Loops

[1]

```python
primes = [2, 3, 5, 7]
for prime in primes:
    print(prime)

print()

for n in range(len(primes)):
    print(primes[n])
```

=>

```
2
3
5
7

2
3
5
7
```

[2]

```python
count = 0
while count < 5:
    print(count)
    count += 1  # count = count + 1
```

=>

```
0
1
2
3
4
```

- Use loops to go through lists one by one

- The two main types of loop in Python are **for** [1] and **while** [2] loops

- **for item in list:** is a shorthand that assigns each item to a variable (**item** in this case)

- otherwise, you can use **range(len(list))** to go through each index

- **while** loops keep on going until a condition is met, then stop when it becomes **True**

Exercise: fizz_buzz

```
1
2
Fizz
4
Buzz
Fizz
7
8
Fizz
Buzz
11
Fizz
13
14
FizzBuzz
```

- A classic interview question!

- Write a function that takes a number to go up to

- Then it counts up the numbers

- It prints "Fizz" if the number divides by 3

- It prints "Buzz" if the number divides by 5

- It prints "FizzBuzz" if the number goes into both 3 and 5

- It prints the number in all other cases

- See the example from 1 - 15 on the left

- The modulo operator **%** sure comes in handy here!