

**REG NO** : 19BCS0012  
**NAME** : NITHISH G  
**COURSE CODE** : 3001  
**COURSE** : JAVA PROGRAMMING  
**DATE** : 2.04.2021

Question 1: (10 marks)

Write a program to receive 12 register numbers of VIT students from the Departments given in Table 1. Identify the Department of the student by the code [refer table 1] present in the register number. Display the final List according to the inputs as given in table 2.

**Source code:**

```
import java.util.Scanner;

public class STUDENTSREG {

    public static void main(String[] args) {

        System.out.print("\t Name : Nithish G \n\t regno No.: 19BCS0012\n\n");
        String[] regno = new String[12];
        int bcs = 0, bca = 0, bce = 0, bit = 0, mis = 0;
        String[] BCS = new String[12];
        String[] BCA = new String[12];
        String[] BCE = new String[12];
        String[] BIT = new String[12];
        String[] MIS = new String[12];
        System.out.print("ENTER 12 REGISTER NUMBERS : \n");
        int i;
        Scanner read = new Scanner (System.in);
        for(i = 0; i<12; i++)
        {
            System.out.print((i+1)+". ");
            regno[i] = read.next();
        }

        for(i = 0; i<12; i++)
        {
```

```

        if(regno[i].substring(2,5).equals("BCS"))
        {
            BCS[bcs] = regno[i];
            bcs++;
        }
        else if(regno[i].substring(2,5).equals("BCA"))
        {
            BCA[bca] = regno[i];
            bca++;
        }
        else if(regno[i].substring(2,5).equals("BCE")) {
            BCE[bce] = regno[i];
            bce++;
        }
        else if(regno[i].substring(2,5).equals("BIT")) {
            BIT[bit] = regno[i];
            bit++;
        }
        else if(regno[i].substring(2,5).equals("MIS")) {
            MIS[mis] = regno[i];
            mis++;
        }
    }
    System.out.print("\n  REGISTER NUMBERS  \n");
    System.out.print("\n  BCS  \n");
    for(i = 0;i<bcs;i++)
        System.out.print(BCS[i]+" \n");

    System.out.print("\n  BCA  \n");
    for(i = 0;i<bca;i++)
        System.out.print(BCA[i]+" \n");

    System.out.print("\n  BCE  \n");
    for(i = 0;i<bce;i++)
        System.out.print(BCE[i]+" \n");

    System.out.print("\n  BIT  \n");
    for(i = 0;i<bit;i++)
        System.out.print(BIT[i]+" \n");

    System.out.print("\n  MIS  \n");
    for(i = 0;i<mis;i++)
        System.out.print(MIS[i]+" \n");

}

```

```

}

```

## Output

The screenshot displays an IDE with two main panels. The left panel shows the output of a Java application named 'STUDENTSREG'. The right panel shows the source code of the application, which is a Java class named 'STUDENTSREG'.

**Output Panel:**

```
<terminated> STUDENTSREG [Java Application] C:\Pro
Name : Nithish G
regno No.: 19BCS0012

ENTER 12 REGISTER NUMBERS:
1. 19BCS0012
2. 19BCS0013
3. 19BCS0014
4. 19BCS0015
5. 19BCA0012
6. 19BCA0013
7. 19BCS0015
8. 19BCE0012
9. 19BCE0017
10. 19BCE0018
11. 19MIS0012
12. 19BIT0012

REGISTER NUMBERS

BCS
19BCS0012
19BCS0013
19BCS0014
19BCS0015
19BCS0015

BCA
19BCA0012
19BCA0013

BCE
19BCE0012
```

**Source Code Panel:**

```
1  java.util.Scanner;
2
3
4  class STUDENTSREG {
5
6
7  public static void main(String[] args) {
8
9      System.out.print("\t Name : Nithish G \n");
10     String[] regno = new String[12];
11     int bcs = 0, bca = 0, bce = 0, bit = 0;
12     String[] BCS = new String[12];
13     String[] BCA = new String[12];
14     String[] BCE = new String[12];
15     String[] BIT = new String[12];
16     String[] MIS = new String[12];
17     System.out.print("ENTER 12 REGISTER NUMBERS: ");
18     int i;
19     Scanner read = new Scanner(System.in);
20     for(i = 0; i < 12; i++)
21     {
22         System.out.print((i+1) + ". ");
23     }
```

**Problems Panel:**

1 error, 9 warnings, 0 others

| Description                        | Resolved |
|------------------------------------|----------|
| Errors (1 item)                    |          |
| string cannot be resolved          | s.jav    |
| Warnings (9 items)                 |          |
| The import java.util is never used | trial    |
| The local variable c is never read | sum      |

Package Explorer Console

<terminated> STUDENTSREG [Java Application] C:\Program Files\Java\j...  
6. 19BCA0013  
7. 19BCS0015  
8. 19BCE0012  
9. 19BCE0017  
10. 19BCE0018  
11. 19MIS0012  
12. 19BIT0012

REGISTER NUMBERS

BCS  
19BCS0012  
19BCS0013  
19BCS0014  
19BCS0015  
19BCS0015

BCA  
19BCA0012  
19BCA0013

BCE  
19BCE0012  
19BCE0017  
19BCE0018

BIT  
19BIT0012

MIS  
19MIS0012

display\_particular\_e student.java \*STUDENTSREG.java

src (default package) STUDENTSREG main

```
1 import java.util.Scanner;  
2  
3  
4 class STUDENTSREG {  
5  
6  
7     public static void main(String[] args) {  
8  
9         System.out.print("\t Name : Nithish G \n\t  
10         String[] regno = new String[12];  
11         int bcs = 0, bca = 0, bce = 0, bit = 0, mis  
12         String[] BCS = new String[12];  
13         String[] BCA = new String[12];  
14         String[] BCE = new String[12];  
15         String[] BIT = new String[12];  
16         String[] MIS = new String[12];  
17         System.out.print("ENTER 12 REGISTER NUMBERS  
18         int i;  
19         Scanner read = new Scanner (System.in);  
20         for(i = 0; i<12; i++)  
21         {  
22             System.out.print((i+1)+". ");  
23             regno[i] = read.next();
```

Problems @ Javadoc Declaration

1 error, 9 warnings, 0 others

| Description                        | Resource     |
|------------------------------------|--------------|
| Errors (1 item)                    |              |
| string cannot be resolved          | s.java       |
| Warnings (9 items)                 |              |
| The import java.util is never used | trialspace.j |
| The local variable c is never read | sum_each_    |

2.

### Source code

```
import java.util.Arrays;

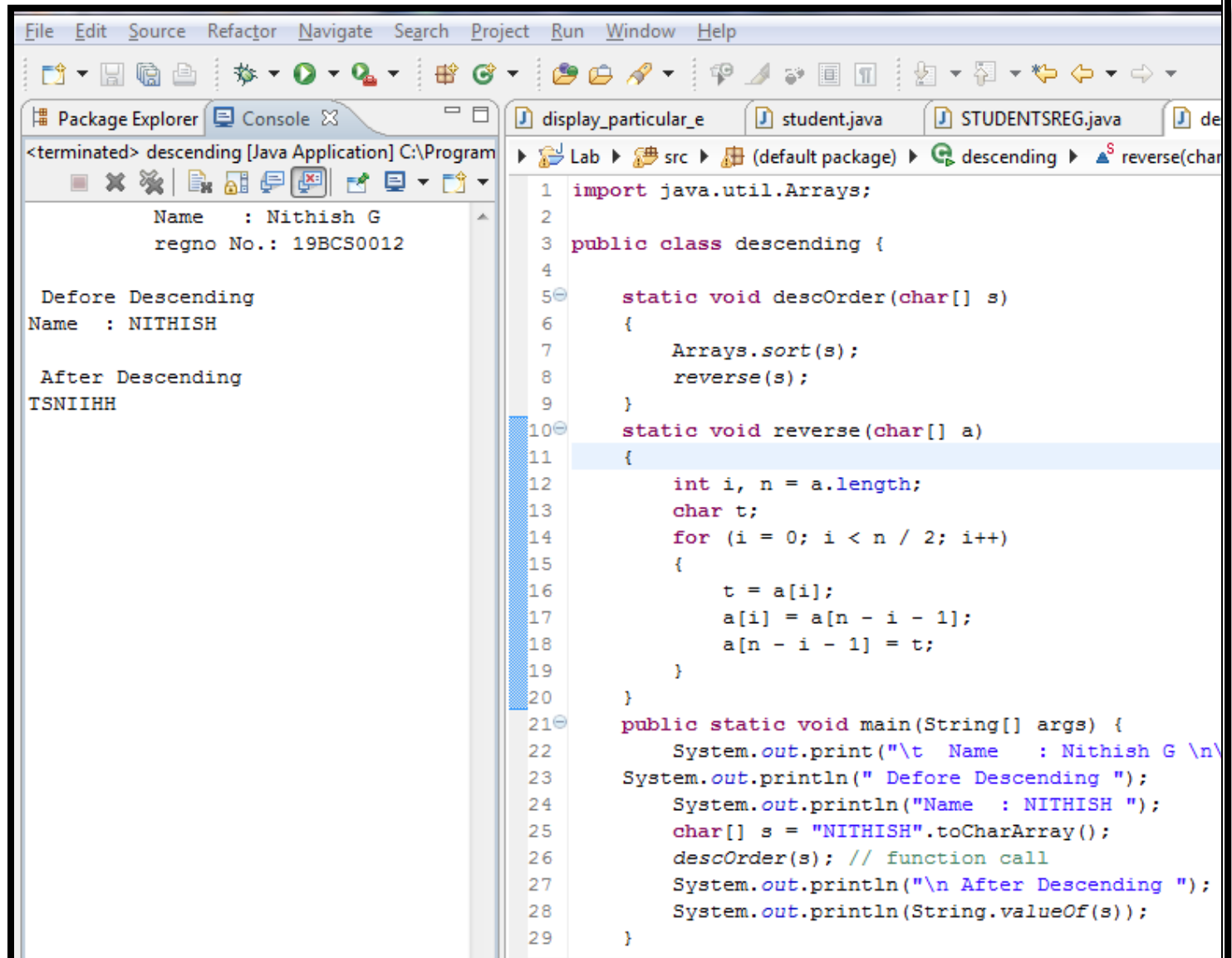
public class descending {

    static void descOrder(char[] s)
    {
        Arrays.sort(s);
        reverse(s);
    }

    static void reverse(char[] a)
    {
        int i, n = a.length;
        char t;
        for (i = 0; i < n / 2; i++)
        {
            t = a[i];
            a[i] = a[n - i - 1];
            a[n - i - 1] = t;
        }
    }

    public static void main(String[] args) {
        System.out.print("\t Name : Nithish G \n\t regno No.:
19BCS0012\n\n");
        System.out.println(" Defore Descending ");
        System.out.println("Name : NITHISH ");
        char[] s = "NITHISH".toCharArray();
        descOrder(s); // function call
        System.out.println("\n After Descending ");
        System.out.println(String.valueOf(s));
    }
}
```

## OUTPUT



The screenshot shows an IDE with the following components:

- Package Explorer:** Shows the project structure with a package named 'descending' containing a class 'reverse(char[])'.
- Console:** Displays the output of the program:

```
<terminated> descending [Java Application] C:\Program
Name : Nithish G
regno No.: 19BCS0012

Defore Descending
Name : NITHISH

After Descending
TSNIIHH
```
- Source Editor:** Contains the following Java code:

```
1 import java.util.Arrays;
2
3 public class descending {
4
5     static void descOrder(char[] s)
6     {
7         Arrays.sort(s);
8         reverse(s);
9     }
10    static void reverse(char[] a)
11    {
12        int i, n = a.length;
13        char t;
14        for (i = 0; i < n / 2; i++)
15        {
16            t = a[i];
17            a[i] = a[n - i - 1];
18            a[n - i - 1] = t;
19        }
20    }
21    public static void main(String[] args) {
22        System.out.print("\t Name : Nithish G \n");
23        System.out.println(" Defore Descending ");
24        System.out.println("Name : NITHISH ");
25        char[] s = "NITHISH".toCharArray();
26        descOrder(s); // function call
27        System.out.println("\n After Descending ");
28        System.out.println(String.valueOf(s));
29    }
```