

Java PRACTICAL FILE(CIC-258)

PROGRAM: Find the largest and smallest element in an array after getting values from console.

AIM : To understand how to take array input from the user and find the smallest and largest elements in an array using Java.

Code :

```
1 import java.util.Scanner;
2 public class MinMaxArray {
3     Run main | Debug main | Run | Debug
4     public static void main(String[] args) {
5
5         Scanner sc = new Scanner(System.in);
6
7         // Input array size
8         System.out.print("Enter number of elements: ");
9         int n = sc.nextInt();
10
11         int[] arr = new int[n];
12
13         // Input array elements
14         System.out.println("Enter array elements:");
15         for (int i = 0; i < n; i++) {
16             arr[i] = sc.nextInt();
17         }
18
19         // Initialize min and max
20         int min = arr[0];
21         int max = arr[0];
22
23         // Find min and max
24         for (int i = 1; i < n; i++) {
25             if (arr[i] < min)
26                 min = arr[i];
27
28             if (arr[i] > max)
29                 max = arr[i];
30         }
31
32         // Output result
33         System.out.println("Smallest element = " + min);
34         System.out.println("Largest element = " + max);
35
36         sc.close();
37     }
38 }
```

OUTPUT :

```
PS C:\Users\nitin\OneDrive\Desktop\class 1> c; cd 'c:\Users\nitin\OneDrive\Desktop\class 1'; & 'C:\Program Files\Java\jdk-25.0.2\bin\java.exe' '--enable-preview' '-XX:+ShowCodeDetailsInExceptionMessages' '-cp' 'C:\Users\nitin\OneDrive\Desktop\class 1\bin' 'MinMaxArray'
Enter number of elements: 4
Enter array elements:
1 3 6 7
Smallest element = 1
Largest element = 7
```

Name = Nitin Kumar

Enrollment No – 13515003124

Class = IT-2

Java PRACTICAL FILE(CIC-258)

PROGRAM: Write a menu driven program to implement String and StringBuffer operation

AIM : To understand and implement various operations on String and StringBuffer using a menu-driven Java program.

Code :

```
import java.util.Scanner;

class StringMenuProgram {
    Run main | Debug main | Run | Debug
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        int choice;
        do {
            System.out.println("----- MENU -----");
            System.out.println("1. String Length");
            System.out.println("2. String Concatenation");
            System.out.println("3. String Comparison");
            System.out.println("4. String Reverse");
            System.out.println("5. StringBuffer Append");
            System.out.println("6. StringBuffer Insert");
            System.out.println("7. StringBuffer Reverse");
            System.out.println("8. Exit");
            System.out.print("Enter your choice: ");
            choice = sc.nextInt();
            sc.nextLine(); // clear buffer
            switch (choice) {
                case 1:
                    System.out.print("Enter a string: ");
                    String str1 = sc.nextLine();
                    System.out.println("Length = " + str1.length());
                    break;
                case 2:
                    System.out.print("Enter first string: ");
                    String a = sc.nextLine();
                    System.out.print("Enter second string: ");
                    String b = sc.nextLine();
                    System.out.println("Concatenated String = " + a.concat(b));
                    break;
                case 3:
                    System.out.print("Enter first string: ");
                    String str2 = sc.nextLine();
                    System.out.print("Enter second string: ");
                    String str3 = sc.nextLine();
                    if (str2.equals(str3))
                        System.out.println("Strings are Equal");
                    else
                        System.out.println("Strings are Not Equal");
                    break;
                case 4:
                    System.out.print("Enter a string: ");
                    String str4 = sc.nextLine();
                    String rev = "";
                    for (int i = str4.length() - 1; i >= 0; i--) {
                        rev = rev + str4.charAt(i);
                    }
                    System.out.println("Reversed String = " + rev);
                    break;
                case 5:
                    System.out.print("Enter StringBuffer value: ");
                    StringBuffer sb1 = new StringBuffer(sc.nextLine());
                    System.out.print("Enter text to append: ");
                    sb1.append(sc.nextLine());
                    System.out.println("Result = " + sb1);
                    break;
                case 6:
                    System.out.print("Enter StringBuffer value: ");
                    StringBuffer sb2 = new StringBuffer(sc.nextLine());
                    System.out.print("Enter text to insert: ");
                    String ins = sc.nextLine();
                    System.out.print("Enter position: ");
                    int pos = sc.nextInt();
                    sb2.insert(pos, ins);
                    System.out.println("Result = " + sb2);
                    break;
                case 7:
                    System.out.print("Enter StringBuffer value: ");
                    StringBuffer sb3 = new StringBuffer(sc.nextLine());
                    sb3.reverse();
                    System.out.println("Reversed StringBuffer = " + sb3);
                    break;
                case 8:
                    System.out.println("Exiting Program....");
                    break;
                default:
                    System.out.println("Invalid Choice!");
            }
        } while (choice != 8);
        sc.close();
    }
}
```

Name = Nitin Kumar

Enrollment No – 13515003124

Class = IT-2

OUTPUT :

```
PS C:\Users\nitin\OneDrive\Desktop\class 1> & 'C:\Program Files\Java\jdk-25.0.2\bin\java.exe' '--enable-preview' '-XX:+ShowCodeDetailsInExceptionMessages' '--cp' 'C:\Users\nitin\OneDrive\Desktop\class 1\bin' 'StringMenuProgram'

----- MENU -----
1. String Length
2. String Concatenation
3. String Comparison
4. String Reverse
5. StringBuffer Append
6. StringBuffer Insert
7. StringBuffer Reverse
8. Exit
Enter your choice: 1
Enter a string: Nitin
Length = 5

----- MENU -----
1. String Length
2. String Concatenation
3. String Comparison
4. String Reverse
5. StringBuffer Append
6. StringBuffer Insert
7. StringBuffer Reverse
8. Exit
Enter your choice: 4
Enter a string: Nitin
Reversed String = nitin

----- MENU -----
1. String Length
2. String Concatenation
3. String Comparison
4. String Reverse
5. StringBuffer Append
6. StringBuffer Insert
7. StringBuffer Reverse
8. Exit
```

Name = Nitin Kumar
Enrollment No – 13515003124
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