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COMSC 140 Python

Program Documentation for Midterm 2 Q2 Prime Number Generator

1/ Link  
<https://github.com/DVC-COMSC/midterm-2-question-2-enduringwriter/blob/main/main.py>

2/ Program Purpose  
This program generates prime numbers between a specified range using a generator function. Yield is used to return the prime number and iterate the for loop.

Assumption: begin input is less than end input.

3/ Input/Output Description  
Input: begin, end are integer values and provide the range to search for prime numbers.  
Output: list of prime numbers between the specified range.

4/ Explanation of All Variables  
number / i = number to check if it is a prime number

Begin = start of the range

End = end of the range

5/ Flow Chart  
Start > Input begin and end numbers > Define isPrime function > Define getPrimeNumber > Loop from begin to end using a For loop > For each number, check if it is a prime number by calling the isPrime fuction > If prime, yield is used to gather the prime number(s) and iterate through the for loop > Convert generator to list using list() and print > End.

6/ Lesson Learned  
Create a function, call a function within a function, use generator and yield for performance and conserving memory, and learn to apply Boolean with conditions.

7/ Errors

Used equal (=) sign rather than equality (==) sign. Indentation block error was fixed for line “if number % i == 0:”