**Group Project work:10% .You have to be in group of 2 to work on below project**

**Description**

You have been asked to develop a java application for Banking System. You will be using the concept of inheritance to implement the Savings account and Checking account class. Your account class is the parent class.

**Account Class ::parents class**

• A private int data field named **customerid**for the Customer (default 0) .

• A private double data field named **balance**for the account (default 0). Balancecannot be negative.

• A no-argumentconstructor that creates the account with default values assigned to the instance variable.

• A constructor that creates an account with a specified id and initial balance. Again check that balance cannot be 0 or negative.

• The accessor (getter) and mutator (setter) methods for the data fields **id**and **balance**

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**Checking Account class : Implements Account Class**

1)implement the body of method **getMonthlyInterest()**that returns the monthly interest. In checking account there is no monthly interest so return 0.

2) Implement the body of method **withdrawAmount(double Amount)**that withdraws a specified amount from the checking account. If the withdrawal results in a negative balance or zero , the error message should be shown to the user: ("There is not enough balance in your account) and again move back to original balance

3) Implement the body of method **depositAmount(double Amount)*:*** that deposits a specified amount to the account.

**Savings Account class : Implements Account Class**

1)implement the body of method **getMonthlyInterest()**The monthly interest = balance \* (2/1200) for savings account

2) Implement the body of method **withdrawAmount*(double amount)*** that withdraws a specified amount from the savings account. If the withdrawal results in a negative balance or zero , the error message should be shown to the user: ("There is not enough balance in your account) and again move back to original balance

3) Implement the body of method **depositAmount(double amount):**that deposits a specified amount to the account.

**Customer Class**

Customerhas First Name (String), Last Name (String), Email Address (String), and Phone Number (String) and customerid(int)

Customerclass needs to implement the printInfo() method to print the customer’s information. Proper getter/setter and constructor methods should be implemented

**TestAccount Class**

You need to create a class called **TestAccount**.

Ask user to input the First Name (String), Last Name (String), Email Address (String), and Phone Number (String) and customer id

**TestAccount** class will create object of Customerclass.

Now ask Customer to enter initial balance and ask which type of account customer wants to create.

If customer enters S then create savings account with same customer id

If Customer enters C then create checking account with same customer id

After opening the account, the user needs to be presented with a menu that interactively allows him/her to:

1. Check Balance
2. Withdraw
3. Deposit

4) Print customer detail