ISYS 350, Spring 2022, Programming Assignment 1, Due Date: 2/14/22

The formula to calculate the monthly payment, given loan L, term T in year and annual interest rate R is shown below.

$$Monthly\ payment = \frac{L \times \frac{R}{12}}{1 - \frac{1}{(1 + \frac{R}{12})^{12 \times T}}}$$

Create a python program that uses input statements to ask user to enter loan, term in year and annual interest rate, and compute and display the monthly payment **with a currency format**. **Do not use other formula to compute the payment.** Submit the source code and the result of the program as it runs. You copy the source code and paste to a Word document, and run the program with the test data, and copy/past the output lines to the Word document. **Submit the Word document by email attachment.**

Note 1: Test your program with the following data: Loan = $800,000, annual rate = 4.2%, term = 30 years. You may use Excel's PMT function to verify your output.

Note 2: The annual interest rate should be entered without the percentage sign. For example, 3.5% should enter as .035. Use the input statement to explain how to enter the rate. For example: input('Please enter interest rate (4.5% entered as 0.045)').

Note 3: Use comment lines to enter your name, section and a brief description of the purpose of this program.

Note 4: Variable names must be meaningful and have **at least 4 characters**.

Note 5: Use the format statement to format dollar figures with currency format and rate with percentage format.

The screenshot of the program is similar to this:

Enter loan:800000

Enter rate(4.5% entered as 0.045):.042

Enter term in year:30

With $800,000.00 loan, 4.20% rate, 30.0 years term, the monthly payment is:$3,912.14