

CDAC MUMBAI

Day 5 Assignment

1. Write a Java program to print the following pattern:

```
1
1 2
1 2 3
1 2 3 4
1 2 3 4 5
```

2. Write a Java program to print the following pattern:

```
5 4 3 2 1
5 4 3 2
5 4 3
5 4
5
```

3. Write a Java program to print the following pattern:

```
1
2 2
3 3 3
4 4 4 4
5 5 5 5 5
```

4. Write a Java program to find the sum of all elements in an integer array.

Expected Input: An array of integers (e.g., {1, 2, 3, 4, 5})

Expected Output: Sum of all elements (e.g., 15)

5. Write a Java program to find the second largest element in an integer array without using sorting.

Expected Input: An array of integers (e.g., {5, 3, 9, 7, 1})

Expected Output: Second largest element (e.g., 7)

6. Write a Java program to reverse an array of integers without using additional arrays or collections.

Expected Input: An array of integers (e.g., {1, 2, 3, 4, 5})

Expected Output: Reversed array (e.g., {5, 4, 3, 2, 1})

7. Write a Java program to find the common elements between two arrays of integers.

Expected Input: Two arrays of integers (e.g., {1, 2, 3, 4, 5} and {3, 4, 5, 6, 7})

Expected Output: Common elements (e.g., {3, 4, 5})

8. Write a Java program to remove duplicate elements from an array of integers without using sorting.

Expected Input: An array of integers with duplicates (e.g., {1, 2, 2, 3, 4, 4, 5})

Expected Output: Array with duplicates removed (e.g., {1, 2, 3, 4, 5})