

Check Prime: Using For Loop

Problem Statement: Given any Integer, check whether it is Prime or Not.

Approach to be followed:

- A prime number is always positive so we are checking that at the beginning of the program.
- Next, we are dividing the input number by all the numbers in the range of 2 to (number - 1) to see whether there are any positive divisors other than 1 and the number itself (Condition for Primality).
- If any divisor is found then we display, **"Is Prime"**, else we display, **"Is Not Prime"**.

```
# taking input from the user
number = int(input("Enter any number: "))

isPrime= True
if number > 1: # prime number is always greater than 1
    for i in range(2, number):
        if (number % i) == 0: # Checking for positive divisors
            isPrime= False
            break

if(number<=1): # If the number is less than or equal to 1
    print("Is Not Prime")
elif(isPrime):
    print("Is Prime")
else:
    print("Is Not Prime")
```