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

When we enclose list comprehension in square brackets it creates a list but when we enclose it in parenthesis it creates a generator object.

**2) What is the relationship between generators and iterators?**

A process which repeats itself multiple times by applying the same logic is called iteration. An iterator is an object which holds some number of values to iterate over iterable objects. iter() keyword is used to covert an iterable object to iterator so wecan iterate over it. E.g. For loop interanally used to iterate over iterable items like list, tuple and str.

Generator is a type of function which is used for repetitive tasks. Instead of return type function generators don’t store data so they are very good when we need to perform some operations on large data. Keyword yield is used to generate a generator.

Every generator is an iterator but every iterator is not a generator.

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

When instead of return yield is used then that function is a generator function. Generator function only return generator object, to get all values we need to apply list or tuple function to the generator object.

**4) What is the purpose of a yield statement?**

Keyword yield is used for a generator function. A generator doesn’t remember all output values instead it remembers last output and logic of the output.

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

map() function is used to apply a function to many items stored in an iterable object like list, tuple and str. Map returns a map object.

List comprehension is a concise way of mapping where we can’t use any function previously defined though we can apply the same function logic here if function is a simple one.

We can use any predefined complex function in map calls to apply it on iterable object.