

Name your program: p4.c

Have you ever wondered what the 76<sup>th</sup>, 100<sup>th</sup> or 10,000<sup>th</sup> prime number is ? Well, many people do -- especially mathematicians. So your job is to create a program that will allow a user to ask the computer to figure out what the n<sup>th</sup> prime number is. See the use-case below:

USE-CASE NAME / ID	Calculate the nth Prime Number
ACTORS	cse 121: student, instructor
PRE-CONDITIONS	User is authenticated to use ctec.clark.edu server
POST-CONDITIONS	User is informed of the nth Prime Number
OVERVIEW	<p>This use-case prompts the user for the nth prime number to calculate, then calculates and displays the value of that prime number on the screen. For example: User asks for the 3rd prime number (i.e. enters 3). Application prints on the screen, "That Prime Number = 5"</p> <p>Note: 1 is not considered a prime number, so the 1st prime number is 2, 2nd is 3 and the 3rd is 5.</p>
DESCRIPTION	
<ol style="list-style-type: none"> <li>1. <b>User</b> --- types ./p4</li> <li>2. <b>Application</b> --- displays on the screen, "For which prime number do you want to know the value?"</li> <li>3. <b>User</b> ---- enters the nth prime number he/she wants calculated and hits return.</li> <li>4. <b>Application</b> --- displays on screen the value of the nth prime number the user requested, and exits.</li> </ol>	
NOTES AND TBDs	
<p>Note: The number 1 is not considered a prime number.</p> <p>TBD: What to do if the user enters a number that will take too long to calculate (i.e. what is considered too long)</p>	

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500 <sup>th</sup> Prime Number is:	5,000 <sup>th</sup> Prime Number is:	50,000 <sup>th</sup> Prime Number is:

Use the following command to submit your p4.c code  
 cp p4.c /home/faculty/skoss/cse121/your\_UID

Also, fill in the table above and hand it in on the following Monday