22/1/24

LAB PROGRAM - 5
BANK

class account with savings & current account
Intrest & Deposit → savings
Service charge & minimum Balance → current

A. PROGRAM:

```
import java.util.Scanner;

class Account
{
  String customerName;
  long accountNumber;
  String accountType;
  double balance;

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

  void deposit (double amount)
  {
    balance = balance + amount;
    System.out.println("Deposit of " + amount + " was
                       successfull. Balance: "
                       + balance);
  }
```

```
void displayBalance()
{
System.out.println("Account Number: " + accountNumber +
                   "\nCustomer Name: " + customerName +
                   "\nAccount Type: " + accountType +
                   "\nBalance: " + balance);
}
}

class SavingsAccount extends Account
{
SavingsAccount(String customerName, long accountNumber,
               double balance)
{
super(customerName, accountNumber, "Savings", balance);
}

void interest(double rate)
{
double interest = balance * rate/100;
balance = balance + interest;
System.out.println("Interest computed and deposited.
                   Updated balance: " + balance);
}

void withdraw(double amount)
{
  if(amount <= balance)
  {
    balance = balance - amount;
  System.out.println("Withdrawal of " + amount +
                     "successful. Updated balance: "
                     + balance);
  }
```

```
else
{
  System.out.println("\n Insufficient funds.
                      Withdrawal failed.\n");
}
}
}

class CurrentAccount extends Account
{
  double minimumBalance;
  double serviceCharge;

CurrentAccount(String customerName, long accountNumber,
               double balance, double minimumBalance,
               double serviceCharge)
{
  super(customerName, accountNumber, "Current", balance);
  this.minimumBalance = minimumBalance;
  this.serviceCharge = serviceCharge;
}

void checkMinimumBalance()
{
  if (balance < minimumBalance)
  {
  balance = balance - serviceCharge;
  System.out.println("\n Minimum balance not maintained.
  Service charge imposed. Balance: " + balance);
  }
  else
{
System.out.println("\n Minimum balance maintained.
                    Service charge not imposed.
                    Balance:" + balance);
}
}
```

```
void cheque(double amount)
{
  balance = balance - amount;
  System.out.println("\n Withdrawal of " + amount +
  "successful. Updated balance : " + balance);

  }
}


class Bank
{
  public static void main(String[] args)
  {
    Scanner input = new Scanner(System.in);
  System.out.println("Savings Account :");
System.out.println("Enter customer name :");
  String name = input.nextLine();

System.out.println("Enter account number :");
  long no = input.nextLong();

System.out.println("Enter balance :");
  double balance = input.nextDouble();

SavingsAccount SA = new SavingsAccount(name,
                    no, balance);

  System.out.println("\n Current Account :\n");
System.out.println("Enter customer name :");
  String name = input.nextLine();
```

```
System.out.println("Enter account number: ");
no = input.nextLong();
System.out.println("Enter balance: ");
balance = input.nextDouble();
System.out.println("Enter minimum Balance: ");
double minBalance = input.nextDouble();
System.out.print("Enter service charge: ");
double charge = input.nextDouble();

CurrentAccount CA = new CurrentAccount
                    (name, no, balance, minBalance,
                     charge);

System.out.print("Enter deposit for savings: ");
double DS = input.nextDouble();
SA.deposit(DS);

System.out.print("Enter interest rate of savings: ");
double IS = input.nextDouble();
SA.interest(IS);

System.out.print("Enter withdrawal amount of savings: ");
double WS = input.nextDouble();
SA.withdraw(WS);

System.out.print("Enter deposit of current: ");
double DC = input.nextDouble();
CA.deposit(DC);

System.out.print("Enter withdrawal of current: ");
double WC = input.nextDouble();
CA.cheque(WC);
```

```
System.out.println("\n Final Balances:");
System.out.println(" Saving Account : ");
SA.displayBalance();

System.out.println("\n Current Account :");
CA.displayBalance();

}
}
```

OUTPUT

```
Saving Account :
Enter Customer name : Aaron G
Enter account number : 100
Enter balance : 50000

Current Account :
Enter customer name : Sangeetha
Enter account number : 200
Enter balance : 150000
Enter minimum balance : 20000
Enter service charge : 10

Enter deposit amount for Saving Account : 10000
Deposit of 10000.0 was successful. Balance : 60000.0

Enter interest rate for SavingsAccount : 5
Interest computed and deposited. Updated balance : 63000.0

Enter withdrawal amount for Saving Account : 2000
Withdrawal of 2000.0 was successful.
    Updated balance : 61000.0
```

Bafna Gold
Date: Page:

Enter deposit amount for current account : 20000
Deposit of 20000.0 successful. Updated balance:
170000.0
Enter withdrawal amount for current Account : 50000
Withdrawal of 50000.0 successful. Updated balance
: 120000.0

Final Balances:
Savings Account:
Account Number : 100
Customer Name : Chinmay
Account Type : Savings
Balance : 61000.0

Current Account:
Account Number : 200
Customer name : Sampath
Account Type : Current
Balance : 120000.0

28/01/24

```
import java.util.Scanner;

class Account
{
String customerName;
long accountNumber;
String accountType;
double balance;

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

void deposit(double amount)
{
balance = balance + amount;
System.out.println("Deposit of " + amount + " was successful. Balance: " + balance);
}

void displayBalance()
{
System.out.println("\nAccount Number: " + accountNumber + "\nCustomer Name: " +
customerName + "\nAccount Type: " + accountType + "\nBalance: " + balance);
}

}
```

```
class SavingsAccount extends Account
{

SavingsAccount(String customerName, long accountNumber, double balance)
{
super(customerName, accountNumber,"Savings", balance);
}

void interest(double rate)
{
double interest = balance * rate / 100;
balance = balance + interest;
System.out.println("Interest computed and deposited. Updated balance: " + balance);
}



void withdraw(double amount)
{

if(amount<=balance)
{
balance = balance - amount;
System.out.println("Withdrawal of " + amount + " successful. Updated balance: " + balance);
}

else
{
System.out.println("Insufficient funds. Withdrawal failed.");
```

```
}


}


}
```

```
class CurrentAccount extends Account
{
double minimumBalance;
double serviceCharge;

CurrentAccount(String customerName, long accountNumber, double balance, double
minimumBalance, double serviceCharge)
{
super(customerName,accountNumber,"Current",balance);
this.minimumBalance=minimumBalance;
this.serviceCharge=serviceCharge;
}

void checkMinimumBalance()
{
if(balance<minimumBalance)
{
balance = balance - serviceCharge;
System.out.println("Minimum balance not maintained. Service charge imposed. Updated balance: "
+ balance);
}
else
{
```

```
System.out.println("Minimum balance maintained. Service charge not imposed. Updated balance: "
+ balance);
}
}

void cheque(double amount)
{



balance = balance - amount;
System.out.println("Withdrawal of " + amount + " successful. Updated balance: " + balance);
}


}



public class Bank
{
   public static void main(String[] args)
{
      Scanner s1 = new Scanner(System.in);

System.out.println("Savings Account: ");
      System.out.print("Enter customer name: ");
      String name = s1.nextLine();
      System.out.print("Enter account number: ");
      long no = s1.nextLong();
      System.out.print("Enter initial balance: ");
      double balance = s1.nextDouble();
      SavingsAccount SA = new SavingsAccount(name, no, balance);
System.out.print("\n");
```

```
System.out.println("Current Account: ");
        System.out.print("Enter customer name: ");
        name = s1.next();
        System.out.print("Enter account number: ");
        no = s1.nextLong();
        System.out.print("Enter balance: ");
        balance = s1.nextDouble();
        System.out.print("Enter minimum balance: ");
        double minBalance = s1.nextDouble();
        System.out.print("Enter service charge: ");
        double charge = s1.nextDouble();
        CurrentAccount CA = new CurrentAccount(name, no, balance, minBalance, charge);
System.out.print("\n");


        System.out.print("Enter deposit amount for Savings Account: ");
        double SDA = s1.nextDouble();
        SA.deposit(SDA);
System.out.print("\n");

        System.out.print("Enter interest rate for Savings Account: ");
        double SIR = s1.nextDouble();
        SA.interest(SIR);
System.out.print("\n");

        System.out.print("Enter withdrawal amount for Savings Account: ");
        double SWA = s1.nextDouble();
        SA.withdraw(SWA);
System.out.print("\n");
```

```
        System.out.print("Enter deposit amount for Current Account: ");
        double CDA = s1.nextDouble();
        CA.deposit(CDA);
System.out.print("\n");

        System.out.print("Enter withdrawal amount for Current Account: ");
        double CWA = s1.nextDouble();
        CA.cheque(CWA);
System.out.print("\n");



        System.out.println("\nFinal Balances:");
        System.out.println("Savings Account:");
        SA.displayBalance();
System.out.print("\n");

        System.out.println("\nCurrent Account:");
        CA.displayBalance();

    }
}
```

Output:

Savings Account:

Enter customer name: Charan G

Enter account number: 100

Enter initial balance: 50000

Current Account:

Enter customer name: Sangeetha

Enter account number: 200

Enter balance: 150000

Enter minimum balance: 20000

Enter service charge: 10

Enter deposit amount for Savings Account: 10000

Deposit of 10000.0 was successful. Balance: 60000.0

Enter interest rate for Savings Account: 5

Interest computed and deposited. Updated balance: 63000.0

Enter withdrawal amount for Savings Account: 2000

Withdrawal of 2000.0 successful. Updated balance: 61000.0

Enter deposit amount for Current Account: 20000

Deposit of 20000.0 was successful. Balance: 170000.0

Enter withdrawal amount for Current Account: 50000

Withdrawal of 50000.0 successful. Updated balance: 120000.0

Final Balances:

Savings Account:

Account Number: 100

Customer Name: Charan G

Account Type: Savings

Balance: 61000.0

Current Account:

Account Number: 200

Customer Name: Sangeetha

Account Type: Current

Balance: 120000.0