**Problem Set – 3**

1. Write a program to calculate the sum of all integers between 10 and 950 that are divisible by both 6 and 9.

1(Extra). Find the GCD and LCM of two numbers m and n (user inputs).

[ Hint: LCM(m , n) = m×n / GCD(m, n) ]

1. Write a Java program that takes an integer as input and calculates the sum of its digits using a while loop.

2(Extra). Write a Java program that takes an integer as input and generates a number which has the digits in the reverse order.

1. Write a Java program that prints the first N terms of the Fibonacci series using a loop.

3(Extra). Write a Java program which checks whether a given number appears in the Fibonacci series or not.

[ Hint: For a Fibonacci number n, either 5n2+4 or 5n2-4 is a perfect square. ]

1. Write a Java program to count and display the total number of prime numbers between 1 and 1000.

4(Extra). Write a Java program which checks whether a given number is prime or not.

1. Write a Java program that counts how many times a given number appears in an array.

Input: arr = [2, 3, 2, 5, 2, 6], target = 2

Output: 3

5(Extra) Write a Java program that takes an array from users and generates and displays another array of the unique elements from the former array.

1. Write a Java program to find the second largest element in an integer array without sorting the array.
2. WAP to print the following pattern using loop

?

# # #

? ? ? ? ?

# # # # # # #

? ? ? ? ? ? ? ? ?

Additional Question:

1. Write a Java program that copies all elements from one array to another using a loop.
2. Given an array containing N-1 unique numbers from 1 to N, write a Java program to find the missing number.

Input: [1, 5, 6, 2, 4]

Output: 3

1. Write a Java program to rotate an array right by K positions.

Input: arr = [1, 2, 3, 4, 5], K = 2

Output: [4, 5, 1, 2, 3]