09-12-22

4. SHAPE

```
import java.util.Scanner;

abstract class Shape{

    int x,y;
    double area;
    abstract void printarea();

}

class Rectangle extends Shape {

    void printarea(){

        area = x * y;
        System.out.println("Area of the Rectangle is =
                           "+area);

    }

}

class Triangle extends Shape {

    void printarea(){

    area = 0.5 * x * y;
    System.out.println("Area of the Triangle is
                       = "+ area);

    }

}
```

class Circle extends Shape {

void printArea() {
area = 3.14 * x * x;
System.out.println("Area of the circle is :" + area);

}

}

class Area {

public static void main (String [] args) {
int choice;
Scanner s = new Scanner (System.in);

System.out.printf("\n1: Rectangle \n2: Triangle \n3: Circle 0n");

choice = s.nextInt();

switch (choice) {

case 1:
Rectangle r1 = new Rectangle();
System.out.println("Enter the length and width of the rectangle:");
r1.x = s.nextInt();
r1.y = s.nextInt();
r1.printArea();
break;

case 2:

```
Triangle t1 = new Triangle ();
System.out.println("Enter the height and base of the
                    Triangle:");
t1.x = s.nextInt();
t1.y = s.nextInt();
t1.printArea();
break;
```

case 3:

```
Circle c1 = new Circle ();
System.out.println("Enter the radius of the
                    circle:");
c1.x = s.nextInt();
c1.printArea();
break;

default : System.err.println("Enter a valid Input!");

    }
}
}
```

OUTPUT.

1: Rectangle
2: Triangle
3: Circle

1
Enter the length and width of the rectangle
5 6

Area of the rectangle is = 30.0

2
Enter the height and base of the triangle
3 4

Area of triangle is 6.0

3
Enter the radius of circle
Area of the circle is = 153.93 75

5 Bank program.

```
import java.util.Scanner;
import java.lang.Math;

class Account {

    String customer_name = new String();
    String account_type = new String();
    int account_number;
}

class Current extends Account {

    int balance;
    Scanner s = new Scanner(System.in);

    Current(String type) {

        System.out.println("Enter the customer name and
            Account number:");
        customer_name = s.next();
        account_number = s.nextInt();
        account_type = type;
        balance = 0;

    }

    void deposit() {
        System.out.println("Enter the amount to be
            deposited:");
        balance += s.nextInt();
```

```
if (balance < 500) {
    System.out.println("₹500 is the minimum
    charge. Account balance falls
    below minimum");
}

void withdraw() {
    int with;
    System.out.println("Enter the amount to be
        withdrawn:");
    if (with > balance) {
        System.out.println("Balance is less than
        withdrawn amount");
    }
}
}

class Savings extends Account {
    double balance;
    Scanner s = new Scanner(System.in);
    Savings(String type) {
        System.out.println("Enter customer
        name and account number:");
```

```
customer_name = s.next();
account_number = s.nextInt();
account_type = type;
balance = 0;

}

void display(){

System.out.printf("\n Name: %s \n Account number: %d
\n Account type: %s \n Balance: %.2f\n", customer_name,
account_number, account_type, balance);

}

void withdraw(){

    int with;

    System.out.println("Enter the amount to withdraw:");
    with = s.nextInt();
    if (with > balance){
        System.out.println("Balance is less than
        withdraw amount!");

    }

}

void interest(){
```