Use Case Diagram

Actors vs Use Cases:

Actor 1:User
- •Register.
- •Recharge.
- •Select Payment Gateway.
- •Select service Provider.
- •Make payment.
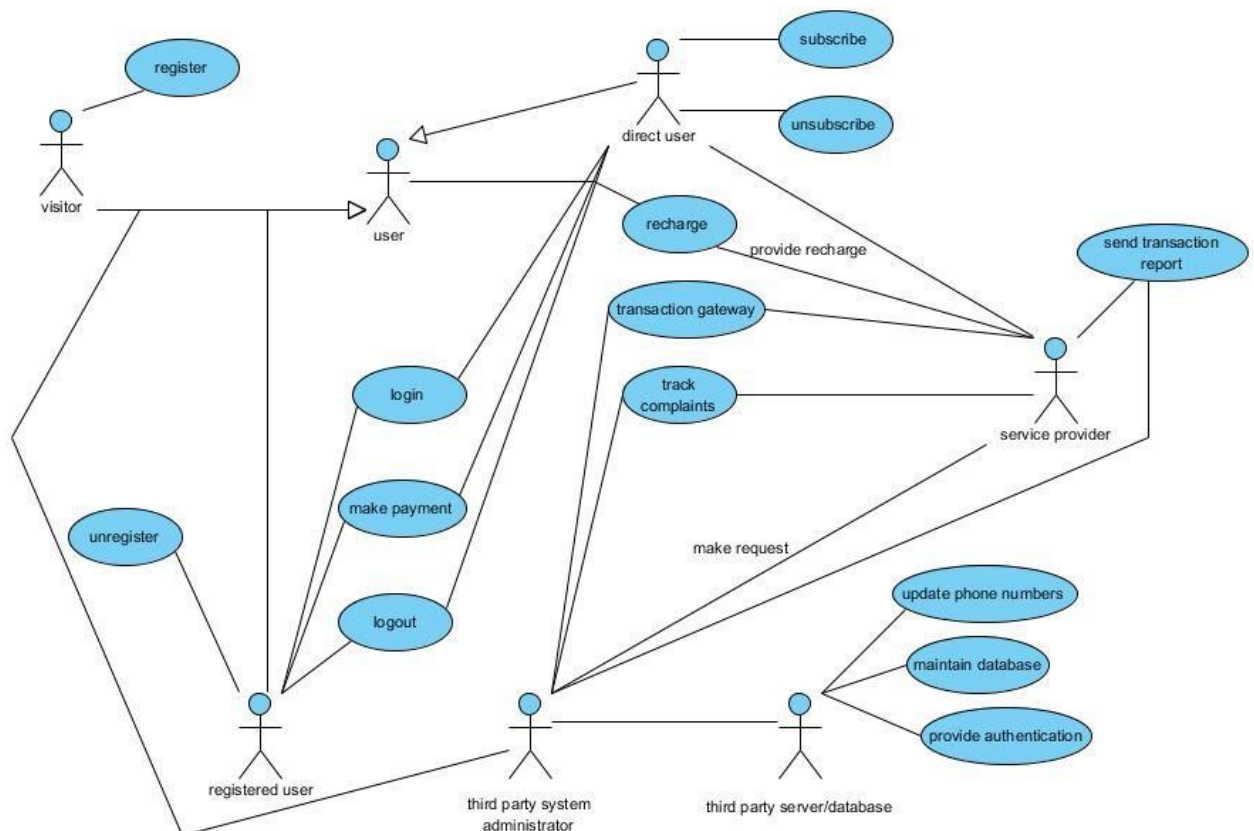
Actor 2:Third Party Administrator
- •Forward User request to Service Provider.
- •Track Complaints.

Actor 3:Third Party Server/ Database
- •Authenticate the Registered users.
- •Maintain the Log.

Actor 4:Service Provider
- •Recharge the user requested either directly or through the third party system.
- •Provide various plans to the user.

Activity Diagram For Online Recharge System

Activities Delt in the System:

User login and authentication for Registered user.
Forward the request to service provider if logged in as a Administrator.
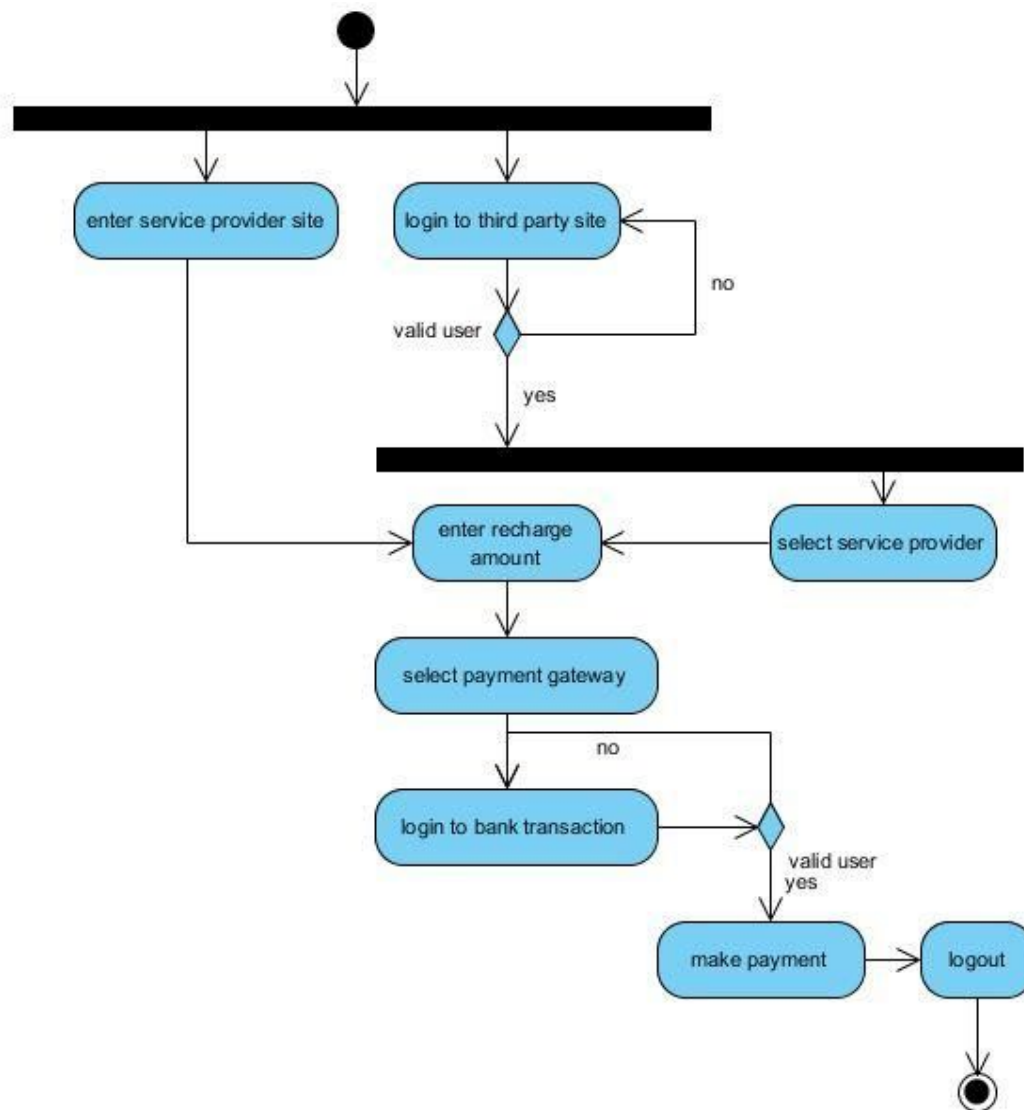Enter service provider site for a direct user.
Enter recharge amount.
Select Payment Gateway.
Login and authenticate Bank Account.
Make payment.
Check for the recharge processed successfully or not.

State Diagram

States:
Authentication for registered users / Registration for unregistered users
Successfully logged on or re-login
Operator Selection
Show the tariff plans available and applicable
Request recharge
Go through Payment Gateway Transaction process
•Authentication to enter the gateway site
•Successfully logged on or re-login
•Payment made
Logged off.

Transitions:
Registration ---> Authenticate ---> Logged in
Logged in ---> Operator Selection ---> Tariff Plans <---> Request Recharge
Operator Selection ---> Request Recharge ---> Payment Gateway Transaction
Payment Gateway Transaction ---> Operator Selection
Payment Gateway Transaction ---> Logged off