## Case Study Topic: Java Classes and their relations.

## A

## In an EWallet app there are different types of Users.

## User registers for the first time and an account is created .

## he logins every time he uses the app.

## Create Classes for the above scenario and test it with a client code.

## Refer the following class diagram.

Sam

Account

String : creditCardNo

String : validDate

double : balance

User :user

User

String : name

String :phone

Account :account

Sample Client Code:

User newUser = User(“sam”,”8998772222”);

Account userAccount= new Account(“2223 4445 3333 2222”,”12/7/2020”,500,newUser);

//print the details of the newUser from userAccount.

B User can be a Customer,Employee or a Student.

Customer has a custId that is autogenerated and email id.

Employee has an empCode and dept he works in.

Student has college name.

Create classes for the above and test it with a client program,.

C

User has a functionality giveOffers() that gives offers to different types of Users.

For Customers 10% cash back.

Employees will get a 20% cash back and Students get a 25% cash back.

D Since giveOffers() is not implemented in User and should be available as a contract for the different users to implement it can be marked as abstract and User class as abstract.

E

Modify the above application for the following sample client code:

//Read the type of user (customer.employee,student) in userType.

User user = Factory.getUser(userType);

UtilityClass.printDetails(user);

User.giveOffers();

F Create an Interface Payment that has a method printInvoice(double amount) that is implemented by customer class.

printInvoice(..) method prints the Customer details along with the current date and time and the amount.