alternate Flows:  1.1 If this username is already present in the database ask the user to change the username.  2.2 If the provided email-id is not valid then displays error(given email-id is not valid  3.3 If entered password and confirmed password is not matched then ask user to re-enter the confirmed password. |
| **Post Condition:** | conformation email should be send to the user to complete registration process. |

|  |  |
| --- | --- |
| **Use Case Number:** | 5 |
| **Use Case Name:** | Find Mobile Operator |
| **Overview:** | Once logged in the user can enter a mobile number and then get the mobile service provider. |
| **Actors:** | User, Service Provider, Mobro Server |
| **Pre condition:** | The user must be logged in. |
| **Flow:** | Main (success) Flow:   * User entered the mobile number * App fetches the mobile operator. |
|  | Alternate Flows:  1.1 User entered the wrong mobile number, then app will show wrong  number and ask user to re-enter the mobile number |
| **Post Condition:** | Check the mobile number entered by the user and show the operator on the basis of mobile number |

|  |  |
| --- | --- |
| **Use Case Number:** | 6 |
| **Use Case Name:** | Select top up. |
| **Overview:** | Select the top up, out of a list of top ups that are provided by the user’s service provider |
| **Actors:** | User, Service Provider, Mobro Server |
| **Pre condition:** | * The user must be logged in. * The must have entered the mobile number to get the service provider |
| **Flow:** | Main (success) Flow:   * On successfully getting the service provider for the phone number entered the app displays the user a list of available top-ups for the service provider * The user chooses the amount to recharge from a list of top-ups or enters a custom amount |
|  | Alternate Flows:  1.1 The app fails to get a list of top-ups for the given service provider then  then the user is asked to enter a custom recharge amount for the recharge |
| **Post Condition:** | The user chooses recharge amount and proceeds to payment |

|  |  |
| --- | --- |
| **Use Case Number:** | 7 |
| **Use Case Name:** | Payment from Wallet |
| **Overview:** | The user decides the packages the final amount is decided based on the wallet and the minimum amount payable |
| **Actors:** | User, Payment gateway |
| **Pre condition:** | * The user has an online bank account * The user can pay in one of the available formats * The user is a registered customer |
| **Flow:** | Main (success) Flow:   * The user confirms the payment amount * The amount is calculated according to the user's wallet and the minimum payable amoun to the payment gateway |
|  | Alternate Flows:  2.1 If the payment is cancelled the amount is refunded back to the user wallet |
| **Post Condition:** | The user is redirected to the payment gateway or to the final payment based on his amount. |

|  |  |
| --- | --- |
| **Use Case Number:** | 8 |
| **Use Case Name:** | Redirect to payment gateway |
| **Overview:** | The user is redirected to the payment gateway and confirms the payment for the amount of the recharge |
| **Actors:** | User,Payment Authority |
| **Pre condition:** | * The user must be a registered user * The user must have an account with the payment authority * The user must have chosen a valid payment gateway |
| **Flow:** | Main (success) Flow:   * The user enters his credentials and confirms the payment for the give amount on the payment gateway * If the payment is confirmed the users account is credited with the given amount and an order id is generated |
|  | Alternate Flows:  1.1 If the payment fails for any reason the app shows the recharge as  failed and asks the user for further input |
| **Post Condition:** | The user’s phone is credited with the given amount |

|  |  |
| --- | --- |
| **Use Case Number:** | 9 |
| **Use Case Name:** | Add friends |
| **Overview:** | The user adds his friends or relatives for quick recharge options. |
| **Actors:** | User<<primary>>,User<<secondary>> |
| **Pre condition:** | * The user adds other users must himself be registered |
| **Flow:** | Main (success) Flow:   * The user selects his contacts or his social network contacts * User sends invites to the selected contacts to use the app |
|  | Alternate Flows: |
| **Post Condition:** | An invite is sent to the selected contacts to use the app by the user’s recommendation |

|  |  |
| --- | --- |
| **Use Case Number:** | 10 |
| **Use Case Name:** | Recharge Simultaneously |
| **Overview:** | The purpose of this use case is to recharge more than one person simultaneously by the user , hence it saves the time of the user |
| **Actors:** | User |
| **Pre condition:** | User must be logged in |
| **Flow:** | Main (success) Flow:   * User enters the mobile number of the each person to recharge. * App follows the phone number identification use case * The user chooses the amount to recharge from a list of top-ups or enters a custom amount follows according to the choosing the top up use case * The final payment which is redirected to the payment gateway is sum of recharge of each person. |
|  | Alternate Flows:  1.1 User entered the wrong mobile number then the app display messages(wrong mobile number).  3.1 The app fails to get a list of top-ups for the given service provider then the user is asked to enter a custom recharge amount for the recharge. |
| **Post Condition:** | The user chooses recharge amount for each person at a time and proceeds to payment gateway where final payment is sum of all the recharges of each person involved. |

|  |  |
| --- | --- |
| **Use Case Number:** | 11 |
| **Use Case Name:** | Get Refund |
| **Overview:** | When recharging, if the payment is successful but the recharge is not, the amount is added to the user's wallet. |
| **Actors:** | Payment authority, Mobro Server |
| **Pre condition:** | User must logged |
| **Flow:** | Main (success) Flow:   * While recharging process if recharge is unsuccessful and amount is deduct then user automatically receives the amount, in their wallets. |
|  | Alternate Flows:  Nothing |
| **Post Condition:** | The user is refunded with the payment amount |