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5. Develop a java program to create a class Bank account that maintains two kinds of account for its customers, i.e., Savings and current with interest(), withdraw() and deposit() method in Savings and withdraw() and deposit() in current using Inheritance concept by defining display(), deposit() and withdraw() methods in the account class.

```
import java.util.*;
class account
{
    String name;
    int accno;
    String type;
    double balance;
    account(String name, int accno, String type, double
        balance)
    {
        this.name = name;
        this.accno = accno;
        this.type = type;
        this.balance = balance;
    }
    void deposit(double amount)
    {
        balance += amount;
    }
    void withdraw(double amount)
    {
        if((balance - amount) >= 0)
        {
            balance -= amount;
        }
```

```
        else
        {
            System.out.println("Insufficient balance to withdraw");
        }
    }
    Void display()
    {
        System.out.println("name:"+name+"accno:"
                +accno+"type:"+type+
                "balance"+balance);
    }
}

Class Savings extends account
{
    private static double rate=10;
    private static double time=1;
    Savings(String name, int accno, String type, double
            balance)
    {
        super(name, accno, "Savings", balance);
    }
    Void interest()
    {
        balance+=balance * Java.lang.Math.pow
                (1+rate/100), time);
        System.out.println("balance="+balance);
    }
}

Class current extends account
{
    private static double minbal=1000;
```

```
    private static double service_taxes = 50;
    current(String name, int accno, String type, double
        balance)
    {
        super(name, accno, "current", balance);
    }
    void checkmin()
    {
        if(balance < minbal)
        {
            System.out.println("balance is low service
            taxes are added" + service_taxes);
            balance -= service_taxes;
            System.out.println("balance =" + balance);
        }
    }
}

public class accountmain
{
    public static void main(String[] args)
    {
        Scanner S = new Scanner(System.in);
        System.out.println("enter the name :");
        String name = S.nextLine();
        System.out.println("enter the type of account :");
        String type = S.nextLine();
        System.out.println("enter the accno:");
        int accno = S.nextInt();
        System.out.println("enter the initial balance :");
        double balance = S.nextDouble();
        int ch;
        double amount1, amount2;
```

```
account ao = new account(name, accno, type, balance);
Savings so = new Savings(name, accno, type, balance);
current co = new current(name, accno, type, balance);
while(true)
{
    if(ao.type.equals("Savings"))
    {
        System.out.println("Enter 1. Deposit 2. Withdraw
                3. Interest 4. display");
        System.out.println("enter the choice");
        ch = S.nextInt();
        switch(ch)
        {
            case 1: System.out.println("enter the
                amount to be deposited");
                amount1 = S.nextDouble();
                so.deposit(amount1);
                break;
            case 2: System.out.println("enter the
                amount to be withdrawn");
                amount2 = S.nextDouble();
                so.withdraw(amount2);
                break;
            case 3: so.interest();
                break;
            case 4: so.Display();
                break;
            case 5: System.exit(0);
            default: System.out.println("Invalid input");
                break;
        }
    }
}
```

```
else
{
    System.out.println("enter 1. deposit 2. Withdraw
                        3. display");
    System.out.println("enter the choice");
    ch = S.nextInt();
    switch(ch)
    {
        case 1: System.out.println("enter the amount
                    to be deposited");
                amount1 = S.nextDouble();
                CO.deposit(amount1);
                break;
        case 2: System.out.println("enter the
                amount to be withdrawn");
                amount2 = S.nextdouble();
                CO.checkmin();
                CO.withdraw(amount2);
                break;
        case 3: CO.display();
                break;
        case 4: System.exit(0);
        default: System.out.println("invalid input");
                break;
    }
}
}
}
```

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Output 1

savings

enter the name:
S
enter the type of account:
savings
enter the accno:
1
enter the initial balance:
500
enter 1. deposit 2. withdraw 3. interest 4. display
enter the choice
1
enter the amount to be deposited
500
enter 1. deposit 2. withdraw 3. interest 4. display
enter the choice
4
name: S accno: 1 type: savings balance 1000.0
enter 1. deposit 2. withdraw 3. interest 4. display
enter the choice
2
enter the amount to be withdrawn
500
enter 1. deposit 2. withdraw 3. interest 4. display
enter the choice
4
name: S accno: 1 type: savings balance 500.0
enter 1. deposit 2. withdraw 3. interest 4. display
enter the choice
3
balance = 950.0

enter 1: deposit 2. withdraw 3. Interest 4. display
enter the choice
4
name: S accno: 1 type: savings balance: 950.0
enter 1. deposit 2. withdraw 3. Interest 4. display
enter the choice
5
current a/c -
enter the name:
S
enter the type of account:
current
enter the accno:
1
enter the initial balance:
500
enter 1. deposit 2. withdraw 3. display
enter the choice
3
name: S accno: 1 type: current balance: 500.0
enter 1. deposit 2. withdraw 3. display
enter the choice
1
enter the amount to be deposited
500
enter 1. deposit 2. withdraw 3. display
enter the choice
2
enter the amount to be withdrawn
1000
enter 1. deposit 2. withdraw 3. display
enter the choice
3

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name: S acno: 1 type: current balance: 0.0
enter 1. deposit 2. withdraw 3. display
enter the choice
2
enter the amount to be withdrawn
500
balance in low servicetaxes are added 50.0
balance = -50.0
insufficient balance to withdraw.
enter 1. deposit 2. withdraw 3. display
enter the choice
4

16/1/2024 Shashank Patel CJ 1BM22CS255