### Day 8- 108415746-Srilekha Bhimavarapu

### JAVA OOPS

### TASK 21

public class Main {

public static void main(String[] args)

{

int[] arr = { 11, 22, 33, 44, 55 };

int n = arr.length;

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

System.out.print(arr[i] + " ");

}

}

OUTPUT

11 22 33 44 55

### TASK 22

### class Task022 {

public static void main(String[] args)

{

int[] arr;

arr = new int[5];

arr[0] = 110;

arr[1] = 220;

arr[2] = 320;

arr[3] = 450;

arr[4] = 500;

for (int i = 0; i < arr.length; i++)

System.out.println("Element at index "

+ i + " : " + arr[i]);

}

}

OUTPUT

Element at index 0 : 110

Element at index 1 : 220

Element at index 2 : 320

Element at index 3 : 450

Element at index 4 : 500

### TASK 23

public class Task023 {

public static void main(String[] args){

Student sobj1 = new Student();

Student sobj2 = new Student();

Student sobj3 = new Student();

Student[] arr;

arr = new Student[5];

arr[0] = new Student(1, "srikar");

arr[1] = new Student(2, "hari");

arr[2] = new Student(3, "ramesh");

arr[3] = new Student(4, "prakash");

arr[4] = new Student(5, "mohit");

for (int i = 0; i < arr.length; i++)

System.out.println("Element at " + i + " : { "

+ arr[i].roll\_no + " "

+ arr[i].name+" }");

}

}

class Student {

public int roll\_no;

public String name;

Student(int Roll\_no, String Name){

this.roll\_no = Roll\_no;

this.name = Name;

}

Student(){

roll\_no =0;

name = “ ”;

}

}

OUTPUT

Element at 0 : { 1 srikar }

Element at 1 : { 2 hari }

Element at 2 : { 3 ramesh }

Element at 3 : { 4 prakash }

Element at 4 : { 5 mohit }

### TASK 24

public class Task024{

public static void main (String[] args){

Student[] myStudents = new Student[]{

new Student("Dharma"),new Student("sanvi"),

new Student("Rupa"),new Student("Ajay")

};

for(Student m:myStudents){

System.out.println(m);

}

}

}

class Student{

public String name;

Student(String name){

this.name = name;

}

// @Override

public String toString(){

return name;

}

}

OUTPUT

Dharma

sanvi

Rupa

Ajay

### TASK 25

public class Task025 {

public static void main(String[] args)

{

int[] arr = new int[3];

arr[0] = 10;

arr[1] = 20;

arr[2] = 30;

System.out.println(

"Trying to access element outside the size of array");

System.out.println(arr[3]);

}

}

**OUTPUT**

Trying to access element outside the size of array

ERROR!

Exception in thread "main" java.lang.ArrayIndexOutOfBoundsException: Index 3 out of bounds for length 3

import java.io.\*;

class Task025 {

public static void main(String[] args){

int[][] arr = new int[3][3];

System.out.println("Rows : " + arr.length);

System.out.println("Columns : " + arr[0].length);

}

}

OUTPUT

Rows : 3

Columns : 3

### TASK 26

public class Task026 {

public static void main(String args[])

{

int arr[][] = { { 5, 6, 8 }, { 10, 11, 31 }, { 5, 4, 2 } };

for (int i = 0; i < 3; i++) {

for (int j = 0; j < 3; j++)

System.out.print(arr[i][j] + " ");

System.out.println();

}

}

}

OUTPUT

5 6 8

10 11 31

5 4 2

### TASK 27

public class Task027 {

public static void main(String args[])

{

int arr[] = { 30, 11, 32, 25, 54 };

sum(arr);

}

public static void sum(int[] arr)

{

int sum = 0;

for (int i = 0; i < arr.length; i++)

sum += arr[i];

System.out.println("sum of array values : " + sum);

}

}

OUTPUT

sum of array values: 152

### TASK 28

class Task28 {

public static void main(String args[])

{

int arr[] = m1();

for (int i = 0; i < arr.length; i++)

System.out.print(arr[i] + " ");

}

public static int[] m1()

{

return new int[] { 14, 22, 83 };

}

}

OUTPUT

14 22 83

### TASK 29

class Test {

public static void main(String args[])

{

int intArray[] = { 41, 92, 53 };

int cloneArray[] = intArray.clone();

System.out.println(intArray == cloneArray);

for (int i = 0; i < cloneArray.length; i++) {

System.out.print(cloneArray[i] + " ");

}

}

}

OUTPUT

false

41 92 53

### TASK 30

class Test {

public static void main(String args[])

{

int intArray[][] = { { 6, 9, 5 }, { 3, 8 } };

int cloneArray[][] = intArray.clone();

System.out.println(intArray == cloneArray);

System.out.println(intArray[0] == cloneArray[0]);

System.out.println(intArray[1] == cloneArray[1]);

}

}

OUTPUT

false

true

true

### TASK 31

public class Task031 extends Calculation {

public void multiplication(int x, int y) {

z = x \* y;

System.out.println("The product of the given numbers:"+z);

}

public static void main(String args[]) {

int a = 20, b = 10;

Task031 demo = new Task031();

demo.addition(a, b);

demo.Subtraction(a, b);

demo.multiplication(a, b);

}

}

public class My\_Calculation2 extends Calculation {

public void multiplication(int x, int y) {

z = x \* y;

System.out.println("The product of the given numbers:"+z);

}

public static void main(String args[]) {

int a = 20, b = 10;

My\_Calculation2 demo = new My\_Calculation2();

demo.addition(a, b);

demo.Subtraction(a, b);

demo.multiplication(a, b);

}

}

class Calculation {

int z;

public void addition(int x, int y) {

z = x + y;

System.out.println("The sum of the given numbers:"+z);

}

public void Subtraction(int x, int y) {

z = x - y;

System.out.println("The difference between the given numbers:"+z);

}

}

OUTPUT

The sum of the given numbers:30

The difference between the given numbers:10

The product of the given numbers:200

### TASK 32

public class Task032 extends Calculation {

public void multiplication(int x, int y) {

z = x \* y;

System.out.println("The product of the given numbers:"+z);

}

public static void main(String args[]) {

int a = 20, b = 10;

Task032 demo = new Task032();

demo.addition(a, b);

demo.Subtraction(a, b);

demo.multiplication(a, b);

demo.division(a, b);

}

}

public class Calculation extends clock{

int z;

public void addition(int x, int y) {

z = x + y;

System.out.println("The sum of the given numbers:"+z);

}

public void Subtraction(int x, int y) {

z = x - y;

System.out.println("The difference between the given numbers:"+z);

}

}

public class clock {

int z;

public void division(int x, int y) {

z = x / y;

System.out.println("The division of the given numbers:"+z);

}

}

OUTPUT

The sum of the given numbers:30

The difference between the given numbers:10

The product of the given numbers:200

The division of the given numbers:2

### TASK 33

public class Task033 extends Customer {

void billing(){

String items = "onions";

int cost = 30;

super.items = "Potatoes";

super.cost = 50;

super.purchage\_list();

System.out.println(items);

System.out.println(cost);

System.out.println("\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*");

System.out.println(super.items);

System.out.println(super.cost);

// return 0;

}

public static void main(String[] args){

Customer cobj =new Customer();

cobj.purchage\_list();

Task033 tobj = new Task033();

tobj.billing();

}

}

class Customer{

int cost = 40;

String items = "Tomatoes";

Customer(){

System.out.println("Constructor called");

}

void purchage\_list(){

System.out.println("cost of tomatoes in Customer class is "+ cost);

}

}

OUTPUT

Constructor called

cost of tomatoes in Customer class is 40

Constructor called

cost of tomatoes in Customer class is 50

onions

30

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Potatoes

50

### TASK 033\_1

public class Task033\_1 extends Superclass{

Task033\_1(int var) {

super(var);

}

public static void main(String[] args){

Superclass sobj = new Superclass(100);

sobj.getVar();

}

}

class Superclass{

int var;

Superclass(int var){

this.var = var;

}

public void getVar(){

System.out.println("var value in super class is "+ var);

}

}

OUTPUT

var value in super class is 100

public class Task033\_1 extends Superclass{

Task033\_1(int var) {

super(var);

}

public static void main(String[] args){

Superclass sobj = new Superclass(100);

sobj.getVar();

Task033\_1 tobj = new Task033\_1(200);

tobj.getVar();

}

}

class Superclass{

int var;

Superclass(int var){

this.var = var;

}

public void getVar(){

System.out.println("var value in super class is "+ var);

}

}

OUTPUT

var value in super class is 100

var value in super class is 200

### TASK 34

public class Task034{

void add(int x, int y){

System.out.println(x+ " &&& "+ y);

}

void add(int x, int y, int z ){

System.out.println(x + " $$$ "+ y+ " $$$"+ z);

}

public static void main(String[] args){

Task034 tobj = new Task034();

tobj.add(10,20);

tobj.add(100,200,300);

}

}

OUTPUT

10 &&& 20

100 $$$ 200 $$$300

### TASK 35

public class Task035{

public static void add(int x, int y){

System.out.println(x + " %%%%%% "+ y);

}

public static void add(char x, char y){

System.out.println(x + " ###### "+ y);

}

public static void main(String[] args){

add(10, 50);

add('R', 'R'); //Calling the character overload

}

}

OUTPUT

10 %%%%%% 50

R ###### R

### ADD ONS

### SUPERCLASS.JAVA

### TASK112

package JAVA\_CODES;

//driver class

public class Task112{

public static void main(String[] args){

System.out.println("Driver class called");

Superclass sobj = new Superclass();

sobj.superMethod();

System.out.println("Driver class ended");

}

}

class Superclass{

Superclass(){

System.out.println("super class constructor called");

}

void superMethod(){

System.out.println("superMethod called");

}

}

OUTPUT

Driver class called

super class constructor called

superMethod called

Driver class ended

### TASK 36

public class Task036 {

void add(int x, float y) {

System.out.println("int x, float y = " + x + ","+y);

}

void add(float x, int y) {

System.out.println("float x, int y = " + x + "," +y);

}

public static void main(String[] args) {

Task036 obj = new Task036();

obj.add(100, 80.80f);

obj.add(10.50f, 60);

}

}

OUTPUT

int x, float y = 100,80.8

float x, int y = 10.5,60

### TASK 41

import java.io.\*;

class Myclass

{

public static void main(String[] args)

{

TestClass t = new TestClass();

t.display();

System.out.println(t.tax);

}

}

interface testInterface {

final int tax = 10;

void display();

}

class TestClass implements testInterface {

public void display(){

System.out.println("Myclass");

}

}

OUTPUT

Myclass

10