Qus 2.

```
import java.util.Scanner;
abstract class Account {
String cust_name;
String acc_no;
String acc_type;
double balance;
double min_balance = 1000.0;
Account (String cust_name, String acc_no, String acc_type,
                double balance) {
    this.cust_name = cust_name;
    this.acc_no = acc_no;
    this.acc_type = acc_type;
    this.balance = balance;
}
abstract void deposit (double amount);
abstract void display ();
abstract void withdrawal (double amount);
}
class Curr_acct extends Account {
double penalty = 50.0;
Curr_acct (String cust_name, String acc_type, double
                balance)
{
    super(cust_name, acc_no, acc_type, balance);
System.out.println("Name of customer : " + cust_name);
System.out.println("Account Number: acc_no");
System.out.println("Account type : " + acc_type);
System.out.println("Balance : " + balance);
}
void deposit (double amount) {
        this.balance += amount;
}
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void withdrawal (double amount) {
this.balance-= amount;
if (this.balance < min_bal)
    imposepenalty();
System.out.println("The current Balance: " + balance);
}

void imposepenalty() {
    this.balance = this.balance - penalty;
    System.out.println("The current balance is
    insufficient, penalty = 100 Rs");
}

void display()
{
    System.out.println()
    {
     System.out.println("Balance is:" + this.balance);
    }
}
class Sav_acct extends Account{
    Sav_acct(String cust_name, String acc_no, String acc_type,
                double balance){
super(cust_name, acc_no, acc_type, balance);
System.out.println("Name of customer :" +cust_name);
System.out.println("Account Number :" + acc_no);
System.out.println("Account type :" + acc_type);
System.out.println("Balance :" + balance);
}

void deposit(double amount){
    this.balance = this.balance+ amount;
    System.out.println("UPDATED balance :" + this.balance);
```

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}
void interest(){
  int rate=10, time=1;
  float ci=(float)(this.balance*Math.pow(1+rate/100.0, time)
                   -this.balance);
System.out.println("The interest amount added to balance is "+ci);
  this.balance=this.balance+ci;
System.out.println("UPDATED BALANCE:"+this.balance);
}
void withdraw(double amount)
{
  this.balance=this.balance-amount;
  System.out.println("UPDATED BALANCE:"+this.balance);
}
void display(){
  System.out.println("Balance:"+this.balance);
}
}
class Test{
  public static void main(String args[]){
    Scanner sc=new Scanner(System.in);
    double amount;
    int flag=0;
    while(flag==0){
    System.out.println("Enter type of Account:\n1:
    Current account\n2: Savings account\n3: Exit");
      int choice=sc.nextInt();
      switch(choice){
      case 1: System.out.println("\nCurrent Acct\n");
        System.out.print("Name:");
        String cname1=sc.next();
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System.out.println("Acct. No: ");
String a_no1 = sc.next();
System.out.println("Enter the balance amount ");
double balance_amt = sc.nextDouble();
Curr_acct c = new Curr_acct(name1, a_no1, "current",
                            balance_amt);

int flag = 0;
while(flag1 == 0)
{
System.out.println("Enter your choice \n1.Deposit Amount \n2.
Display balance \n3.Withdraw \n4.Exit");
int choice1 = sc.nextInt();
switch(choice1)
{
case 1: System.out.println("Enter amount to be
        deposited:");
amount = sc.nextDouble();
c.deposit(amount);
        break;

case 2:
        c.display();
        break;
case 3:
        System.out.println("Enter amount you want to
        withdraw:");
amount = sc.nextDouble();
c.withdraw(amount);
        break;
default:
flag1 = 1;
}
}
break;
```

```
case 2:
System.out.println("\n Savings Account");
System.out.println("Name:");
String name2 = sc.next();
System.out.println("Acc. No.:");
String a_no2 = sc.next();
System.out.println("Enter the balance amount");
double balance_amt2 = sc.nextDouble();
Sav_acct s = new Sav_acct(name2, a_no2, "Savings",
                          balance_amt2);
int flag2 = 0;
while (flag2 == 0)
{
System.out.println("Enter your choice\n Deposit Amount\n Display
Balance\n 3. Withdraw\n 4. Exit");
int choice2 = sc.nextInt();
switch(choice2)
{
case 1: System.out.println("Amount to be deposited:");
        amount = sc.nextDouble();
        s.deposit(amount);
        break;
case 2: s.display()
        s.interest()
        break;
case 3: System.out.println("Enter amount to
                withdraw:");
        amount = sc.nextDouble();
        s.withdraw(amount);
        break;
default: flag2=1;
```

```
        }
    }
        break;
        default : flag = 1;
    }
  }
 }
}
```