1. What is the relationship between def statements and lambda expressions ?

ANS The def keyword is used to define normal functions, while the lambda keyword is used to define anonymous functions. They are, however, limited to a single line of expression. They, like regular functions, can accept several parameters.

1. What is the benefit of lambda?

ANS Lambda frees up your programming resources by taking over the infrastructure management, allowing you to focus more on innovation and development of business logic.

1. Compare and contrast map, filter, and reduce.

ANS What are Map, Reduce and Filter functions in programming? 'Map' applies a function to each element in an array and returns an array of the results, 'Reduce' applies a function to the array and returns a single output, 'Filter' uses a boolean function to select certain elements from an array.

1. What are function annotations, and how are they used?

ANS Most often, however, function annotations are used to denote the data type of a function's parameters and the return type of a function. Variable annotations were first introduced in PEP 484, where type comments are used to annotate variables. These comments indicate the data type of the variables

1. What are recursive functions, and how are they used?

ANS Recursive Function is a function that repeats or uses its own previous term to calculate subsequent terms and thus forms a sequence of terms. Usually, we learn about this function based on the arithmetic-geometric sequence, which has terms with a common difference between them.

1. What are some general design guidelines for coding functions?

* ANS 1 ) Naming Conventions. ...
* 2 ) Indentation and Formatting. ...
* 3 ) Including Comments. ...
* 4 ) Modularity and Reusability. ...
* 5 ) Error Handling. ...
* 6 ) Code Readability. ...
* 7 ) Consistent Formatting. ...
* 8 ) Version Control and Code Review.

1. Name three or more ways that functions can communicate results to a caller.

ANS Functions can be invoked in two ways: Call by Value or Call by Reference. These two ways are generally differentiated by the type of values passed to them as parameters. The parameters passed to function are called actual parameters whereas the parameters received by function are called formal parameters.

FINISH\*\*\*