Chatterbot

Take a look at the code below. Read it carefully and try to make a prediction about what might happen when this code is executed. Think about what might happen based on different user inputs e.g. anakin / bob

```
1    print("What is your name?")

2    name = input().lower()

3    if name == "anakin":

4      print("How do you do Anakin!")

5    else:

6      print(f"Nice name, {name}")

7    print(f"So {name}, is it hot or cold where you are today?")

8    weather = input().upper()

9    if weather == "COLD":

10     print("You must be freezing!")

11   elif weather == "HOT":

12     print("Drink plenty of water")

13   else:

14     print("I can't advise you on that type of weather.")

15   print("Do you like the colour blue?")

16   likes_blue = input()

17   if likes_blue == "Yes":

18     print("I like blue too")

19   print("Have a good day! Bye!")
```

Enter your prediction below:

<button>Run</button>

Open and **run** the file with this code. Here's a copy of the code (https://replit.com/@awade05/chatterbot#main.py) if needed.

Was your prediction correct? Did anything unexpected happen? Write down your thoughts below:

Investigate

Questions/activities	Your answers ▽
Execute the code and type `ANAKIN` in upper case when asked what is your name. ● What text is immediately output on the screen?	
Execute the code again and type `anakin` in lower case when asked what is your name. ● What text is immediately output on the screen?	
Go to line 2 and delete `.lower()` from the end of the line of code. Execute the code again and type `ANAKIN` in upper case. ● What text is immediately output on the screen?	

Execute the code again and type `anakin` in lower case when asked what is your name.

- What text is immediately output on the screen?

Add the `.lower()` code back to the end of line 2.

- What function do you think `.lower()` performs?

Hint: If you are unsure, enter this code `print(name)` at line 3 to print what has been held in the variable name. Remember to delete it after testing.

Line 8 has `.upper()` at the end of the input.

- What function do you think it performs?

Hint: Use the same investigation techniques as above if you are unsure.

- Why do you think `.lower()` and `.upper()` might be important when you are checking if conditions are True or False?

Line 5 and 6 contain an `else:` and a `print` statement.

- Does the condition `name == "anakin":` need to be True or False for these lines of code to execute?

Lines 9 to 12 contain this code:

```
if weather == "COLD":

  print("You must be freezing!")

elif weather == "HOT":

  print("Drink plenty of water")
```

- If the user enters `cold` to the weather question, what will be output on the screen directly after?

- If the user enters `hot` to the weather question, what will be output on the screen directly after?

Lines 13 to 14 contain this code:

```
else:

  print("I can't advise you on that
type of weather.")
```

- What does the user need to enter for it to output "I can't advise you on that type of weather"?

Lines 17 and 18 contain this code

```python
if likes_blue == "Yes":

  print("I like blue too")
```

- What does the user need to enter for "I like blue too" to be output?

What is displayed on the screen if the user types
yes, YES or anything else?

Modify

Modification	Hint
Adapt the code on lines 16 and 17 so that the input is converted to **upper case** and this is checked in the **condition**.	Take a look at line 8 and 9 to see how it has been achieved there. Remember to test your code.
At line 7, introduce an `elif` branch that checks if the name is Leia. If the name is Leia, then the message should display "The force is with you".	Look at the `elif` used for when the weather is hot to see how to structure the code. Remember to test your code. **Common errors** ❑ The `elif` has been indented (make sure that it is in line with the if above) ❑ leia not written in lowercase inside the condition ❑ A colon `:` is missing from the end of the condition. ❑ The `print` statement is not indented under the `elif`

Use an `else` with the final `if` statement.

Remember that `else:` doesn't need a condition.

```python
if likes_blue == "YES":
```

Remember to test your code.

If the user doesn't enter `Yes` when asked if they like blue, then the program should output "That's a shame because I really like blue".

Common errors

❏ `else` has been spelt with a capital E

❏ The colon : is missing after the else

❏ The `print` statement underneath isn't indented

Explorer task

- Modify the program further by adding in another question at the end. Use `if`, `elif`, `else` to provide tailored responses.

- Rephrase the questions and responses to the questions to something different. For example, what is your favourite breed of dog?