SECTION 13: PYTHON GENERATORS - 17 minutes, 3 parts

2/3 Generators Homework Overview

- **iterators and generators homework solutions**
  - **generating the sum of squares**
    - -> creating a generator which generates the squares
    - -> for in in range N
    - -> we want to yield i**2
  - **random number generator**
    - -> then create a generator for random numbers
    - -> we are yielding a random integer
    - -> then use the iter() function to convert the string into an iterator
  - **converting a string into an iterable**
    - -> by using iter()
  - **explain a use case for a generator**
    - -> a case where we would want to use an iterator for normal memory management
    - -> using a yield statement where we would not want to use a normal function, or a return statement
  - **extra problem**
    - -> he has given us a gencomp variable, and we are being asked to explain what it's doing

```
In [4]: def rand_num(low,high,n):

            for i in range(n):
                yield random.randint(low, high)
```

```
In [5]: for num in rand_num(1,10,12):
            print(num)
```

```
3
9
6
```