

Problem 1: Write a java program that takes an user input array and display its elements.

Code:

```
4  */
5  package com.mycompany.firstlab;
6
7  import java.util.Scanner;
8
9  public class Program1 {
10
11      Scanner inp = new Scanner(System.in);
12
13      private int[] array;
14
15      public void inputArray() {
16          System.out.print("Enter the size of the array : ");
17          int size = inp.nextInt();
18
19          array = new int[size];
20
21          for (int i = 0; i < array.length; i++) {
22              System.out.printf("Enter element - %d : ", i + 1);
23              array[i] = inp.nextInt();
24          }
25      }
26
27      public void displayArray() {
28          for (int i = 0; i < array.length; i++) {
29              System.out.printf("Element - %d : %d\n", (i + 1), array[i]);
30          }
31      }
32  }
33
```

```
1  /*
2  * Click nbfs://nbhost/SystemFileSystem/Templ
3  */
4  package com.mycompany.firstlab;
5
6  public class Main {
7
8      public static void main(String[] args) {
9
10         // Program --- 1
11         Program1 arrayInput = new Program1();
12         arrayInput.inputArray();
13         arrayInput.displayArray();
14
15         // Program --- 2
16         // Program2 methods = new Program2();
17         // methods.stringMethods();
18
19         // Program --- 3
20         // Program3 print = new Program3();
21         // print.printElement();
22     }
23 }
24
```

Output:

```
--- exec:3.1.0:exec (default-cli) @ 01Fi
Enter the size of the array : 5
Enter element - 1 : 3
Enter element - 2 : 14
Enter element - 3 : 15
Enter element - 4 : 81
Enter element - 5 : 50
Element - 1 : 3
Element - 2 : 14
Element - 3 : 15
Element - 4 : 81
Element - 5 : 50

-----
BUILD SUCCESS
-----
Total time: 15.373 s
Finished at: 2025-02-07T15:24:00+06:00
-----
```

Problem 2: Write a java program that performs string methods like :

i) charAt(); ii) concat(); iii) contains(); iv) equals(); v) indexOf(); vi) isEmpty();
vii) length(); viii) replace(); ix) splits(); x) trim(); xi) toUpperCase(); xii) toLowerCase();

Code:

```
5 package com.mycompany.firstlab;
6
7 public class Program2 {
8
9     public void stringMethods() {
10         String string1 = "Hello";
11         char result = string1.charAt(0);
12         System.out.printf("charAt %d : %c\n", 0, result);
13
14         String firstN = "Abdullah ";
15         String lastN = "Atif";
16         System.out.println("Concating names : " + firstN.concat(lastN));
17
18         String string2 = "Varendra";
19         System.out.println("Contains : " + string2.contains("ar"));
20         System.out.println("Contains : " + string2.contains("V"));
21         System.out.println("Contains : " + string2.contains("U"));
22
23         String stringEq1 = "CSE-2102";
24         String stringEq2 = "CSE-2102";
25         String stringEq3 = "MAT-2141";
26
27         System.out.println("String equality : " + stringEq1.equals(stringEq2));
28         System.out.println("String equality : " + stringEq2.equals(stringEq3));
29     }
```

```
29 String string3 = "Bangladesh is a beautiful country";
30 System.out.println("Index of : " + string3.indexOf("country"));
31
32
33 String stringTest1 = "University";
34 String stringTest2 = "";
35 System.out.println("Empty : " + stringTest1.isEmpty());
36 System.out.println("Empty : " + stringTest2.isEmpty());
37
38 String checkLen = "ABCDEFGHJKLMNOPQRSTUVWXYZ";
39 System.out.println("Length : " + checkLen.length());
40
41 String repStr = "Good N";
42 System.out.println(repStr.replace('N', 'M'));
43
44 String myStr = "Split a string by spaces, and also punctuation.";
45 String regex = "[.\\W\\s]";
46 String[] myArray = myStr.split(regex);
47 for (String s : myArray) {
48     System.out.println(s);
49 }
50
51 String upLowTxt = "Real Madrid";
52 System.out.println("Upper case : " + upLowTxt.toUpperCase());
53 System.out.println("Lower case : " + upLowTxt.toLowerCase());
54
55 String trimStr = " Hello World! ";
56 System.out.println("Without trim : " + trimStr);
57 System.out.println("When trimmed : " + trimStr.trim());
58 }
59
60 }
```

```
1 package com.mycompany.firstlab;
2
3 public class Main {
4
5     public static void main(String[] args) {
6
7         // Program --- 1
8         // Program1 arrayInput = new Program1();
9         // arrayInput.inputArray();
10        // arrayInput.displayArray();
11        //
12        // Program --- 2
13        Program2 methods = new Program2();
14        methods.stringMethods();
15
16        // Program --- 3
17        // Program3 print = new Program3();
18        // print.printElement();
19        //
20    }
21 }
```

Output:

```
Output - Run (01FirstLab) x
--- exec:3.1.0:exec (default-cli) @ 01FirstLab
charAt 0 : H
Concatating names : Abdullah Atif
Contains : true
Contains : true
Contains : false
String equality : true
String equality : false
Index of   : 26
Empty : false
Empty : true
Length : 26
Good M
Split
a
string
by
spaces

and
also
punctuation
```

```
Upper case : REAL MADRID
Lower case : real madrid
Without trim :      Hello World!
When trimmed : Hello World!
```

BUILD SUCCESS

Total time: 0.807 s
Finished at: 2025-02-07T15:54:16+06:00

Problem 3: Write a java program to print 1-10 except 5 using continue keyword.

Code:

```
Main.java x Program1.java x Program2.java x Program3.java x
Source History
1 package com.mycompany.firstlab;
2
3 public class Program3 {
4
5     public void printElement() {
6         for (int i = 1; i <= 10; i++) {
7             if (i == 5) {
8                 continue;
9             }
10            System.out.println(i);
11        }
12    }
13 }
14
```

```
Main.java x Program1.java x Program2.java x Program3.java x
Source History
1 package com.mycompany.firstlab;
2
3 public class Main {
4
5     public static void main(String[] args) {
6
7         // Program --- 1
8         // Program1 arrayInput = new Program1();
9         // arrayInput.inputArray();
10        // arrayInput.displayArray();
11        //
12        // Program --- 2
13        // Program2 methods = new Program2();
14        // methods.stringMethods();
15        //
16        // Program --- 3
17        Program3 print = new Program3();
18        print.printElement();
19    }
20 }
21
22
```

Output:

```
--- exec:3.1.0:exec (default-c
1
2
3
4
5
6
7
8
9
10
-----
BUILD SUCCESS
-----
Total time: 0.794 s
```