## Experiment No: 25

## **Experiment Name:** Prime Number or Not

## **Objective:**

The goal of this program is to determine whether a given number is a prime number or not. The prime number checking algorithm is implemented to showcase the use of conditional statements and loops in C programming.

# **Code:**

#include <stdio.h>

int main() {

int loop, number;

int prime = 1;

scanf("%d",&number);

for(loop = 2; loop < number; loop++) {

if((number % loop) == 0) {

prime = 0;

}

}

if (prime == 1)

printf("%d is prime the number.", number);

else

printf("%d is not a prime number.", number);

return 0;

}

# **Input:**

7

# **Output:**

7 is the prime number.

## **Discussion:**

The program effectively determines whether a given number is a prime number or not using a loop and conditional statements.

The assumption of primality by default and subsequent updating of the isPrime flag simplifies the logic for output.