1) . What is the difference between enclosing a list comprehension in square brackets and parentheses?

* [list comprehension] generates list of result
* (list comprehension) gives generator object

**Example:**

lst = [1,2,3,4,5,6,7,8]

[i+3 for i in lst]

output: [4, 5, 6, 7, 8, 9, 10, 11]

(i+3 for i in lst)

<generator object <genexpr> at 0x000001F33F9A0200>

2) What is the relationship between generators and iterators?

* Iterator is created using iter() and next() functions and implemented using class. It returns an iterator object, accessing one element at a time from iterable.
* Generator is created using a function or list comprehension, it returns a generator object i.e accessing sequence of elements from iterable. It uses the ‘yield’ keyword to hold the output.

3) What are the signs that a function is a generator function?

* presence of one or more yield statements.

4) What is the purpose of a yield statement?

* returns a value and pauses the execution while maintaining the internal states unlike a return statement, returns a value and terminate the execution of the function

5) What is the relationship between map calls and list comprehensions? Make a comparison and contrast between the two.

* list comprehension returns list of results. It is faster to execute and evaluate expressions that are longer and it also allows filtering.
* map returns map object of iterable and doesn’t return any list.