LAB-4

```
abstract class shape{
    int x, y;
    abstract void printArea();
}
class rectangle extends Shape
{
    rectangle(int a, int b){
        x = a;
        y = b;
    }
    void printArea(){
        System.out.println("Area of rectangle is" + (x*y));
    }
}
class triangle extends shape
{
    triangle (int a, int b){
        x = a;
        y = b;
    }
    void printArea(){
        System.out.println("Area of triangle is"
            + (0.5*x*y));
    }
}
class circle extends shape
{
    circle(int va){
        x = a;
    }
```

```
Void printArea(){
    System.out.println("Area of circle is" + (3.142*
                                    r*r));
}
}
public class Main
{
    public Static Void main(String args[]){

        rectangle rect = new rectangle(5,5);
        triangle tri = new triangle(6,3);
        Circle Cir = new Circle(5);
        rect.printArea();
        tri.printArea();
        Cir.printArea();
    }
}
```

LAB-5

```
import java.util.Scanner;
abstract class account{
String accname, acctype;
long accnum;
double balance;
final int minbal = 1000;
account(String name, long num, double bal, String
                                              type){
    accname = name;
    accnum = num;
    balance = bal;
    acctype = type;
}
  abstract Void addBal(double amt);
  abstract Void dispBal();
  abstract Void withdraw(double amt);
}
Class Curr_acct extends account{
    Curr_acct(String name, long num, double bal, String type)
{
    Super(name, num, bal, type);
System.out.println("name:" + accname + "\naccnum:
    +"\nbalance:" + balance + "\nacctype: Current");
}
  Void addBal(double amount){
    balance = balance + amount;
}
  Void dispBal(){
    System.out.println("Your balance is" + balance);
}
```

```
Void withdraw(double amount){
    if(balance < amount){
        System.out.println("You dont have enough
                                balance");
    System.out.println("Balance is" + balance);
        return;
    }
        balance = balance - amount;
    System.out.println("balance =" + balance);
    if (balance < minbal){
    System.out.println("Penalty of Rs." + (balance * 0.01)
            + "as balance is less than minimum");
        balance = balance - balance * 0.01;
    System.out.println("Current balance =" + balance);
    }
  }
}
Class Sav_acct extends account{
  Sav_acct(String name, long num, double bal){
      super(name, num, bal, "Savings");
System.out.println("name:" + accname + "\taccno:" +
    accnum + "\tbal:" + bal + "\ttype:" + acctype);
}
  Void addBal(double amount){
      balance = balance + amount;
          interest();
  }
  Void interest(){
      int t=2;
      balance = balance * Math.Pow(1+(0.2), t);
  }
```

```
Void dispBal(){
    System.out.println("Your balance is:"+balance);
}
Void withdraw(double amount){
    balance = balance - amount;
    System.out.println("Balance = "+balance);
}
}

public class Main
{
    public static void main(String args[]){
    Scanner sc = new Scanner(System.in);
    Curr_acct c = new Curr_acct("jay",123456,
                    3000.0,"Current");
    double amount;
     int flag = 0;
    while(flag == 0){
    System.out.println("1.Add Bal \n 2. DisplayBal \n
          3: withdraw \n 4.CheckBook \n 5. quit");
     int ch = sc.nextInt();
     Switch(ch){
     case 1:
    System.out.println("Enter amount to be withdrawn:");
     amount = sc.nextDouble();
     c.withdrawn(amount);
     break;

     Case 2:
      C.dispBal();
       break;
```

```
Case 3:
System.out.println("Enter amount to be withdrawn");
amount = Sc.nextDouble();
C.withdraw(amount);
break;
default:
flag = 1;
}
}
Sav_acct S = new Sav_acct("jennie", 500676, 7000);
flag = 0;
while(flag == 0){
System.out.println("1. AddBal\n 2. displayBal\n
3. withdraw\n 4. quit");
int ch = Sc.nextInt();
Switch (ch){
Case 1:
System.out.println("Enter amt to be added:");
amount = Sc.nextDouble();
S.addBal(amount);
break;
Case 2:
S.dispBal();
break;
Case 3:
System.out.println("Enter amt to be
withdrawn:");
amount = Sc.nextDouble();
S.withdraw(amount);
break;
default: flag = 1;
}}}}
```