

Array Exercise

1. Write a program to bubble sort contents of an integer array.

```
int [] arr = {100,30,67,0,23,99,2};
int n = arr.length;
for (int i = 0; i < n-1; i++)
{
    for (int j = 0; j < n-i-1; j++)
        if (arr[j] > arr[j+1])
        {
            // swap temp and arr[i]
            int temp = arr[j];
            arr[j] = arr[j+1];
            arr[j+1] = temp;
        }
}
```

2. Write a program to find the index of a specific item in an array.

```
public class Array10 {
    public static int getIndex(int[] arr, int t) {
        if (arr == null) return -1;
        int len = arr.length;
        int i = 0;
        while (i < len) {
            if (arr[i] == t) return i;
            else i=i+1;
        }
        return -1;
    }
    public static void main(String[] args) {
        int[] arr = {12,56,76,98,67,198,456,716,45,100,988,99};
        System.out.println("Index position of 99 is: " +
            getIndex (arr, 99));
        System.out.println("Index position of 198 is: " +
            getIndex (arr, 198));
    }
}
```

3. Write a program to find duplicate values from an array.

```
int[] my_array = {1, 2, 5, 5, 6, 6, 7, 2};

for (int i = 0; i < my_array.length-1; i++)
{
    for (int j = i+1; j < my_array.length; j++)
    {
        if ((my_array[i] == my_array[j]) && (i != j))
        {
            System.out.println("Duplicate Element : "
                               "+my_array[j]);
        }
    }
}
```

4. Write a program to find common elements from 2 arrays.

```
String [] arr1 = {"RED", "BLUE", "GREEN", "ORANGE"};

String [] arr2 = {"WHITE", "RED", "BLACK", "BLUE", "BROWN"};

//Convert arr2 to String Representation
String arr2_String = Arrays.toString(arr2);

for (String x : arr1) {
    if(arr2_String.contains(x)) {
        System.out.println("Common Element Found : " + x);
    }
}
```

5. Write a program to print 'x' in the output whenever 3 consecutive numbers are found in an array.

Ex. For an array {12,1,2,3,56,78,99,100,101,8,9,111} => 2 x will get printed (xx)

```
int [] arr = {12,1,2,3,56,78,99,100,101,8,9,111,112,113};

for(int i = 0; i <= arr.length-3; i++) {
    if (arr[i] + 1 == arr[i+1] && arr[i+1] + 1 == arr[i+2]) {
        System.out.print("x");
        i+=2;
    }
}
```