C7

User Input and while Loops

CHAPTER ASSIGNMENT

Name _____ Class _____ No. _____ Date _____

Answer every question in the space given. Show your working. You may use the chapter page to help you.

Questions from *Python Crash Course*, 2nd edition, Eric Matthes (No Starch Press), for classroom use.

Try It Yourself

7-1 **Rental Car:** Write a program that asks the user what kind of rental car they would like. Print a message about that car, such as "Let me see if I can find you a Subaru."

7-2 **Restaurant Seating:** Write a program that asks the user how many people are in their dinner group. If the answer is more than eight, print a message saying they'll have to wait for a table. Otherwise, report that their table is ready.

7-3 **Multiples of Ten:** Ask the user for a number, and then report whether the number is a multiple of 10 or not.

7-4 **Pizza Toppings:** Write a loop that prompts the user to enter a series of pizza toppings until they enter a `'quit'` value. As they enter each topping, print a message saying you'll add that topping to their pizza.

7-5 **Movie Tickets:** A movie theater charges different ticket prices depending on a person's age. If a person is under the age of 3, the ticket is free; if they are between 3 and 12, the ticket is $10; and if they are over age 12, the ticket is $15. Write a loop in which you ask users their age, and then tell them the cost of their movie ticket.

7-6 **Three Exits:** Write different versions of either Exercise 7-4 or Exercise 7-5 that do each of the following at least once:

- Use a conditional test in the `while` statement to stop the loop.
- Use an `active` variable to control how long the loop runs.
- Use a `break` statement to exit the loop when the user enters a `'quit'` value.

7-7 **Infinity:** Write a loop that never ends, and run it. (To end the loop, press ctrl-C or close the window displaying the output.)

7-8 **Deli:** Make a list called `sandwich_orders` and fill it with the names of various sandwiches. Then make an empty list called `finished_sandwiches`. Loop through the list of sandwich orders and print a message for each order, such as `I made your tuna sandwich.` As each sandwich is made, move it to the list of finished sandwiches. After all the sandwiches have been made, print a message listing each sandwich that was made.

7-9 **No Pastrami:** Using the list `sandwich_orders` from Exercise 7-8, make sure the sandwich `'pastrami'` appears in the list at least three times. Add code near the beginning of your program to print a message saying the deli has run out of pastrami, and then use a `while` loop to remove all occurrences of `'pastrami'` from `sandwich_orders`. Make sure no pastrami sandwiches end up in `finished_sandwiches`.

7-10 **Dream Vacation:** Write a program that polls users about their dream vacation. Write a prompt similar to *If you could visit one place in the world, where would you go?* Include a block of code that prints the results of the poll.

End of assignment · Check your answers against the chapter at gurujazzy.com/subjects/python-crash-course/chapter-7-user-input-and-while-loops/