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

Ans: A list comprehension which is enclosed by. A parenthesis is called as a generator

lst\_1=[i for i in range(10)]—this is a list comprehension

lst\_2=(i for i in range(10))—this is a generator

1. What is the relationship between generators and iterators?

Ans: iterator is used to iterate over an iterable object, we can use iter() to make the iterable an iterator and then can use next() to loop through the iterator in sequence.

Generator are used to perform the same functionality but in a function and by using yield keyword.

Both of them are used to iterable over the loop and save the information of the last execution so that when the next call is made (either next(), yield) , the execution cam continue from tat part

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

Ans: if the function contains yield instead of return then it will be called as a generator function

1. What is the purpose of a yield statement?

Ans: yield creates a sequence of values.

We can use yield when we want to iterate over a sequence but we don’t want to save the complete sequence in the memory

Thus when we are using the yield , the function will return a value and the save the execution information, so that when the generator is called again, the function will run from that point and not restart .

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

Ans: list comprehension is just a concise way of writing the function where we can perform any operation untill the operation is relatively simple and can be written in a line.

Map is usually used when we want to perform some function on an iterable object, ie map(function, iterable) will cause the function to run on each and every element of the iterable.

However list comprehension is more versatile as compared to map