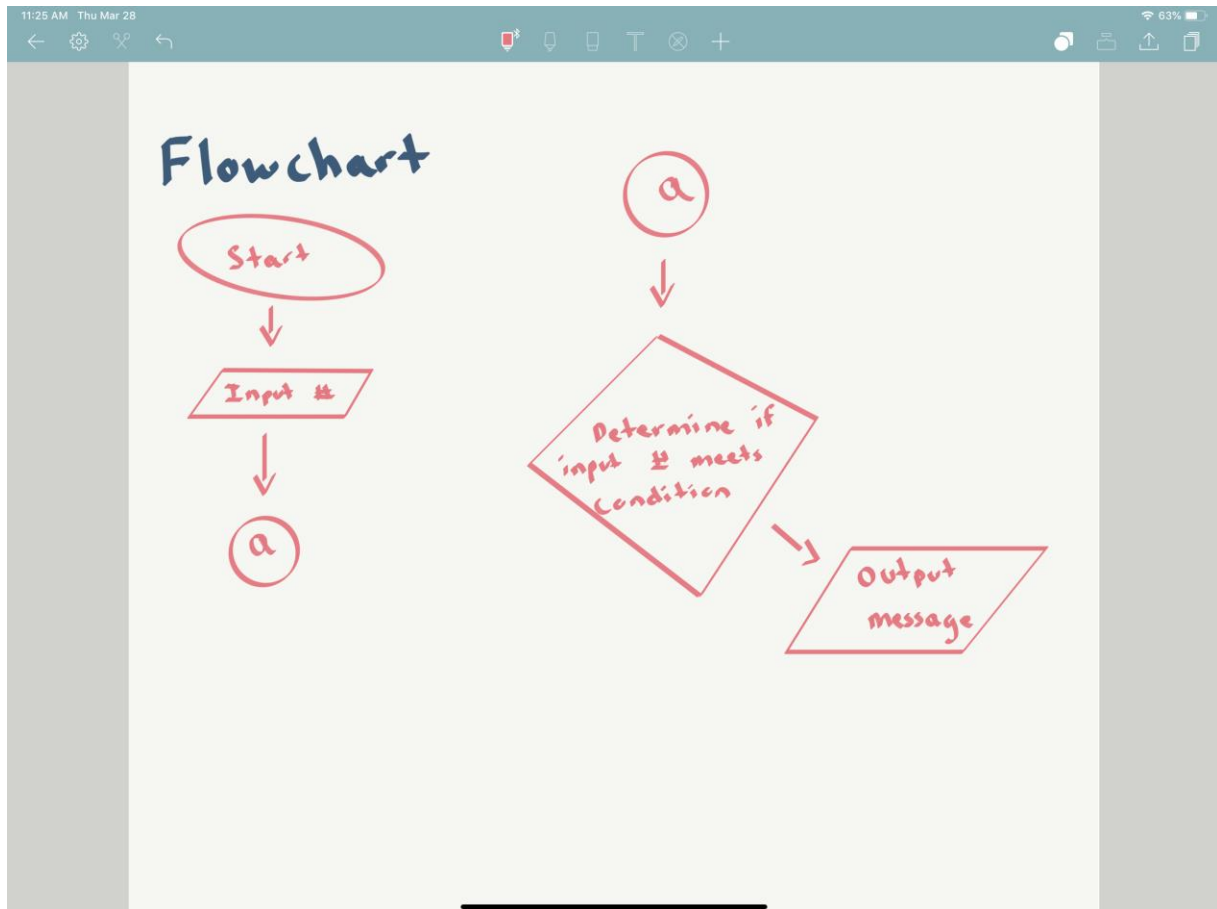# Lab 3

PseudoCode

        Purpose - Using if else & case statements , loops to print number within range of 1 through 10
     Input - Integer
     Processing - CASE statement to determine corresponding roman numeral
     Output - Display a correct message or error message

Flowchart

Output

```
Enter a number within the range of 1 through 10 to find its roman numeral.
1
The roman numeral of 1 is X
------------------------------------------------------------------------
Enter a number within the range of 1 through 10 to find its roman numeral.
2
The roman numeral of 2 is X
------------------------------------------------------------------------
Enter a number within the range of 1 through 10 to find its roman numeral.
-1
The roman numeral of -1 is not available
Only numbers within the range of 1 through 10 is available.
------------------------------------------------------------------------
Enter a number within the range of 1 through 10 to find its roman numeral.
11
The roman numeral of 11 is not available
Only numbers within the range of 1 through 10 is available.
------------------------------------------------------------------------
Enter a number within the range of 1 through 10 to find its roman numeral.
```

Code

```java
import java.util.Scanner;

public class Lab3 {

    public static void main(String[] args) {
        Scanner number = new Scanner(System.in);

        for (int i = 0; i <= 10 ; i ++) {
        System.out.println("Enter a number within the range of 1 through 10 to
find its roman numeral.");

            int input = number.nextInt();


            if (input >= 1 || input <= 10) {

            String romanNumeral = "";

            switch (input) {
            case 1:
                romanNumeral = "I";
            case 2:
                romanNumeral = "II";
```

```java
                case 3:
                        romanNumeral = "III";
                case 4:
                        romanNumeral = "IIII";
                case 5:
                        romanNumeral = "V";
                case 6:
                        romanNumeral = "VI";
                case 7:
                        romanNumeral = "VII";
                case 8:
                        romanNumeral = "VIII";
                case 9:
                        romanNumeral = "IX";
                case 10:
                        romanNumeral = "X";

                case 1-10:
                System.out.println("The roman numeral of " + input + " is " +
romanNumeral);
                System.out.println("-----------------------------------------------
------------------");
                break;
                }

                if (input < 1 || input >10) {
                        System.out.println("The roman numeral of " + input + " is not
available" );
                        System.out.println("Only numbers within the range of 1 through 10
is available.");
                        System.out.println("-----------------------------------------------
------------------------");
                }

//      Using only If Else Statement
//
//              if (input == 1) {
//                      romanNumeral = "I";
//              System.out.println("The roman numeral of " + input + " is " +
romanNumeral);
//              System.out.println("-----------------------------------------------
----------------");
//              } else if(input == 2) {
//              romanNumeral = "II";
//              System.out.println("The roman numeral of " + input + " is " +
romanNumeral);
//              System.out.println("-----------------------------------------------
----------------");
//      } else if(input == 3) {
//              romanNumeral = "III";
//              System.out.println("The roman numeral of " + input + " is " +
romanNumeral);
//              System.out.println("-----------------------------------------------
----------------");
//      } else if(input == 4) {
```

```java
//          romanNumeral = "VI";
//          System.out.println("The roman numeral of " + input + " is " +
romanNumeral);
//          System.out.println("------------------------------------------------------
-----------------");
//      } else if(input == 5) {
//          romanNumeral = "VI";
//          System.out.println("The roman numeral of " + input + " is " +
romanNumeral);
//          System.out.println("------------------------------------------------------
-----------------");
//      } else if(input == 6) {
//          romanNumeral = "VI";
//          System.out.println("The roman numeral of " + input + " is " +
romanNumeral);
//          System.out.println("------------------------------------------------------
-----------------");
//      } else if(input == 7) {
//          romanNumeral = "VII";
//          System.out.println("The roman numeral of " + input + " is " +
romanNumeral);
//          System.out.println("------------------------------------------------------
-----------------");
//      } else if(input == 8) {
//          romanNumeral = "VIII";
//          System.out.println("The roman numeral of " + input + " is " +
romanNumeral);
//          System.out.println("------------------------------------------------------
-----------------");
//      } else if(input == 9) {
//          romanNumeral = "IX";
//          System.out.println("The roman numeral of " + input + " is " +
romanNumeral);
//          System.out.println("------------------------------------------------------
-----------------");
//      } else if(input == 10) {
//          romanNumeral = "X";
//          System.out.println("The roman numeral of " + input + " is " +
romanNumeral);
//          System.out.println("------------------------------------------------------
-----------------");
//      }


            }

            }


            System.exit(0);
        }
}
```