

LAB-5:

Develop a Java program to create a class Bank that maintains two kinds of account for its customers, one called savings account and the other current account. The savings account provides compound interest and withdrawal facilities but no cheque book facility. The current account provides 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 Curr - acc and Sav - acc to make them more specific to their requirements. Include the necessary methods in order to achieve the following tasks:

- Accept deposit from customer and update the balance
 - Display the balance
 - 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 name;
    private long account-number;
    private int account-type;
```


double balance;

void get_data ()
 {

Scanner sc = new Scanner(System.in);
 System.out.println("Enter your name");
 name = sc.next();
 System.out.println("Enter the account number");
 account_number = sc.nextLong();
 System.out.println("Choose the account type");
 System.out.println("1. Savings account");
 System.out.println("2. Current account");
 account_type = sc.nextInt();
 }

int return_account_type()
 {

return account_type;
 }

}

class savings extends account
 {

Scanner sc = new Scanner(System.in);
 double amount;

void get_sav_balance()
 {

System.out.println("Enter the amount to be placed in your savings account");
 amount = sc.nextDouble();
 balance += amount;
 }

}

```
void display - sav - blnce ()
{
    System.out.println ("balance =" + balance);
}
```

```
void compute - sav - interest ()
{
    System.out.println ("Interest of 5% shall be
    added to your balance ");
    balance = balance + (.05 * balance);
}
```

```
void withdrawl - sav ()
{
    System.out.println ("Enter the amount to be
    withdrawn ");
    amount = sc.nextDouble ();
    balance = balance - amount;
}
}
```

```
class current extends account
{
    Scanner sc = new Scanner (System.in);
    double amount;
    final double min balance = 5000;
```

```
void get - cur - balance ()
{
    System.out.println ("Enter the amount to
    be placed in your account");
    amount = sc.nextDouble ();
    balance += amount;
}
```



```
void display_usr_balance()
{
    System.out.println("Balance = " + balance);
}
```

```
void compute_usr_service_charges()
{
    if (balance < min_balance)
```

```
    {
        System.out.println("Service tax of Rs. 500  

        shall be levied");
        balance = balance - 500;
    }
```

```
else
{
```

```
    System.out.println("Minimum balance is  

    maintained");
}
```

```
void withdraw_usr()
```

```
{
    System.out.println("Enter the amount to  

    be withdrawn");
```

```
    amount = sc.nextDouble();
    balance = balance - amount;
}
```

```
}
```

```
class Bankmain
```

```
{
```

```
    public static void main (String args[])
    {
```

```
        System.out.println("Enter the bank details")
```



```

account acc = new account();
acc.get_data();
int type = acc.return_account_type();

if (type == 1)
{
    System.out.println("Savings Account");
    Savings sav = new savings();
    sav.get_sav_balance();
    sav.display_sav_blnce();
    sav.compute_sav_interest();
    sav.display_sav_blnce();
    sav.withdrawal_sav();
    sav.display_sav_blnce();
}

```

```

if (type == 2)
{

```

```

    System.out.println("CURRENT ACCOUNT");
    Current cur = new current();
    cur.get_cur_balance();
    cur.display_cur_blnce();
    cur.compute_cur_service_charges();
    cur.display_cur_blnce();
    cur.withdrawal_cur();
    cur.display_cur_blnce();
}

```

```

}

```