

Programme Name: **BCS**

Course Code**: CSC 1510**

Course Name: **Programming Fundamentals**

Assignment: **First**

Date of Submission: **4/3/2020**

**Submitted by: Submitted to:**

Student Name: **Dipesh Tha Shrestha** Name: **Prakash Chandra**

Semester: **Second**

Section: **A**

Intake**: 2019 September**

1. **With an example explain**:
2. **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 of default constructor is given below:

public class Nepal{

Nepal()

{

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

public static void main(String[] args){

Nepal obj = new Nepal();

}

}

1. **Parametrized constructor:**

The parameterized constructors are the constructors having a specific number of arguments to be passed. The purpose of a parameterized constructor is to assign user-wanted specific values to the instance variables of different objects.

Example of Parametrized constructor is given below:

public class MyClass{

int studentAge;

Ram(, int age){

studentAge = age;

}

void display(){

System.out.println(studentAge);

}

public static void main(String args[]){

MyClass Obj = new MyClass( 19);

Obj.display();

}

}

1. **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);

}}

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

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.print("not a palindrome");

}

}

}

1. **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**

**b) Sort the array elements in descending order.**

**a)**

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)**

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]);

}

}

}