Intro to CS / Python Programming — Programming Assignment #3

Due: See Canvas Due Date — (20 points)

Problem Statement

This program will compute an invoice based on values entered by the user. The invoice computes a total (Gross) bill amount based on the number of hours invoiced and the hourly rate (the gross amount is the product of those two values).

The user provides a discount code of 1, 2, or 3. 1 is 10% discount, 2 is 12% discount, 3 is 15% discount. Any other value results in a discount of 0.0.

An invoice must be printed to the screen. For example. Notice how the invoice amounts line up:

```
------------------- INVOICE ------------------------

Hours Invoiced: 100.0           Hourly Rate:  $ 21.40

Gross Invoice: $ 2140.00
     Discount: $  214.00 (Discount Code 1)
  Net Invoice: $ 1926.00 (Pay This Amount)


------------------ END INVOICE ---------------------
```

After printing an invoice, ask the user if they want to continue and enter another set of data (Y or N). Your program should loop as long as the response is a Y or a y.

Sample Execution

Below is shown a screen capture of what the program would look like if I ran it with two sets of input data. The values in YELLOW are what were entered by the user in this example execution.

```
Welcome to the invoice calculator.

Please enter the hours invoiced: 100
Please enter the hourly invoice rate: 21.40
Please enter the discount code (1=10%, 2=12%, 3=15%): 1


------------------- INVOICE -------------------------

Hours Invoiced: 100.0           Hourly Rate:  $ 21.40

Gross Invoice: $ 2140.00
     Discount: $  214.00 (Discount Code 1)
  Net Invoice: $ 1926.00 (Pay This Amount)


------------------ END INVOICE ---------------------

Would you like to compute another Invoice [Y/N]? y

Please enter the hours invoiced: 235.5
Please enter the hourly invoice rate: 15.25
Please enter the discount code (1=10%, 2=12%, 3=15%): 0


------------------- INVOICE -------------------------

Hours Invoiced: 235.5           Hourly Rate:  $ 15.25

Gross Invoice: $ 3591.38
     Discount: $    0.00 (Discount Code 0)
  Net Invoice: $ 3591.38 (Pay This Amount)


------------------ END INVOICE ---------------------

Would you like to compute another Invoice [Y/N]? n

End Program 2. Goodbye.
```

HINTS/SUGGESTIONS:

- Try to solve the problem for one set of invoice data BEFORE you try to write the loop for the user to enter multiple sets.

Turn In:

- Submit the program file to CANVAS (program3.py)

Grading Requirements

- Your program must be well-commented. Remember to have a section of comments at the top of your program that includes your name, date, course section and a description of what your program does. Refer to my example solutions and the textbook for good style in comments. As your logic becomes more complex, you may need to add additional comments in the body of your program, for example to explain decision logic.
- Use meaningful variable names.
- Your screen output must be formatted the same way as shown in the example execution, including lining up the data as shown. The formatting is part of the problem you are solving.