

Prime number test

Jan Kamburg

September 21, 2015

In this project we had to write a program which tests if numbers are prime numbers or not. In the following part i will show how i accomplished it.

PYTHON CODE

```
Int = 5
IsPrime = True

if Int != 0:
    for x in range(2, Int / 2):
        if Int%x == 0:
            IsPrime = False
            break

    if IsPrime:
        print "Its a prime number"
    else:
        print "Its not a prime number"

else:
    print "0 is an invalid number!"
```

"Int" defines the number we want to check.

With "IsPrime" we first assume that "Int" is a prime number.

I am starting the code with an if statement to check whether "Int" is 0 because it would be an invalid number

If "Int" isn't 0 then a loop is starting.

The loops range is calculated by "Int". For cheking for prime numbers it is not needed to loop through every number "Int" could possible be devided through.

Because i eliminated all possible problems with invalid numbers before the loop i can now check for prime numbers.

Using the If the has number after the "." it's not a prime number. So we set IsPrime to False and we stop the loop.

After that we do the output. If IsPrime is True then we say its a prime number, if not then we say its not a prime number.

The next part is about the different outputs the program can give.

OUTPUTS

1. Its a prime number
2. Its not a prime number
3. 0 is an invalid number!

The first output is printed when the number is a prime number.

The second output is printed if the number is not a prime number.

The third output is printed if the number to check is a 0.