# Homework 4

Review: the Weather App [due Friday]

July 26, 2017

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**If you have any questions, let me know via email or text!**

In the last lesson, we built together a very cool weather app together. We built this cool weather app using many things we learned... such as:

- if, elif, else
- loops (while, for)
- in
- lists

In this homework, we will review and analyze the code we coded together.
Refer to code.pdf which was attached to the email.
I want you to use the **word** bank below to complete this assignment. Note that **the words in the word bank is used exactly once... all words are used**.

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**Word Bank:**

| | | | |
|---|---|---|---|
| 0 | 10 | 2 | 2 words |
| 28 | 3 | 67 | Thank you for using this app |
| ch | continue | days | empty string |
| exit | gf | gt | list |
| loop | o | opt | option |
| option | prints | q | understand |
| valid | will | will | will |
| will not | will not | zipcode | zipcode |
| zicode is invalid | | | |

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## 1 Checking the User's Zippers

1. In line 13, we are asking the user for their [zipcode].
2. The variable that stores the user's zipcode is called [zipcode].
3. The purpose of line 15 to 17 is to make certain that the user inputed a [valid] zipcode.

4. The meaning of

5. In Line 15, if zipcode = "98105", then the program [will not] go into the body (line 16 and 17) of the if statement.

6. In Line 15, if zipcode = "124567334", then the program [will] go into the body (line 16 and 17) of the if statement.

7. In Line 15, if zipcode = "4321", then the program [will] go into the body (line 16 and 17) of the if statement (Note: this may be a bit tricky).

8. If the program did end up going into the body of the if statement (line 16 and 17), the program will print "[zipcode is invalid]" and [exit] the program.

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## 2 *o*, you want to know the options?

1. In Line 28, we are asking the user for an [option].

2. The variable that stores the user's option is called [opt].

3. In line 29, we are checking if the user inputted [*o*] which stands for [option].

4. In line 30, we call a function called print_options() which is defined from line [3] to [10].

5. print_option() function [prints] out all the options available for the user.

6. On line 31, [continue] means that we will not look at any code from line 32 to 70 and go straight back to the beginning of the loop at line [28].

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## 3 Don't be a *q*uitter!

1. If the option the user typed was not *o* in line 29, then we check if the option inputted [*q*] which stands for quit.

2. If the option the user inputted was *q*, then we print "[Thank you for using this app]" in line 34.

3. If the option the user inputted was *q*, then, in line 34, we break which means that we leave the [loop]. Since there is nothing after the loop, the program ends after "breaking".

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## 4 I d0N't kN0w Waht tH1s m3an5

1. In this code, there are [4] places where we notice that the option the user inputted was incorrect.
2. In line 35-37, we print "invalid query" because the user inputted an [empty string].
3. In line 48-49, we print "invalid query" because the query had 1 word, but the first word was neither 'gt' nor '[gf]'.
4. In line 66-67, we print "invalid query" because the query had [2 words] and the second word was a number and the first word was neither '[gt]' nor 'gf'.
5. In line 69-70, we print "invalid query" because the code was not able to [understand] what the user was trying to say.
6. If option = 'gt', then the program [will not] print "invalid query".
7. If option = 'gt 1 2', then the program [will] print "invalid query".

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## 5 Ok python, what's the weather like in 2 days?

1. The user must type 'gf [2]' to get the weather in 2 days.
2. The code that would get this result is in line [67].
3. While humans start counting from 1, computers start counting from [0].

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## 6 Ok python, when is it going to rain?

1. The user must type '[ch] rain' if the user wants to get the days of when it is going to rain.
2. From line 53 to 57, we are storing all the [days] in numbers whose forecast contains the query that the user specified.
3. days variable in line 53 is of type [list].