Java miniproject on :

**MOBILE PREPAID RECHARGING SYSTEM**

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1. Introduction

1.1 Background:

In the current system the user who want to recharge their mobile have to go to any shop where recharge is available. They have to go the shop and ask for the specific recharge. The shopkeeper keeps the record of the number in any book.

1.2 Objective:

This project is my effort for Online Prepaid Mobile Recharge. This project is useful for online recharging of mobile and also shows the balance after you make a call. This System provides recharge of many mobile companies as well as all kind of recharge are possible. This System will provide facility for customer to recharge mobile at anytime from anywhere. This System keeps the history of the past recharges. The user have to register himself. There is a call system too which allows the user to make calls and show balance after each call. It keeps track of the phone balance.

1.3 Purpose

The purpose of the web application is the automation of mobile recharge and to make calls. It provides facilities to Admin:

 To add Tariff plans.

 To update, create and delete the tariff plans.

User:

 Can recharge at anytime.

 Make calls.

1.4 Scope

This website would help the customers to recharge their phones and make calls from anywhere and anytime online.

2. Requirement and Analysis

2.1 Planning and Scheduling:

The basic plan is to design such a website which would help the customer to recharge their mobile phone and make calls at one click as per their requirement.

2.2 Problem Definition:

 Takes lot of time

 In current system maintaining security is very difficult.

 There are calculation errors.

 In today’s world most of the people don’t have time to go to retail shops and do the recharge.

 Every time your talk time runs out, you have to rush to the vendor for buying recharge.

 Sometime while having an important talk/discussion with your friends/family/client, the talk time get over.

2.3 Advantages of Proposed System:

 This is useful for customer to recharge mobile from anywhere and anytime.

 Easy to get information as per requirement.

 More user friendly since .net is a easy language.

 Maintain history of past as well as present recharges.

 Reduces paperwork.

 Very easy to maintain data and information about data.

2.4 Conceptual Model

Use case model :

Customer Online

( User ) System

3. Concepts used :

This java project is done by using swing concepts, files ( file streaming and object stream classes ), html, exception handling, validation ( mobile number, account number and password validation ), threads ( for call duration ).

4. Modules:

1 ) Accounts :

Stores card number, password and balance of customer debit/credit card.

2 ) Recharge Information:

Allow you to see the recharge product their information.

3 ) Call :

Here, fileinputstream ,fileoutputstream, object stream (input and output stream), array lists, thread and swings, Jlabel are used. The call duration is calculated here. The amount for a call is calculated such that for every 5 secs Rs.1 is deducted from your balance.

But the drawback here is that this system holds only a record of 18 mobile numbers and their operator. And they already hold a balance is their mobile which is pre-defined.

It validates by checking the number (string length and only those 18 mobile numbers work in this system).

3 ) Payment :

JYOSMITH online payment page , the amount entered to recharge is displayed and it asks for debit/credit card number and the 3D secure password for the same. Then it validates both the card number as well as the password. Payment is done if both are correct.

Here, the drawback is that the system holds information of only 4 account details. 4 card numbers and their valid passwords. If wrong password/ card number is entered, payment is unsuccessful.

4 ) Phone number :

It stores the mobile number, its valid operator and the balance amount.

5 ) Plan selector :

It holds all the records of account details and the mobile numbers registered in this system along with theirs operator details.

6 ) Main :

Package javaapplication11 contains main function.

Jlabel, Jbutton.

7 ) Summary :

Pop-up message after your recharge.

**TEST CASES**

For recharge :

1. Correct phone number correct card details

The mobile number is one of them present in the records ( given in the system (18)). And it should be an Indian number i.e) 10 digits checks if string length is 10. The card number and the 3D secure password matches (i.e ) already stored in system. Recharge is successful pop-up shows.

1. Correct phone number wrong card details

* Card number correct password wrong

Card number is one of the 4 numbers already stored in system but if the password doesn’t match the given card number then it will show a pop-up saying “password invalid”.

* Card number wrong password correct

If the card number is not from the ones mentioned in code or if doesn’t match the string length which is 8 but the password is correct ie) from the code, then a pop-up shows saying “invalid card number”.

1. Wrong phone number

* Not mentioned in code

If we give any number other than the one mentioned in code, it will show a pop-up saying ”Phone number does not exist or incorrect operator selected”.

* Correct phone number wrong operator

While recharging if we enter a valid mobile number but select the wrong operator (ie) instead of idea we select airtel, it will show us a pop-up saying “ phone number does not exist or incorrect operator selected”.

* Phone number length wrong

While recharging, if we enter a non- Indian number (ie) number with digits more than 10 or less than 10, it will show us a pop-up saying “Invalid Mobile number”.

For Call :

1. Correct phone number correct operator

While making call, if we enter a valid mobile number from the records and it matches the operator (operators available are Idea, Airtel, Vodafone, and BSNL) then your call is connected!!

1. Correct phone number wrong operator

While making call, if we enter a valid mobile number from the records but we select the wrong operator it shows a pop-up saying” phone number does not exist or incorrect operator selected”.