Assignment: Find and read 20 interview questions for Data Types, Operators, Conditional Statements, Looping Statements, Functions.

**Data types:**

1. **What are Data Types?**

Ans : A data type is a set of values and a set of operations defined on data. An implementation of a data type is an expression of data and operations in terms of a specific programming language such as Java, C ++, or Python.

1. **Name four of the main data types in Python?**

Ans : Numbers, strings, lists, dictionaries, tuples, files, and sets are generally considered the main types of data.

1. **What does immutable mean and what three types of Python core data types are considered immutable?**

Ans : An immutable data type is a type of object which cannot be modified after its creation. Numbers, strings, and tuples in Python fall into this category. Although you cannot modify an immutable object in place, you can always create a new one by running an expression.

1. **What does sequence mean and which three types of data fall into this category?**

Ans : A sequence data type is a collection of objects ordered by a specific position. In Python, Strings, lists, and tuples are the data types based on sequences. The Sequences share common sequence operations, such as indexing, concatenation, and slicing, but also have type-specific method calls.

**Operators:**

**1. What is slicing?**

Ans : Slicing is a technique that allows us to retrieve only a part of a list, tuple, or string. For this, we use the slicing operator [].

**2. What are assignment operators?**

Ans : =,+=,-+,\*=,/=,%=,\*\*+,//= are assignment operators in python, they are used to assign value to the variable

**3. What are the logical operators?**

Ans : We have 3 logical operators in python “And, OR, Not”

1. **What are membership operators?**

Ans : With the operators ‘in’ and ‘not in’, we can confirm if a value is a member in another.

**Conditionals:**

1. **What Does The Continue Do In Python?**

Ans : The continue is a jump statement in Python which moves the control to execute the next iteration in a loop leaving all the remaining instructions in the block unexecuted.

The continue statement is applicable for both the “while” and “for” loops.

1. **What is pass in Python?**

Ans : Pass means, no-operation Python statement, or in other words it is a place holder in compound statement, where there should be a blank left and nothing has to be written there.

1. **When Should You Use The “Break” In Python?**

Ans : Python provides a break statement to exit from a loop. Whenever the break hits in the code, the control of the program immediately exits from the body of the loop.

The break statement in a nested loop causes the control to exit from the inner iterative block.

1. **What Is The Difference Between Pass And Continue In Python?**

Ans : The continue statement makes the loop to resume from the next iteration.

On the contrary, the pass statement instructs to do nothing, and the remainder of the code executes as usual.

**Loops:**

**1. What function can generate a list of numbers?**

Ans : Range

**2. Name the 2 keywords used for looping?**

Ans : for , while

**3. What does the break keyword do?**

Ans : Exits the loop immediately

1. **What is the difference between a for loop and a while loop?**

Ans : A for loop is typically used when you know exactly how many times the loop needs to be repeated. A while loop is typically used when you don't know how many times the loop needs to be repeated.

A while loop repeats as long as its condition is true. For example, if a while loop says "while x == 5", then the line will execute as long as x equals five.

**Functions:**

**1. What keyword is used to define function in python?**

Ans : def

**2. What are the 4 types of functions in python?**

Ans: Python built-in functions, Python recursion function, Python lambda function, and Python user-defined functions

**3. How does a function return values?**

Ans : A function uses the ‘return’ keyword to return a value.

**4. What is the difference between a for loop and a while loop?**

Ans : For any kind of statements, we possibly need to define a block of code under them. However, Python does not support curly braces. This means we must end such statements with colons and then indent the blocks under those with the same amount.