Practice Test 27/07/2018

1.Create a class named 'Student' with String variable 'name' and integer variable 'roll\_no'. Assign the value of roll\_no as '2' and that of name as "John" by creating an object of the class Student.

Ans:-

**package** com.org;

**public** **class** Student {

**int** Roll\_no;

String name;

**public** **void** main()

{

System.***out***.println("Student name is : " +name);

System.***out***.println("Student Roll number is : " +Roll\_no);

}

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

Student s = **new** Student();

s.name="john";

s.Roll\_no=2;

s.main();

}

}

2.

Assign and print the roll number, phone number and address of two students having names "Sam" and "John" respectively by creating two objects of class 'Student'.

Ans:-

package com.org;

import java.util.Scanner;

program for displaying information of sam && john

class Student

{

String name;

String address;

String phone;

public Student(String name,String address,String phone)

{

this.address=address;

this.name=name;

this.phone=phone;

}

void showData()

{

System.out.println("name ="+name);

System.out.println("address="+address);

System.out.println("phone="+phone);

}

}

public class StudentInfo {

public static void main(String[] args) {

Student sam=new Student("sam","newyork","1234566");

Student john=new Student("john","london","56748");

System.out.println("Information of sam=");

sam.showData();

System.out.println("Information of john");

john.showData();

}

}

3.

Write a program to print the area and perimeter of a triangle having sides of 3, 4 and 5 units by creating a class named 'Triangle' without any parameter in its constructor.

**package** com.org;

**public** **class** Triangle {

**int** a,b,c,s;

**double** per,area;

**public** **void** Perimeter()

{

per=a+b+c;

System.***out***.println("perimeter of triangle is:"+per);

}

**public** **void** Area()

{

s=(a+b+c)/2;

area=Math.sqrt(s\*(s-a)\*(s-b)\*(s-c));

System.***out***.println("Area of a Triangle is : "+area);

}

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

Triangle t = **new** Triangle();

t.a=3;

t.b=4;

t.c=5;

t.Perimeter();

t.Area();

}

}

4.

Write a program to print the area and perimeter of a triangle having sides of 3, 4 and 5 units by creating a class named 'Triangle' with constructor having the three sides as its

parameters.

Ans:-

**package** com.org;

**public** **class** Triangle {

**int** a,b,c,s;

**double** per,area;

**public** Triangle(**int** a,**int** b,**int** c)

{

**this**.a=a;

**this**.b=b;

**this**.c=c;

}

**void** doPerimeter()

{

per=a+b+c;

System.***out***.println("perimeter of triangle is:"+per);

}

**void** doArea()

{

s=(a+b+c)/2;

area=Math.*sqrt*(s\*(s-a)\*(s-b)\*(s-c));

System.***out***.println("Area of a Triangle is : "+area);

}

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

Triangle t = **new** Triangle(3,4,5);

t.a=3;

t.b=4;

t.c=5;

t.doPerimeter();

t.doArea();

}

}

5.

Write a program to print the area of a rectangle by creating a class named 'Area' taking the values of its length and breadth as parameters of its constructor and having a method named 'returnArea' which returns the area of the rectangle. Length and breadth of rectangle are entered through keyboard.

Ans:-

**package** com.org;

**import** java.util.Scanner;

**public** **class** Area2 {

**float** lenght,breadth,A;

**public** Area2( **float** lenght,**float** breadth)

{

**this**.lenght=lenght;

**this**.breadth=breadth;

A=lenght\*breadth;

System.***out***.println("Area of reactangle is : "+A);

}

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

**float** lenght,breadth;

Scanner sc = **new** Scanner(System.***in***);

System.***out***.println("Enter the lenght of rectangle:");

lenght=sc.nextInt();

System.***out***.println("Enter the breadth of reactangle:");

breadth=sc.nextInt();

Area2 a = **new** Area2( lenght,breadth);

}

}

6.

Print the average of three numbers entered by user by creating a class named 'Average' having a method to calculate and print the average.

Ans:-

**package** com.org;

**import** java.util.Scanner;

**public** **class** Average {

**void** doCalculate()

{

**int** n,sum=0;

**double** avg;

System.***out***.println("How many elements you want...? ");

Scanner sc = **new** Scanner(System.***in***);

n=sc.nextInt();

**int** a[] = **new** **int**[n];

System.***out***.println("Enter the numbers to calculate avrage");

**for** (**int** i = 0; i < n; i++)

{

a[i]=sc.nextInt();

sum=sum+a[i];

}

avg=sum/n;

System.***out***.println("Avrage of number is:"+avg);

}

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

Average A = **new** Average();

A.doCalculate();

}

}

7.  
Write a program by creating an 'Employee' class having the following methods and print the final salary.  
1 - 'getInfo()' which takes the salary, number of hours of work per day of employee as parameter  
2 - 'AddSal()' which adds $10 to salary of the employee if it is less than $500.  
3 - 'AddWork()' which adds $5 to salary of employee if the number of hours of work per day is more than 6 hours.

Ans:-

package com.org;

import java.util.Scanner;

public class Employee {

private int sal,Nhrs;

public void getInfo(int sal,int Nhrs)

{

this.Nhrs=Nhrs;

this.sal=sal;

System.out.println("Salary of emplyoee is : "+sal);

System.out.println("Emplyoee's number of hours per day : "+Nhrs);

}

void AddSal()

{

if(sal<500)

{

sal=sal+10;

System.out.println("Final salary of emplyoee is : "+sal);

}

else

{

System.out.println("Final salary of emplyoee is : "+sal);

}

}

void AddWork()

{

if(Nhrs>6)

{

sal=sal+5;

System.out.println("Final salary with overtime is : "+sal);

}

else

{

System.out.println("Final salary with overtime is : "+sal);

}

}

public static void main(String[] args) {

Employee e = new Employee();

Scanner sc = new Scanner(System.in);

System.out.println("Enter salar of emplyoee:");

int sal=sc.nextInt();

System.out.println("Enter number of hours per day of employee:");

int Nhrs=sc.nextInt();

e.getInfo(sal, Nhrs);

e.AddSal();

e.AddWork();

}

}

8.  
Write a program that would print the information (name, year of joining, salary, address) of three employees by creating a class named 'Employee'. The output should be as follows:  
Name        Year of joining        Address  
Robert            1994                64C- WallsStreat  
Sam                2000                68D- WallsStreat  
John                1999                26B- WallsStreat

Ans:-

package com.org;

public class Employee {

public void empDetails(String Name,String YearOfJoining,String Address)

{

System.out.println(Name+" "+YearOfJoining+" "+Address);

}

public static void main(String[] args) {

Employee e = new Employee();

System.out.println("Name Year Of Joining Address");

e.empDetails("Robert", "1994", " 64C- WallsStreat");

e.empDetails("sam ", " 2000", " 68D- WallsStreat");

e.empDetails("john ", " 1999", " 26B- WallsStreat");

}

}

9. **What will be the output of this program?**

[?](https://javaconceptoftheday.com/java-practice-questions-on-classes-and-objects/)

|  |  |
| --- | --- |
|  | class A  {      static int i;        static      {          System.out.println(1);            i = 100;      }  }    public class StaticInitializationBlock  {      static      {          System.out.println(2);      }        public static void main(String[] args)      {          System.out.println(3);            System.out.println(A.i);      }  }  Ans:-  Output:-2  3  1  100 |

10. **What happens when you compile the below class?**

class A

{

    int i;

    static

    {

        System.out.println(i);

    }

}

Output:In JDK 1.8 it will compile but at the run time it will give you error that main method is not found because JVM fisrt search for the main method then execute your code

Ans:- output is 0. It run in JDK version1.7

11. **Is the below code written correctly?**

class A

{

    static

    {

        static

        {

            System.out.println(1);

        }

    }

}

Output:In JDK 1.8 it will compile but at the run time it will give you error that main method is not found because JVM fisrt search for the main method then execute your code

Ans:- output is 1. It run in JDK version1.7

Ans:-Nesting of static block is not allowed in java

12. **What will be the outcome of the following program?**

public class A

{

    static

    {

        System.out.println(1);

    }

    static

    {

        System.out.println(2);

    }

    static

    {

        System.out.println(3);

    }

    public static void main(String[] args)

    {

        A a;

    }

}

Ans:-

Output:-1

2

3

13. **What will be the output of this program?**

class A

{

    static int first;

    static String second;

    static

    {

        System.out.println(1);

        first = 100;

    }

    static

    {

        System.out.println(2);

        second = "SECOND";

    }

}

public class StaticInitializationBlock

{

    static

    {

        System.out.println(3);

    }

    public static void main(String[] args)

    {

        System.out.println(4);

        System.out.println(A.first);

        System.out.println(A.second);

    }

}

Ans:-

Output:-3

4

1

100

2

SECOND

14. class A

{

    static int i;

    static

    {

        i = 100;

        System.out.println(1);

    }

    static void staticMethod()

    {

        System.out.println(i);

        System.out.println(2);

    }

}

public class B

{

    static

    {

        System.out.println(3);

    }

    public static void main(String[] args)

    {

        System.out.println(4);

        System.out.println(A.i);

        A.staticMethod();

    }

}

Ans:-Output:-3

4

1

100

100

2

15.

**How many static initialization blocks are there in the below Class A?**

class A

{

    static int a = 50;

    static

    {

        a = 50;

    }

    static

    {

        a = 50;

    }

}

Ans:-

Two static block is there.