**OOPS ASSIGNMENT**

1.

package assignment\_1;

public class constructor{

String greeting;

public constructor(){

this.greeting = "Hello!";

}

public constructorOverloading(String language) {

if(language == "es"){

this.greeting = "Hola!";

}

else if(language == "fr"){

this.greeting = "Bonjour!";

}

else {

System.out.println("Invalid language");

}

}

public static void main(String args[]){

constructorOverloading object = new constructorOverloading();

System.out.println(object.greeting);

}

}

2.

import java.util.\*;

Public class Animals

{

String name;

int height;

String type;

Public String eat()

{

return(“the animal is :”+name+” of ”+height+” and is of a type ”+type);

}

Public static void main(String [] args)

{

animals herbi=new animals();

herbi.name=”Panda”;

herbi.height=5.5;

herbi.type=”Herbivore”;

System.out.println(herbi.eat());

}

}

3)

import java.util.\*;

class Animal

{

void eat()

{

System.out.println("Animal eat");

}

void eat(Animal a)

{

System.out.println("Animal eat - overloaded");

}

class Horse extends Animal

{

void eat()

{

System.out.println("Horse eat");

}

void eat(Horse h)

{

System.out.println("Horse eat - overloaded");

}

}

public class AnimalTest

{

public static void main(String[] args)

{

Animal a = new Horse();

Horse h = new Horse();

a.eat();

h.eat();

}

}

4)

import java.util.\*;

class Student

{

int marks;

}

public class ArrayOfObjects

{

public static void main(String args[])

{

Student std[] = new Student[3];

std[0] = new Student();

std[1] = new Student();

std[2] = new Student();

std[0].marks = 70;

std[1].marks = 80;

std[2].marks = 90;

System.out.println("3 students average marks: " + ((std[0].marks+std[1].marks+std[2].marks)/3);

}

}

5)

import java.util.\*;

import java.io.\*;

class Test

{

public static void main (String[] args)

{

String s= "iamverylazyno";

// or String s= new String (“iamverylazyno");

// Returns the number of characters in the String.

System.out.println("String length = " + s.length());

// Returns the character at ith index.

System.out.println("Character at 3rd position = "

+ s.charAt(3));

// Return the substring from the ith index character

// to end of string

System.out.println("Substring " + s.substring(3));

// Returns the substring from i to j-1 index.

System.out.println("Substring = " + s.substring(2,5));

// Concatenates string2 to the end of string1.

String s1 = "Hello";

String s2 = "Buddy";

System.out.println("Concatenated string = " +

s1.concat(s2));

// Returns the index within the string

// of the first occurrence of the specified string.

String s4 = "Learn Share Learn";

System.out.println("Index of Share " +

s4.indexOf("Share"));

// Returns the index within the string of the

// first occurrence of the specified string,

// starting at the specified index.

System.out.println("Index of a = " +

s4.indexOf('a',3));

// Checking equality of Strings

Boolean out = "chandu".equals("chandu");

System.out.println("Checking Equality " + out);

out = "chandu".equals("chandu");

System.out.println("Checking Equality " + out);

out = "CHANDU".equalsIgnoreCase("chanDU");

System.out.println("Checking Equality" + out);

int out1 = s1.compareTo(s2);

System.out.println("If s1 = s2" + out);

// Converting cases

String word1 = "CHANDU";

System.out.println("Changing to lower Case " +

word1.toLowerCase());

// Converting cases

String word2 = "hello";

System.out.println("Changing to UPPER Case " +

word1.toUpperCase());

// Trimming the word

String word4 = " Learn Share Learn ";

System.out.println("Trim the word " + word4.trim());

// Replacing characters

String str1 = "freakshow";

System.out.println("Original String " + str1);

String str2 = "freakshow".replace('f' ,'g') ;

System.out.println("Replaced f with g -> " + str2);

}

}

6)

class buffer{

public static void main(String args[]){

StringBuffer s=new StringBuffer(&quot;PrograMMing&quot;);

int l=s.length();

System.out.println(&quot;String length is&quot;+&quot; &quot;+l);

int capacity=s.capacity();

System.out.println(&quot;String capacity is&quot;+&quot; &quot;+capacity);

s.setLength(7);

System.out.println(&quot;Length set to 5&quot;+&quot; &quot;+s);

char c=s.charAt(5);

System.out.println(&quot;Character at index 4&quot;+&quot; &quot;+c);

s.setCharAt(3,&#39;r&#39;);

System.out.println(&quot;replacing the character&quot;+&quot; &quot;+s);

StringBuffer cs=new StringBuffer(&quot;new&quot;);

s.append(cs);

System.out.println(s);

s.reverse();

System.out.println(&quot;reverse of the string&quot;+&quot; &quot;+s);

System.out.println(&quot;substring is&quot;+&quot; &quot;+s.substring(4));

s.delete(3,7);

System.out.println(s);

s.replace(3,7,&quot;srish&quot;);

System.out.println(&quot;replacing the string&quot;+&quot; &quot;+s);

8)

class operations{

int a=8,b=5,c,d=3,e=1,f;

void add(){

c=a+b;

f=c-a;

}

void get(){

System.out.println(c);

}}

class op extends operations{

void get(){

System.out.println(f);

}}

class m{

public static void main(String args[]){

operations o=new op();

o.add();

o.get();

}}

9)

public class op{

private int a=10,b=3;

int c=4,d=1,e,f,g;

protected void get(){

e=a+b;

}

}

class op2 extends op{

protected void get1(){

f=c+d;

}}

class op3 extends op2{

public void get2(){

g=e-f;

System.out.println(g);

}

}

class operations{

public static void main(String args[]){

op3 o=new op3();

o.get();

o.get1();

o.get2();

}

}

10)

interface inter{

void get();

}

interface inter1{

void show();

}

class inherit implements inter,inter1{

public void get(){

System.out.println(&quot;multiple inheritance&quot;);

}

public void show(){

System.out.println(&quot;multiple inheritance though interface&quot;);

}

}

class mi{

public static void main(String args[]){

inherit in=new inherit();

in.get();

in.show();

}}