



Chatbots with Personality

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Modified by Dr. Brian Fraser



Let's **review** some concepts

What does this output if the user types **kale**?

```
salad = input("What salad do you want to eat? ")
if salad == "lettuce" or salad == "kale":
    print("That's healthy.")
if salad == "kale":
    print("That's great.")
else:
    print("Woo!")
```



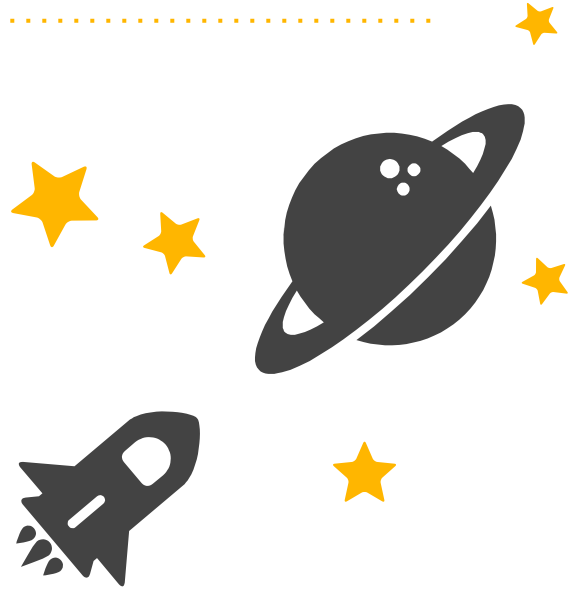
Let's **review** some concepts

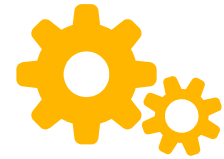
What does this output if the user types **kale**?

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Industry

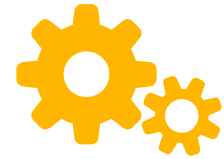
Realities about being a software engineer



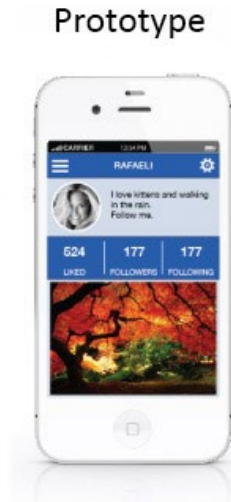
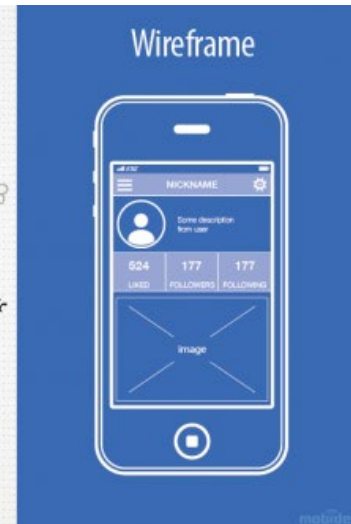
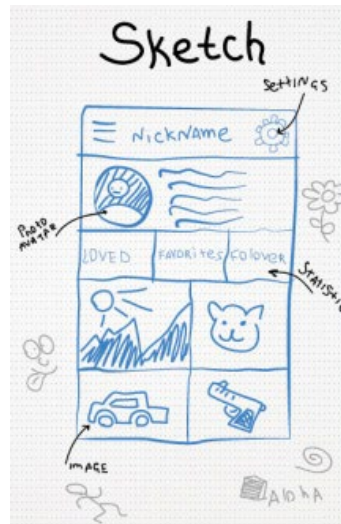


Standup Meetings





Design / prototype phase



Good Software?

What makes for good software and clean code? It involves:

- **Usable** (Good UX: User Experience)
- **Pleasing to read code** (e.g. formatting, variable names)
 - Need "maintainable" code.
- **Minimizes duplication** (e.g. use import vs re-write)
- **Robust to errors** (e.g. various types of input)
- **Efficiency** (to be discussed later in the course)

Code reviews



Basic Code Reviewer

And of course... does it **work**?

About your weekly assignment

Marking Notes

- If your program does not run, your mark will be calculated using the rubric and then multiplied by 0.5. To avoid this penalty, try to finish early so you can get help from TAs if needed! It is better to submit code that works perfectly but doesn't contain all the features, than on that has all the features (potentially) but crashes.

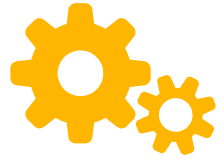
How to name your file

- Avoid spaces in your file name,
- e.g. **myprogram.py** or **my_program.py** but not **my program.py**

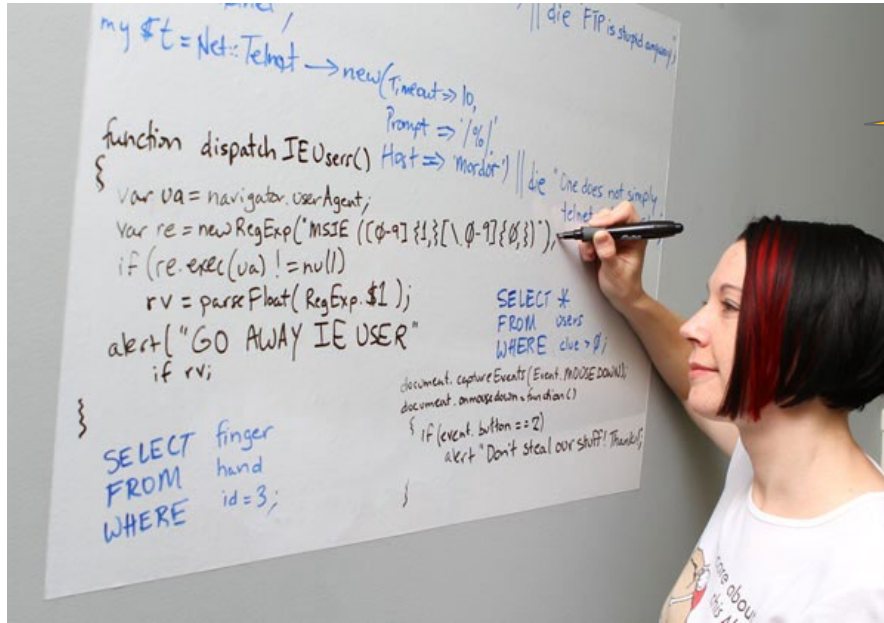
Self-test

This is a practice quiz. **It's not for marks.**
Try to do it without looking at your notes.





Coding interviews



Whiteboard coding interviews

Question 1

5:00

Write a **fortune cookie generator** that prints out a random fortune when the program is run.

Here are 3 sample runs:

```
Python 3.6.1 (default, Dec 2015, 13:05:11)
[GCC 4.8.2] on linux
>
You will have great success.
> █
```

```
Python 3.6.1 (default, Dec 2015, 13:05:11)
[GCC 4.8.2] on linux
>
You will become rich.
> █
```

```
Python 3.6.1 (default, Dec 2015, 13:05:11)
[GCC 4.8.2] on linux
>
You will find love.
> █
```

Question 2

Write a **CoffeeBot** that asks if you would like cream.

It should accept Yes/yes or No/no as inputs, and reply appropriately depending on the answer.

If the user inputs anything else, it should repeat back their answer and say that it does not understand.

Here are 4 sample runs:

```
>
I'm CoffeeBot. Would you like cream with your coffee? (Yes/No)
Yes
Here's your coffee with cream.
> |
```

```
>
I'm CoffeeBot. Would you like cream with your coffee? (Yes/No)
yes
Here's your coffee with cream.
> |
```

```
>
I'm CoffeeBot. Would you like cream with your coffee? (Yes/No)
No
Here's your coffee, no cream.
> |
```

```
>
I'm CoffeeBot. Would you like cream with your coffee? (Yes/No)
asdf
Sorry, I don't know what asdf means.
> |
```

Strategies

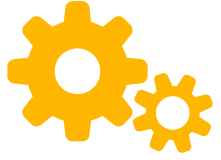
How do you do problem solving?





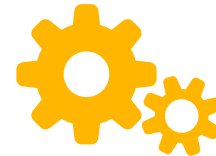
Problem Solving **Strategy 1**

Design your algorithm using a concrete example.



Problem Solving **Strategy 2**

Break down a large problem into smaller parts.



This will become a Canvas Practice Quiz

▼ Week 2 - Chatbots



[Required Readings] Week 2 - First Programs and Conditional statements

Sep 16 | 0 pts



[Coding Exercise] Week 2 - Create a Celebrity Chatbot

Sep 21 | 10 pts



[Reflections] Week 2 - Getting to know you

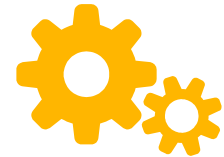
Sep 21 | 5 pts



[Practice Quiz] Week 2 - Fortune Cookie Generator, CoffeeBot

0 pts





Canvas Practice Quiz

Type your code in the box. Instead of <tab>, use 2 spaces for each indentation.

Looks a bit nicer for code, but not required

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```
# Coffeebot  
# Name  
# Date
```

Answers

Example solutions, for your reference.





Question 1

```
1 # Question 1: Fortune Cookie Generator
2 # Author: Angelica Lim
3 # Date: Jan. 12, 2018
4 # Generates a random fortune
5
6 import random
7
8 # Create a list
9 fortunes = ["have great success.", "find love.", "become rich."]
10
11 # Select random
12 random_fortune = random.choice(fortunes)
13
14 # Output
15 print("You will " + random_fortune)
```



Question 2

```
1 # Question 2. CoffeeBot
2 # Author: Angelica Lim
3 # Date: Jan. 12, 2018
4
5 # Asks if you want cream or not (Yes/No)
6 print("I'm CoffeeBot. Would you like cream with your coffee? (Yes/No)")
7
8 # Get input
9 response = input()
10
11 # If you want cream, say here's your coffee with cream
12 - if response == "Yes" or response == "yes":
13     print("Here's your coffee with cream.")
14
15 # Otherwise if they say no, say here's your coffee no cream
16 - elif response == "No" or response == "no":
17     print("Here's your coffee, no cream.")
18
19 # In all other cases, say I don't know what ___ means
20 - else:
21     print("Sorry, I don't know what " + response + " means.")
22
```



Self reflection

- Where did I get stuck?
- Any errors I often get?
- How awesome am I to be writing full ChatBot programs already?