Python Module 1 assignment

Q.1 Python does not support do-while loop. How can you implement the same functionality in python?

Ans- python does not support do-while loop ,python language supports two types of iterative statements-while loop and for loop.In the while loop, the condition is tested before any of the statement in the statement block is executed, it is needed to update the condition of the while loop to prevent it from becoming infinite loop. for loop is usually known as definite loop as the programmer know the number of times the loop will repeat.

Q.2 Differentiate between list/tuple/ dictionary ?

Ans-List and Tuple objects are sequences. A dictionary is a hash table of key-value pairs. List and tuple is an ordered collection of items. Dictionary is unordered collection.List and dictionary objects are mutable i.e. it is possible to add new item or delete and item from it. Tuple is an immutable object. Addition or deletion operations are not possible on tuple object.Each of them is a collection of comma-separated items. List items are enclosed in square brackets [], tuple items in round brackets or parentheses (), and dictionary items in curly brackets {}.

Q.3 Differentiate between recursion and iteration ?

Ans-The Recursion and Iteration both repeatedly execute the set of a code. Recursion is when a statement in a function calls itself repeatedly until the base condition is satisfied. The iteration is when a loop repeatedly executes until the controlling condition becomes false. The primary difference between recursion and iteration is that recursion is a process,

always applied to a function and iteration is applied to the set of a code which we want to get repeatedly executed.

Q.4   What do you mean by documentation string? How and when it is used?

Ans- python documentation strings (or docstrings) provide a convenient way of associating documentation with Python modules, functions, classes, and methods. As we can see, even for a relatively simple function, documenting using comments quickly makes it unpleasant and difficult to read. So, to solve this, the docstring was introduced. A docstring is simply a multi-line string, that is not assigned to anything. It is specified in source code that is used to document a specific segment of code. Unlike conventional source code comments, the docstring should describe what the function does, not how.

Q.5 Why are lambda functions required. What are the different ways in which lambda functions are created and used?

Ans- A lambda function is a small function containing a single expression. Lambda functions can also act as anonymous functions where they don't require any name. These are very helpful when we have to perform small tasks with less code.

 Lambda arguments: expression

Ex- lambda x,y:x+y