

## Worksheet 6

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**Branch: CSE-AIML**

**Semester: 3rd**

**Subject Name: Programing in java**

**UID: 21BCS6615**

**Section/Group 21AIML-9(Grp A)**

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### **1. Aim/Overview of the practical:**

Write a program in Java to display name and roll number of students. Initialize respective array variables for 10 studnets. Handle ArrayIndexOutOfBoundsException, so that any such problem dose not cause illegal termination of program.

### **2. Algorithm:**

Step-1 Start

Step-2 Create a class except.

Step-3 Declare two arrays for student name and student roll no.

Step-4 Take input from the user by creating a get\_data function.

Step-5 Use a try and catch statement to bypass the exception.

Step-6 Create a function to display the student names and student roll numbers.

Step-7 Stop.

### **3. Code:**

```
import java.util.Scanner;
class exp {
    public static void main(String[] args) {
        except obj1=new except();
        obj1.get_data();
        obj1.displayArray();
    }
}
class except {
    String name[]=new String[10];
    int marks[]=new int[10];
    int n=10;
    Scanner scan=new Scanner(System.in);
    void get_data()
    {
        try
        {
            for(int i=0;i<=n;i++)
            {
                System.out.println("Enter the name of the student "+(i+1)+" : ");
                name[i]=scan.nextLine();
            }
        }
    }
    catch(ArrayIndexOutOfBoundsException a)
    {
    }
```

```
System.out.println(a);
}
try
{
    for(int i=0;i<=n;i++)
    {
        System.out.println("Enter the roll no of the student "+(i+1)+" : ");
        marks[i]=scan.nextInt();
    }
} catch(ArrayIndexOutOfBoundsException a)
{
    System.out.println(a);
}
}
void displayArray()
{
    System.out.println("Names of the students are : ");
    for(int i=0;i<n;i++)
    {
        System.out.println(name[i]);
    }
    System.out.println("Roll number of the students are : ");
    for(int i=0;i<n;i++)
    {
        System.out.println(marks[i]);
    }
}
}
```

## Output :

```
PS D:\java> cd "d:\java\" ; if ($?) { javac exp.java } ; if ($?) { java exp }
Enter the name of the student 1 :
uday
Enter the name of the student 2 :
akrit
Enter the name of the student 3 :
mayank
Enter the name of the student 4 :
rishab
Enter the name of the student 5 :
gautam
Enter the name of the student 6 :
anusheeta
Enter the name of the student 7 :
shubham
Enter the name of the student 8 :
ankur
Enter the name of the student 9 :
sheetal
Enter the name of the student 10 :
divya
Enter the name of the student 11 :
alok
java.lang.ArrayIndexOutOfBoundsException: Index 10 out of bounds for length 10
Enter the roll no of the student 1 :
2134
Enter the roll no of the student 2 :
4543
Enter the roll no of the student 3 :
7645
Enter the roll no of the student 4 :
5545
Enter the roll no of the student 5 :
5523
Enter the roll no of the student 6 :
3545
Enter the roll no of the student 7 :
5422
Enter the roll no of the student 8 :
324
Enter the roll no of the student 9 :
9778
Enter the roll no of the student 10 :
3
Enter the roll no of the student 11 :
232
java.lang.ArrayIndexOutOfBoundsException: Index 10 out of bounds for length 10
```

```
Names of the students are :
uday
akrit
mayank
rishab
gautam
anushmita
shubham
ankur
sheetal
dhruv
Roll number of the students are :
2134
4543
7645
5545
5523
3545
5422
324
9778
3
PS D:\java> []
```

### Learning outcomes (What I have learnt):

- Understand the concept of creating class.
- Understand the concept of default constructor of the class.
- Understand the concept of a new operator.
- Understand the concept of conditional statements in java.

### Evaluation Grid (To be created as per the SOP and Assessment guidelines by the faculty):

<u>Sr. No.</u>	<u>Parameters</u>	<u>Marks Obtained</u>	<u>Maximum Marks</u>
<u>1.</u>	<u>Viva</u>		<u>10</u>
<u>2.</u>	<u>Performance</u>		<u>12</u>
<u>3.</u>	<u>Worksheet</u>		<u>8</u>