# Write and Execute java program to swap values of two variables

package java2020;

public class Swap {

public static void main(String[] args) {

int x=10, y=20;// x and y are to swap

int temp;

System.out.println("before swapping numbers: x = "+x +" and y = "+ y);

/\*swapping \*/ temp = x; x = y; y = temp;

System.out.println("After swapping numbers: x = "+x +" and y = "+ y);

}

}

**Design and Develop Java code to demonstrate types of Constructors.**

package java2020; class rectangle1 { int length; int breadth; rectangle1()

{

System.out.println("I am constructor");

}

rectangle1(int a,int b)

{

length=a; breadth=b; int area=length\*breadth;

System.out.println("The area is:"+area);

}

}

public class Cons { public static void main(String[] args) {

rectangle1 ob=new rectangle1(); rectangle1 ob1=new rectangle1(23,45);

}

}

# Demonstration of output without use of “this” operator

package java2020; class Student

{

int rollno; String name; float fee;

Student(int rollno,String name,float fee)

{

rollno =rollno;

name=name;

fee=fee;

}

void display()

{

System.out.println(rollno+" "+name+" "+fee);

}

}

public class TestThis {

public static void main(String[] args) {

Student s1=new Student(111,"ankit",5000f); Student s2=new Student(112,"sumit",6000f); s1.display(); s2.display()}

# Autoboxing and Unboxing

package java2020;

public class Auto\_Unbox {

public static void main(String[] args) {

int a=50;

Integer a2=new Integer(a);//Boxing

Integer a3=5;//Boxing

System.out.println("a2= "+a2+" a3= "+a3);

System.out.println("Unboxing"); Integer i=new Integer(50); int a1=i; //unboxing

System.out.println("a1="+a1);

}

}

}

# Loop and Conditional Statements

package java2020;

public class If\_Loop {

public static void main(String[] args) {

int num = 1;

//Demonstration of while

System.out.println("Statement while Loop!");

while(num <= 100)

{

System.out.println(num);

num++;

}

System.out.println("Statement Do while Loop!");

num=1; do {

System.out.println(num);

num++;

}

while(num <= 100);

}

}

**Java Program to illustrate how to declare, instantiate, initialize and traverse the Java array.**

package java2020;

public class Testarray {

public static void main(String[] args) { int a[]=new int[5];//declaration and instantiation a[0]=10;//initialization

a[1]=20; a[2]=70; a[3]=40; a[4]=50;

//traversing array for(int i=0;i<a.length;i++)

{

System.out.println(a[i]);

}

}

}

# Design a Employee Class and demonstrate inheritance using Programmer class

package java2020; class employee {

float salary=40000;

}

class Programmer extends employee

{

int bonus=10000;

public static void main(String args[])

{

Programmer p=new Programmer();

System.out.println("Programmer salary is:"+p.salary);

System.out.println("Bonus of Programmer is:"+p.bonus);

}

}

# Java Runtime Polymorphism: BIKE

package java2020;

class Bike {

void run()

{

System.out.println("running");

}

}

class Splendor extends Bike

{

void run()

{

System.out.println ("running safely with 60km");

}

public static void main(String args[])

{

Bike b = new Splendor ();

b.run();

}

}