5-3 Final Project Script One Submission: Rental Car Billing Script

The initial script I wrote for this, didn't work properly, mainly because I did not pay attention to the formula for calculating the totalMiles variable. I was adding the odoStart to odoEnd, instead of subtracting odoStart from odoEnd. This was a simple fix, and the calculations work correctly (line 52).

The program starts by asking the user for the rentalCode, this input is accepted as a string, 'B', 'D', 'W'. Each of these is assigned to the variables chargeBudget, chargeDaily, chargeWeekly, those variables are assigned to integers with the appropriate rate. In the first draft I these variables assigned as integers, however changed that in my final script, as Python automatically recognizes them as integers.

I have shown three examples of conditional statements:

1. Line 21 > rentalPeriod. This statement contains if:elif:else, the variable rentalPeriod is set to accept the user input as an int(). The system prints a confirmation containing a string and the variable rentalPeriod. I print this to ensure all data is accurate at this point, and it is clear and easy to understand.
2. Line 35 > baseCharge. This statement contains if:elif:else, the variable baseCharge is assigned by multiply the rental period by the base charge, respectively. Again, I use the print() function to check all data is accurate to this point.
3. Line 64 > mileCharge. This statement contains if:elif:else with nesting on line 67 and 74.
    1. Line 67 contains a conditional statement with if:else, this calculates the milage charge for the Daily rental rate. If the total average miles is less than 100 per day, then there is not mileage charge, however if the average miles per day exceeds 100, $00.25 is charged per mile on the difference of total miles driven minus 100. >>> extraDailyMiles = int(averageDayMiles) - 100
    2. Line 74 contains a conditional statement with if:else, this calculates the milage charge for the Weekly rate. If the average number of miles driven is 900 or less, there is no milage charge. However if the average number of miles driven exceeds 900 per week, an additional $100.00 is charged per week the car is rented. >>>. mileCharge = rentalPeriod * 100.00

For this project, I used a lot of outside sources. I used repl.it to run the code, test, and debug. I also used Atom, to save the .py file, and also write all the comments. Additionally, I found that Python has an amazing support community, and I joined the email blast tutor@python.org. Here you can ask questions, simple or complex, the community is supportive and insightful, a great resource.

I found the best way to debug this script, was to use the print() function. I was able to double check that user input was accepted accurately, and the equations were correct. All this I did in repl.it.

In summary, the errors I initially had, were small, and honestly mundane simple arithmetic mis-calculations. This was a really fun script to write, and I understand the use of conditional statements and use of int() and input() much more, after apply the theory and skills to a real life scenario.