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

Comma-separated items enclosed by ( and ) are tuples, those enclosed by [ and ] are lists.

Square brackets are [lists](http://docs.python.org/tutorial/datastructures.html#more-on-lists)[] , Mutable, Ordered.

 parentheses are [tuples](https://docs.python.org/tutorial/datastructures.html#tuples-and-sequences).() , Immutable , Unordered,tuple is hashable meaning that you can use it as a key to a dictionary, A comma must be included in a tuple even if it contains only a single value. e.g. (1,) instead of (1). Tuplevalue(1) is integer object not tuple.

1. **What is the relationship between generators and iterators?**

Iterators are the objects 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.

Integer are not iterable but they are iterators. We can convert string to iterable using ITER(Stringval) Function.then call the each chars using next(stringvalue)

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

If a function contains at least one yield statement it becomes a generator function.

1. **What is the purpose of a yield statement?**

To avoid high CPU utilization and memory usage Yield is used.  The yield statement returns a generator object to the one who calls the function which contains yield, instead of simply returning a value. We can write a loop to get the Function Yielded value. It will not destroy the local variables’ states. Whenever a function is called, the execution will start from the last yield expression

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

map() is faster than list comprehension when we don't use lambda function , Map is the Iterator. If we use Lambda in List comprehension then map will be bit slower. Task wise , both will display the same output.