dlt

Lab-5

- Develop a java program to create a class bank that maintains two kinds of account for its customers, one called saving account and the other current account. The savings account provides compound interest and withdrawal facilities but no cheque book facility. The current account provided cheque book facility but no interest. Current account holders should also maintain a minimum balance and if the balance falls below this level, a service charge is imposed.

- Create a class account that stores customer name, account number and type of account from this derive the classes cur-acct and sav-acct to make them more specific to their requirements. Include the necessary methods in order to achieve the tasks:

(a) Accept deposit from customer and update the balance

(b) Display the balance

(c) compute and deposit interest

(d) permit withdrawal and update the balance

- Check for the minimum balance, impose penalty if necessary and update the balance.

```
Import Java.util.Scanner;

class Account {
    private String customerName;
    private String accountNumber;
    private String accountType;
    protected double balance;

Public Account (String customerName, String accountNumber, String
                accountType, double balance) {
    this.customerName = customerName;
    this.accountNumber = accountNumber;
    this.accountType = accountType;
    this.balance = balance;
    }

Public void deposit (double amount) {
    balance += amount;
System.out.println ("Amount deposited successfully. current balance:
                    balance");
    }

Public void displayBalance() {
System.out.println ("Account type: " + accountType);
System.out.println ("customerName: " + customerName);
System.out.println ("Account number: " + AccountNumber);
System.out.println ("current Balance: " + balance);
    }
}

class SavingsAccount extends Account {
    private double interestRate;

Public SavingsAccount (String customerName, String accountNumber,
                       double balance, double interestRate) {
```

```
super (customerName, accountNumber, "Savings", balance);
    this.interestRate = interestRate;
}

Public void computeAndDepositInterest() {
    double interest = balance * interestRate / 100;
    deposit (interest);
    System.out.println ("interest computed and deposited, current balance:" +
                        balance);
}

Public void withdraw (double amount) {
    if (balance >= amount) {
        balance -= amount;
    System.out.println ("Insufficient funds. Withdrawal failed.");
}
}
}

class CurrentAccount extends Account {
    private static final double Service_charge = 250;
    private double minimumBalance;

public current

public class Bank {
    public static void main (String[] args) {
    Scanner sc = new Scanner (System.in);

    System.out.println ("enter cust name");
    String custName = sc.nextLine();

    System.out.println ("acc no");
    String accNum = s.nextLine();
```

```
Syslin.out.println("enter initial balance");
double initialBalance = S.nextDouble();

SavingsAccount SavingAccount = new SavingsAccount(custName, accNum,
  initialBalance, 2.5);
SavingsAccount
CurrentAccount CurrentAcount = new CurrentAccount(custName, accNum,
  initialBalance, 500);

int choice;
do{
  Syslin.out.println("\n Select an option");
  Syslin.out.println("1. Deposit to Savings \n 2. compute and
  deposit interest for saving \n 3. withdraw from savings \n 4.
  deposit to current account \n 5. withdraw from current \n
  6. Display balance \n 7. exit");
Syslin.out.println("Enter your choice");
  choice = Scanner.nextInt();

Switch (choice){
  case 1:
    syslin.out.println("enter amount to deposit");
  double savingsDepositAmount = S.nextDouble();
  SavingAccount.deposit(savingsDepositAmount);
  break;
case 2:
  SavingsAccount.computeAndDepositInterest();
  break;
case 3:
  Syslin.out.println("enter amount to withdraw");
  double savingsDepositWithdrawAmount = S.nextDouble();
  ~~Current~~ deposited(~~current~~DepositAccount);
break;
  SavingsAccount withdraw(savingsWithdrawAmount);
  break;
```

```
case 4:
System.out.println("enter the amount to deposit");
 double currentDepositAmount = S.nextDouble();
 currentAccount.deposit(currentDepositAmount);
 break;
case 5:
System.out.println("enter the amount to withdraw from current
                    account");
double currentwithdrawAmount = S.nextDouble();
currentAccount.withdraw(currentwithdrawAmount);
 break;
case 6:
System.out.println("\n Savings account Details;");
 SavingsAccount.displayBalance();

case 7:
System.out.println("Thank you");
 break;
default:
  System.out.println("invalid choice");
}
```