PROBLEM SET 2: INTRODUCTION TO COMPUTER PROGRAMMING

LAB ASSIGNMENT – 2A: *Polar to Rectangular*

Overview:

Convert polar coordinates to rectangular coordinates. This type of conversion is particularly useful in Electronics when discussing complex numbers such as AC phasors. You will need to do some research to determine the correct formula(s).
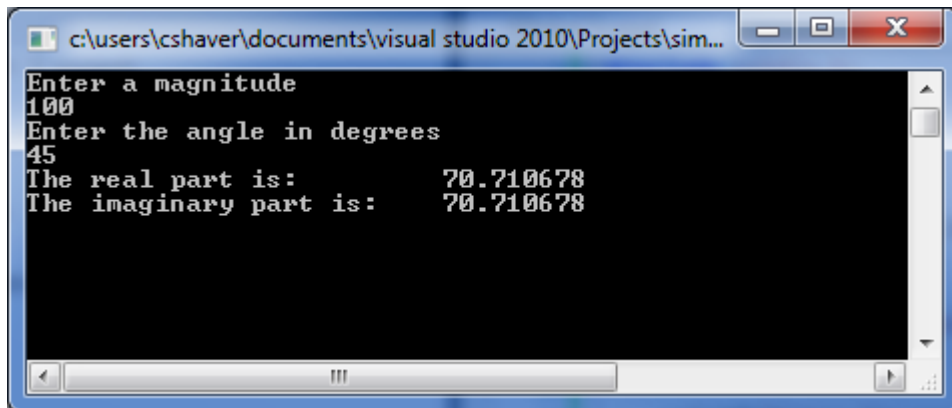
Objective:

Using your textbook, notes and personal research material, write a program using the C Programming language that will display the desired output on the command screen per the specifications provided.

Specifications:

Input: 2 numbers from keyboard
Process: Prompt for inputs, perform the required math processes, display output.
Output:


```
c:\users\cshaver\documents\visual studio 2010\Projects\sim...
Enter a magnitude
100
Enter the angle in degrees
45
The real part is:        70.710678
The imaginary part is:   70.710678
```

REPORTING: Submit your executable file, **documented** source code and screen shot of your output for proper consideration. As part of your source code documentation, identify any limits to the expected input, output and/or processing.

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