PYTHON ASSIGNMENT 25

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

   The difference between enclosing a list comprehension in square brackets and parentheses is that a generator is defined using parentheses, while list comprehensions are defined using square brackets.

2. What is the relationship between generators and iterators?

   Iterators are object that use the next() method to get the next value of the sequence.
   A generator is a function that produces or yields a sequence of values using a yield statement.
   Classes are used to Implement the iterators. Functions are used to implement the generator.

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

   A generator function is a function with one or more yield statements in it.

4. What is the purpose of a yield statement?

   The yield statement returns a generator object to the one who calls the function which contains yield, instead of simply returning a value.

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

- List comprehension returns a list, whereas the map function returns an object of Iterable.
- List comprehension execution is faster than that of map function when the formula expression is huge and complex.
- Map function is faster than list comprehension when the formula is already defined as a function earlier.