**Exp.No:4. Write a program in Java to demonstrate method overloading and constructors overloading.**

**Source Code: a. Method overloading**

**class** MethodOv{

// this method accepts int

**public** **void** display(**int** a)

{

System.***out***.println("Got Integer data of methodOv.");

}

// this method accepts String object

**public** **void** display(String a)

{

System.***out***.println("Got String object methodOv.");

}

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

{ MethodOv m1 = **new** MethodOv();

m1.display(1);

m1.display("Hello");

}

}

**Output:**

got integer data of methodov.

Got String object methodov

**b. Constructors overloading**

**public** **class** ConstructorOv {

//instance variables of the class

**int** id=1;

String name="Sujata";

ConstructorOv()

{

System.***out***.println("this a default constructor");

}

ConstructorOv(**int** i, String n)

{

id = i;

name = n;

}

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

{

//object creation

ConstructorOv s = **new** ConstructorOv();

System.***out***.println("\nDefault Constructor values: \n");

System.***out***.println("Student Id : "+s.id + "\nStudent Name : "+s.name);

System.***out***.println("\nParameterized Constructor values: \n");

ConstructorOv student = **new** ConstructorOv(40, "Vrushabhkumar");

System.***out***.println("Student Id : "+student.id + "\nStudent Name : "+student.name);

}

}

**Output:**

This a default constructor

Default Constructor values:

Student Id : 1

Student Name : Sujata

Parameterized Constructor values:

Student Id : 40

Student Name : Vrushabhkumar

**Exp.No:5. Sorting an Array element to learn Arrays and Strings in Java.**

**Source Code:**

**import** java.util.Scanner;

**class** Sort {

//import java.util.Arrays; class Sort {

**void** sortInterger(**int** a[]) {

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

**for** (**int** j = i + 1; j < a.length; j++) { **if** (a[i] > a[j]) {

**int** temp = a[i]; a[i] = a[j]; a[j] = temp;

}

}

}

}

**void** sortString(String str[]) {

String temp;

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

**for** (**int** j = i + 1; j < str.length; j++) { **if** (str[i].compareTo(str[j]) > 0) {

temp = str[i]; str[i] = str[j]; str[j] = temp;

}

}

}

}

}

**class** Exp5 {

**public** **static** **void** main(String[] args) { Sort obj = **new** Sort();

Scanner in = **new** Scanner(System.***in***); **int** choice;

**do** {

System.***out***.println(" 1.Sort Integer\n 2.Sort String"); System.***out***.println("Enter the choice");

**int** ch = in.nextInt();

**switch** (ch) { **case** 1:

System.***out***.println("Enter the size of Array "); **int** n = in.nextInt();

System.***out***.println("Enter the Numbers :"); **int** arr[] = **new** **int**[n];

**for** (**int** i = 0; i < n; i++) arr[i] = in.nextInt();

obj.sortInterger(arr);

// Arrays.sort(arr); System.out.println("Sorted Numbers :");

**for** (**int** i = 0; i < n; i++) System.***out***.print(arr[i] + " ");

**break**;

**case** 2:

String names[] = { "ram", "shyam", "seeta", "geeta","reeta" };

obj.sortString(names);

**for** (**int** i = 0; i < names.length; i++) System.***out***.print(names[i] + " ");

**break**;

}

System.***out***.println("\nDo you want to continue 1 or 0?"); choice = in.nextInt();

} **while** (choice == 1);

}

}

**Output:**

1.Sort Integer

2.Sort String

Enter the choice

1

Enter the size of Array

3

Enter the Numbers :

5

4

1

1 4 5

Do you want to continue 1 or 0?

1

1.Sort Integer

2.Sort String

Enter the choice

2

geeta ram reeta seeta shyam

Do you want to continue 1 or 0?