

Programme Name: \_\_BCS-IT (Hons)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Course Code: \_\_\_\_CSC 1510\_\_

Course Name: \_\_\_Programming Fundamentals\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Assignment: 01\_\_\_\_

Date of Submission: \_\_\_\_\_\_\_\_2020/03/30\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Submitted By: Submitted To:**

Student Name: Kritiz Shrestha Faculty Name: Prakash Chandra

IUKL ID: Department: Email

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With an example explain:

A) Default constructor :

A default constructor is a constructor that either has no parameters or it has parameters, all the parameters have default values.

And if there is no constructor in a class, compiler automatically creates a default constructor.

Example is :

public class Sunway{

Sinway()

{

System.out.println("This is a constructor");}

public static void main(String[] args){

Sunway obj = new Sunway();

}

}

B) Parametrized constructor :

The parameterized constructors are the constructors having a specific number of arguments to be passed and having

the purpose to assign user-wanted specific values to the instance variables of different objects.

Example is :

public class Sunway

{

String studentName;

int studentAge;

//constructor

Sharad(String name, int age){

studentName = name;

studentAge = age;

}

void display(){

System.out.println(studentName+ " "+studentAge);

}

public static void main(String args[])

{

Sharad myObj = newSharad("Manan" , 19);

myObj.display();

}

}

2. Write a program to count number of objects created?

public class ObjectCounter {

private static int counter;

public ObjectCounter() {

counter++;

}

public static void main(String[] args) {

ObjectCounter objectOne = new ObjectCounter();

ObjectCounter objectTwo = new ObjectCounter();

ObjectCounter objectThree = new ObjectCounter();

System.out.print("Total objects: " + ObjectCounter.counter);

}

}

3. Write a java program to check whether the given number is palindrome or not.

import java.util.Scanner;

public class Palindrome

{

public static void main (String [] args)

{

Scanner find = new Scanner(System.in);

System.out.println("enter the number");

int num = find.nextInt();

int sum =0,r , number = num;

while(num>0)

{

r= num%10;

num = num/10;

sum = sum\*10+r;

}

if(sum == number)

{

System.out.println("palindrome number");

}

else

{

System.out.println("not a palindrome");

}

}

}

4. Based on the output below, write a complete java program that prompts the user to enter the numbers. Use array to store these numbers and find:

a) Smallest number in the array

import java.util.Scanner;

public class Question4 { public static void main(String[] args) {

int temp=0;

Scanner input= new Scanner(System.in);

System.out.println("How many number to enter");

int a= input.nextInt();

int[] number = new int[a];

System.out.println("Please enter the"+a+ "numbers:");

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

number[i]= input.nextInt();

}

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

for (int j = i+1; j<a; j++){

if(number[i]<number[j]){

temp= number[i]; number[i]=number[j]; number[j]=temp; } } }

System.out.println("The smallest number you entered is:"+ number[a-1]);

System.out.println("The sorted array values are:"); for ( int i = 0 ; i<a; i++){

System.out.println(number[i] + "\t"); } } }

b) Sort the array elements in descending order.

import java.util.Scanner;

public class New

{

public static void main(String[] args)

{

Scanner input=new Scanner(System.in);

System.out.println("Enter number of students");

int size=input.nextInt();

int a[]=new int[size];

int temp,marks,total=0;

System.out.println("Enter the number of"+size+"marks");

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

{

a[i]=input.nextInt();

}

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

{

for(int j=i+1;j<size;j++)

{

if(a[i]<a[j])

{

temp=a[i];

a[i]=a[j];

a[j]=temp;

}

}

}

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

{

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

}

}

}