The intermediaries

W3Schools is my main resource for making these slides and I **HEAVILY** recommend using it as your go to resource for Python development.

Another resource I would recommend for fixing errors is Stack Overflow

https://www.w3schools.com/python/ https://stackoverflow.com/

Lists

There are many ways to interact with lists in Python. For more detailed info go to:

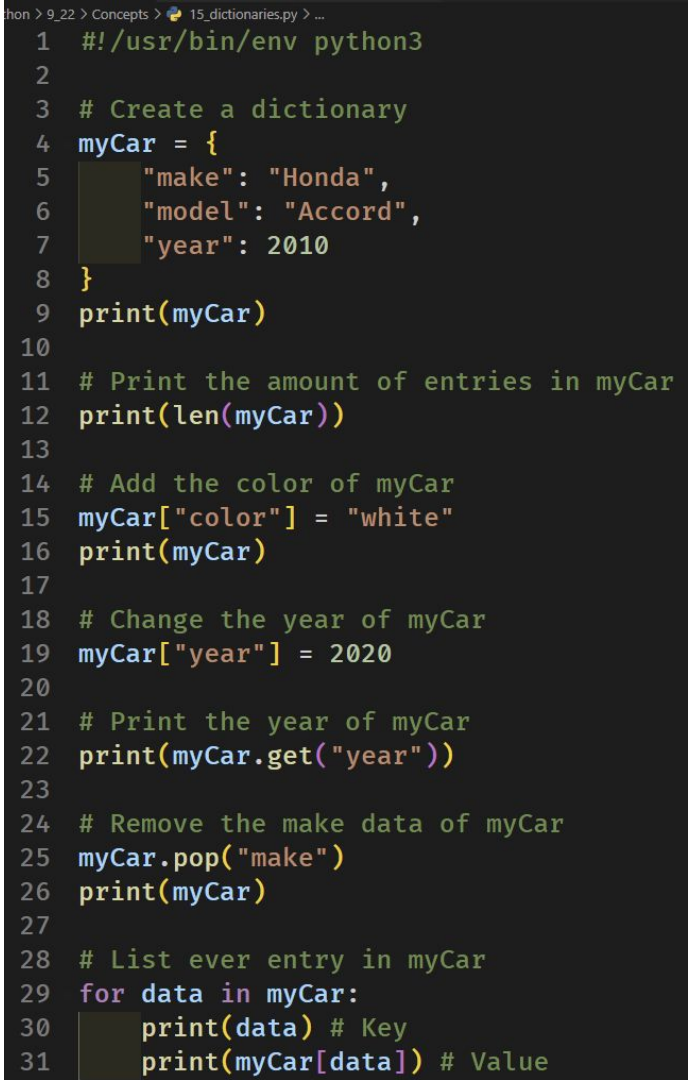
https://www.w3schools.com/python/python_lists.asp

thon > 9_22 > Concepts > 14_lists.py > ...

```python
#!/usr/bin/env python3

# Create a list with different data types
myList = ["Item 1", 2, 3.5, True]

# For every item in the list state it's type
for item in myList:
    print(type(item))

print(myList)
# For every item in the list change it's value to index number
for index in range(len(myList)):
    myList[index] = index

# Insert a string in to the middle of the list
myList.insert(2,"I'm not supposed to be here")
print(myList)

# Append another string to the list
myList.append("I'm at the end!")
print(myList)

myList.remove(2) # Removes the 2 entry in the list
print(myList)

myList.pop(2) # Removes the 3rd entry in the list
myList.pop(-1) # Removes the last entry in the list
print(myList)

myList.sort(reverse=True) # Sorts list numerically backwards
print(myList)
```

Dictionaries

Dictionaries are used to store data values in key:value pairs.



Project 3!

Project time! This is going to combine most of the concepts we have learned so far.

Your objective is to make a program that will delete items off your grocery list when the user enters them:

[“Apples”, “Oranges”, “Bananas”]

What item should I remove? Apples

[“Oranges”, “Bananas”]

REMINDER: You can always reuse code from other projects to speed up dev

Challenge 1: Have line spacing after every result

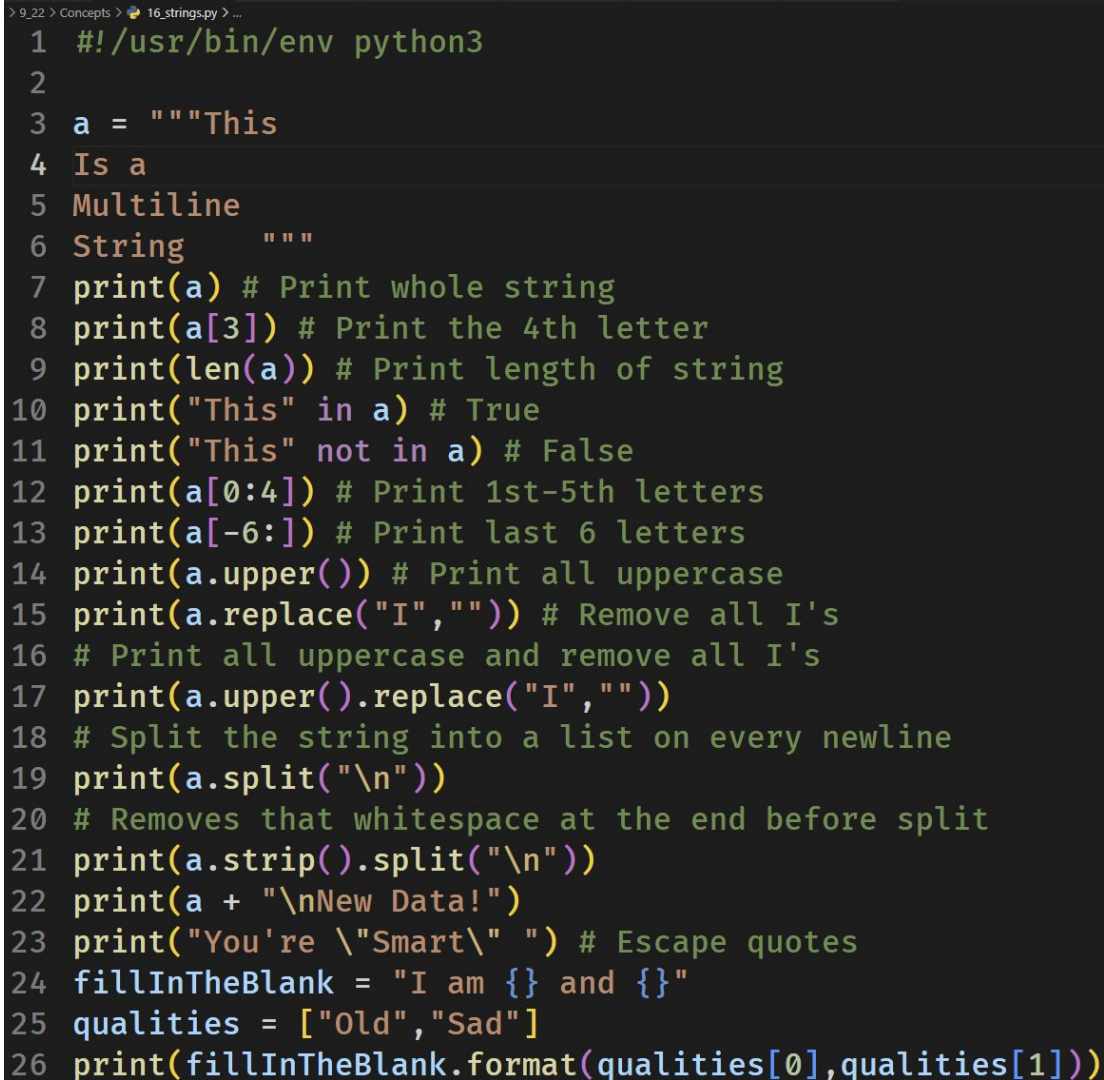
Challenge 2: Tell the user if what they entered isn’t in the list

Challenge 3: make your program accept “Apples” but also 0 as an option

```python
#!/usr/bin/env python3

groceryList = ["Apples", "Oranges", "Bananas"]

while len(groceryList):
    print(groceryList)
    userInput = input("What item should I remove? ")
    try:
        userInput = int(userInput)
    except:
        if userInput in groceryList:
            groceryList.remove(userInput)
        else:
            print("That's not on our list!")
    else:
        if userInput < len(groceryList):
            groceryList.pop(userInput)
        else:
            print("That's out of range of the list!")
    finally:
        print("\n")
```

String Manipulation

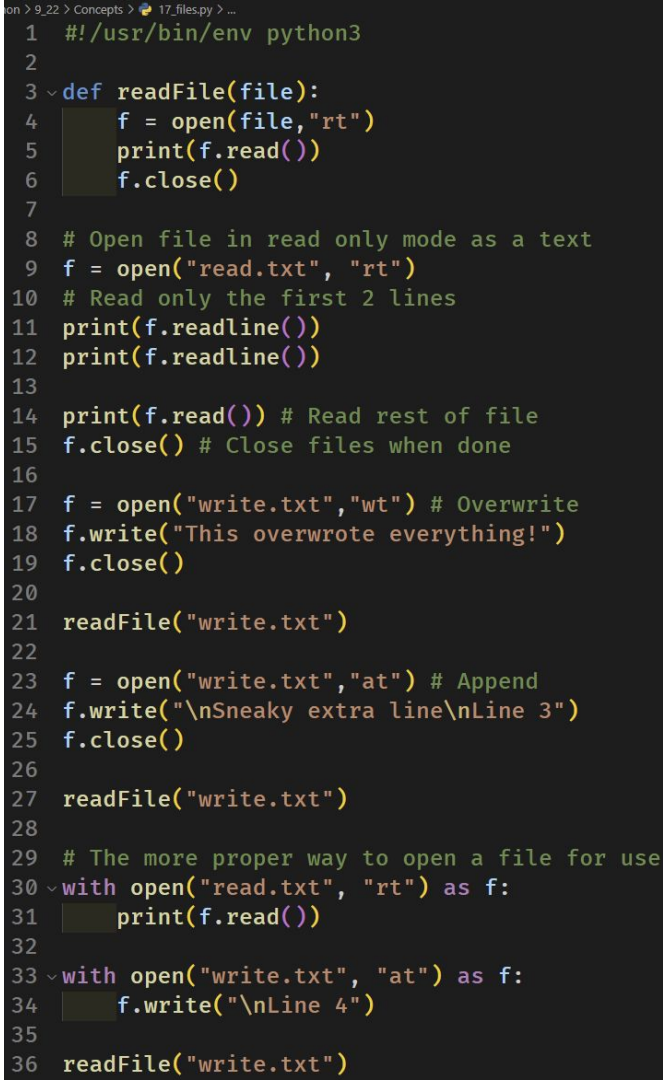
Being able to manipulate strings allows you to give the user a custom tailored experience and improve their experience.



File Management

Being able to access and manipulate files is very important when it comes to developing games.

This will most of the time be used to save and persist user settings in a file like a settings.json



Project 4!

Project time!

Your objective is to program a function that will edit a user’s config file when they respond with 0, 1, or 2

Fullscreen: False

Monsters: False

Permadeath: False

What setting should I change? 1

Fullscreen: False

Monsters: True

Permadeath: False

```
#!/usr/bin/env python3

def readConfig():
    with open("settings.txt", "r") as f:
        return f.read()

def writeConfig(string):
    with open("settings.txt", "w") as f:
        f.write(string)

def toggle(index, config):
    if "True" in config[index]:
        config[index] = config[index].replace("True","False")
    else:
        config[index] = config[index].replace("False", "True")
    config = config[0] + "\n" + config[1] + "\n" + config[2]
    writeConfig(config)

while True:
    config = readConfig()
    print(config)
    config = config.split("\n")
    try:
        userInput = int(input("What setting should I change? "))
    except:
        print("That's not an integer!")
    else:
        if userInput < 3:
            toggle(userInput, config)
        else:
            print("That integer is too large!")
```

My Solution