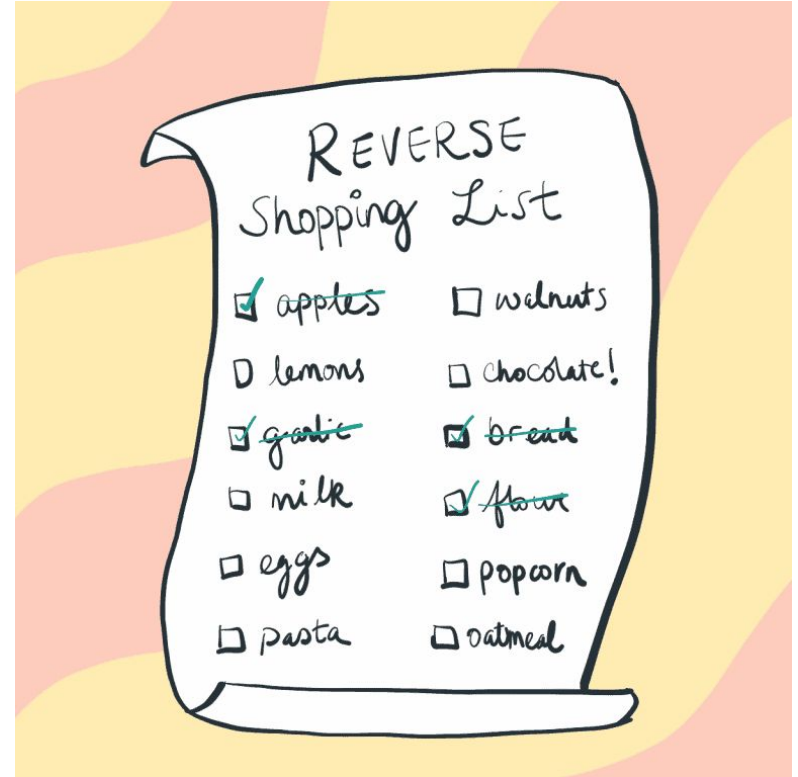# Lists

Mr. Poole
Python

What are lists?

Lists are used to store multiple items in a single variable!

Creating a list!

Defined by a variable!

```
thislist = ["apple", "banana", "cherry"]
```

Variable for list!

Items in list!

How to reference a list

When working with a list, we introduce the topic of **indexes**.

We reference each item by their index.

```
thislist = ["apple", "banana", "cherry"]
```
Index   0   1   2

We always **start counting at 0**!

How to reference a list

```
thislist = ["apple", "banana", "cherry"]
```

Index   0   1   2

thislist[0] prints out the 0th value of **thislist**

```
print(thislist[0])
print(thislist[1])
print(thislist[2])
```

How to reference a list

```
thislist = ["apple", "banana", "cherry"]
```

Index   0   1   2

Given the indexes above. We can write the following to print each value out!

```
print(thislist[0])
print(thislist[1])
print(thislist[2])
```

Output:
```
apple
banana
cherry
```

Printing an entire **List**

Beyond just printing item by item, we can **print the entire list**!

```
thislist = ["apple", "banana", "cherry"]
print(thislist)
```

Output of the above: `['apple', 'banana', 'cherry']`

Sidenote: Random in Python

Below is how your create a random number!
This will be used in the lab

```python
import random
print(random.random())       # random number between 0 and 1, inclusive of 0
print(random.randrange(3))   # from 0 to 3, inclusive of 0
print(random.randrange(3,9)) # from 3 to 9, inclusive of 3
```

Lab: Lists

1. Make a random joke generator!
2. Create a list of 5 different one line jokes!
3. Out of that list of five, generate a random number and print that joke out!