# IT623 - Lab Assignment 1

1. Traverse the array and print the elements in all possible order.

## Code:

```
class Program1 {
    public static void main(String[] args) {
        int[] arr = { 1, 2, 3, 4, 5, 6 };

        System.out.println("Array : ");
        for (int i = 0; i < arr.length; i++) {
            System.out.println(arr[i]);
        }
    }
}</pre>
```

```
TERMINAL PROBLEMS OUTPUT DEBUG CONSOLE

C:\Users\Abhishek\OneDrive\Documents\College\Sem 1\DSA>javac Program1.java

C:\Users\Abhishek\OneDrive\Documents\College\Sem 1\DSA>java Program1

Array : 1 2 3 4 5 6

Reverse Array : 6 5 4 3 2 1

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```

## 2. Delete the element of specified position in the array.

#### Code:

```
import java.util.Arrays;
public class Program2 {
  public static void main(String[] args) {
     int[] arr = { 1, 2, 3, 4, 5, 6 };
     int[] arr_new = new int[arr.length - 1];
     int j = 2;
     for (int i = 0, k = 0; i < arr.length; i++) {
        if (i != j) {
           arr_new[k] = arr[i];
           k++;
        }
     }
     System.out.println("Before deletion: " + Arrays.toString(arr));
     System.out.println("After deletion: " + Arrays.toString(arr_new));
  }
}
```

```
TERMINAL PROBLEMS OUTPUT DEBUG CONSOLE

C:\Users\Abhishek\OneDrive\Documents\College\Sem 1\DSA>javac Program2.java

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Before deletion: [1, 2, 3, 4, 5, 6]

After deletion: [1, 2, 4, 5, 6]

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```

## 3. Print the minimum number and the maximum number of the array.

#### Code:

```
public class Program3 {
  public static void main(String[] args) {
     int[] arr = { 1, 2, 3, 4, 5, 6 };
     int min, max;
     max = arr[0];
     min = arr[0];
     for (int i = 0; i < arr.length; i++) {
        if (arr[i] > max) {
          max = arr[i];
        } else if (arr[i] < min) {
          min = arr[i];
        }
     }
     System.out.println("Minimum array element: " + min);
     System.out.println("Maximum array element: " + max);
  }
}
```

```
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Minimum array element : 1

Maximum array element : 6

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```

## 4. Sum the array elements and print the result.

#### Code:

```
public class Program4 {
   public static void main(String[] args) {
     int[] arr = { 5, 10, 15, 20 };
     int sum = 0;

     for (int i = 0; i < arr.length; i++) {
          sum += arr[i];
     }

     System.out.println("Sum of array element : " + sum);
   }
}</pre>
```

```
TERMINAL PROBLEMS OUTPUT DEBUG CONSOLE

C:\Users\Abhishek\OneDrive\Documents\College\Sem 1\DSA>javac Program4.java

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Sum of array element: 50

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```

#### 5. Insert an element at the last position.

#### Code:

```
import java.util.Arrays;

public class Program5 {
    public static void main(String[] args) {
        int[] arr = { 1, 2, 3, 4, 5, 6 };
        int value = 8;
        int no = arr.length;
        int[] newArr = new int[no + 1];

        for (int i = 0; i < arr.length; i++) {
            newArr[i] = arr[i];
        }
        newArr[no] = value;

        System.out.println("Before inserting element : " + Arrays.toString(arr));
        System.out.println("After inserting element at the last position : " +

Arrays.toString(newArr));
    }
}</pre>
```

```
TERMINAL PROBLEMS OUTPUT DEBUG CONSOLE

C:\Users\Abhishek\OneDrive\Documents\College\Sem 1\DSA>javac Program5.java

C:\Users\Abhishek\OneDrive\Documents\College\Sem 1\DSA>java Program5

Before inserting element: [1, 2, 3, 4, 5, 6]

After inserting element at the last position: [1, 2, 3, 4, 5, 6, 8]

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C:\Users\Abhishek\OneDrive\Documents\College\Sem 1\DSA>
```