ITSC202 - Project 09-01

Part A, weight 0.6

Write a program **`funprimes.c`** that will print prime numbers up to a value defined by macro:

#define COUNT 100

The program will have following structure:

Declare integer array for the prime numbers:

int primes[COUNT];

Fill in the array such that each element has the value of its own index in the array:

[0,1,2,3,4,5,...]

Define function testone(primes, prime_candidate), which will test the prime_candidate for primeness by dividing it by all non-zero elements of the prime[] array and return 1 if the prime_candidate is a prime number, otherwise return 0.

For each element of the array, call function testone(primes,PrimeCandidate).

In the main(), function, if the call to function testone is not prime, replace that element in the array with 0.

Finally, print all non-zero elements in the array, do not exceed 80 characters per line.

Part B, weight 0.3

`funprimesb.c`: if there is a command line parameter, parse it, check it for errors, and use it as the number of primes to generate. If there is no parameter, exit with error.

Part C, weight 0.3

`funprimesc.c`: if there is a command line parameter behave same as funprimesb.c. If there is no command line parameter, prompt user:

Number of primes to print:

get a response, check for errors, if necessary, prompt user again.