# Fundamentals of Programming Assignment 03

1. Write C++ code which takes two numbers a and b as an input from the user and do the following with the help of for loop:
   a. If the value is between 1-9, it prints the description of value in text, like for 1 it prints "one", for two it prints "two."
   b. If the value is above nine, and it is even, then "Even" is displayed on the console.
   c. If the value is above nine and it is odd, then "Odd" is displayed on the console.

2. Write a program that generates the first 20 numbers of the Fibonacci sequence using a for loop.

3. Print the following hollow star pattern using a for loop:

```
*****
*   *
*   *
*   *
*****
```

4. Print the following pyramid star pattern using C++ for Loop:

```
    *
   ***
  *****
 *******
*********
```

5. Print the following Diamond Star pattern using C++ for Loop:

```
    *
   ***
  *****
 *******
*********
 *******
  *****
   ***
    *
```

6.  Write C++ code to print plus pattern using for Loops:

```
  *
  *
*****
  *
  *
```

7.  Write C++ code to find out the prime numbers in a given range of numbers.

8.  Write down C++ code to swap two numbers, without using third numbers.