



420-ENM-MT

November 10th, 2018

# Activity – Loops And Arrays

# Question 1 – Loops Refresher

Give the code that prints the following pattern and assume the length or number of rows is a number taken from the user.

[\*](javascript:%20void(0);)

[\*\*](javascript:%20void(0);)

[\*\*\*](javascript:%20void(0);)

[\*\*\*\*](javascript:%20void(0);)

[\*\*\*\*\*](javascript:%20void(0);)

import java.util.Scanner;  
  
public class Test  
{  
 public static void main(String[] args)  
 {  
 Scanner sc = new Scanner(System.*in*);  
 System.*out*.print("Please enter the number of rows: ");  
 int rows = sc.nextInt();  
 for (int i = 0; i < rows; i++)  
 {  
 for (int k = rows - 1; k > i; k--)  
 {  
 System.*out*.print(" ");  
 }  
 for (int j = 0; j <= i; j++)  
 {  
 System.*out*.print("\*");  
 }  
 System.*out*.println("");  
 }  
 }  
}

# RÃ©sultats de recherche d'images pour Â«Â arrayÂ Â»Question 2

# SIMPLE ARRAY

## CONCEPT

*An array is a variable that contains multiple index, each index contains its own value. You can imagine that each item in an array, is a different variable.*

**Create the java program that will generate the output as shown below:**

* Let’s create an array of marks for a student
* The program needs to ask how many marks the user can enter
* Then display each mark again and show the average of the student

**How the program should interact with the user:**

**How many marks for this student? 3**

**Mark 1: 75**

**Mark 2: 80**

**Mark 3: 75**

**The marks are 75,80,75**

**The average is: 76.6%**

import java.util.Scanner;  
  
public class Test  
{  
 public static void main(String[] args)  
 {  
 Scanner sc = new Scanner(System.*in*);  
 System.*out*.print("How many marks for this student? ");  
 int number\_of\_marks = sc.nextInt();  
 double[] marks = new double[number\_of\_marks];  
 for (int i = 1; i <= number\_of\_marks; i++)  
 {  
 System.*out*.printf("Marks %d: ",i);  
 marks[i-1] = sc.nextDouble();  
 }  
 double sum = 0;  
 for (double element : marks)  
 {  
 sum += element;  
 }  
 String str = "";  
 for (int i = 1; i <=marks.length; i++)  
 {  
 str += marks[i-1]+", ";  
 }  
 System.*out*.println("The marks are " + str);  
 double average = sum/marks.length;  
 System.*out*.println("The average is: " + String.*format*("%.2f", average) + "%");  
 }  
}

# Question 3 – Arrays + Loops

Write a program that will calculate the sum of all the numbers in an array which

are divisible by 2 but not divisible by 3. The program will ask the user for the size of the array (N) and also the elements of the array.

import java.util.Scanner;  
  
public class NewTest  
{  
 public static void main(String[] args)  
 {  
 Scanner sc = new Scanner(System.*in*);  
 System.*out*.print("Enter size of array: ");  
 int size = sc.nextInt();  
 int[] numbers = new int[size];  
 for (int i = 1; i <= size; i++)  
 {  
 System.*out*.printf("please enter number %d: ",i);  
 numbers[i-1] = sc.nextInt();  
 }  
 int sum = 0;  
 for (double element : numbers)  
 {  
 if(element%2==0 && element%3!=0)  
 {  
 sum += element;  
 }  
 }  
 System.*out*.println("\nThe sum of numbers divisible by 2 but not by 3 is: " + sum);  
 }  
}