Find and read 20 interview questions for Data Types.

DATA TYPES QUESTIONS:

1.Name four of the main data types in Python:

Integer (int)

Float (float)

String (str)

Boolean (bool)

2.Why are the data types known as Python’s core data types?

These data types are considered core because they form the building blocks of data manipulation and representation in Python. They are fundamental to storing, processing, and interacting with different kinds of data.

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

Immutable means that the value of the object cannot be changed after it is created. Three immutable core data types in Python are:

Integer (int)

Float (float)

String (str)

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

A sequence is an ordered collection of items where each item is assigned an index. Three types of data that fall into this category are:

String (str)

List (list)

Tuple (tuple)

5.What is the difference between a Set and Dictionary?

A set is an unordered collection of unique elements, while a dictionary is an unordered collection of key-value pairs.

Is Tuple comprehension possible or not? If yes, how, and if not why?

No, tuple comprehension is not possible in Python. This is because tuples are immutable, and list comprehension (which is similar) is used to create new lists.

6.How can we assign the same value to multiple variables in one single go?

You can assign the same value to multiple variables using multiple assignment:

a = b = c = 10

7.Explain the difference between int and float data types.

int: Represents whole numbers (e.g., -3, 0, 42).

float: Represents real numbers with a decimal point (e.g., -3.14, 0.5, 2.718).

8.How do you create a string in Python?

Strings are created using single (') or double (") quotes:

my\_string = "Hello, world!"

9.Can tuple be used as dictionary key in python?

Yes, tuples can be used as dictionary keys, as long as they only contain hashable elements (immutable types).

10.What are Boolean values used for in Python?

Boolean values (True or False) are used for logical operations and comparisons. They represent the truth values in conditional statements.

11.What are the common built-in data types in python?

The common built-in data types in Python include int, float, str, bool, list, tuple, set, dict, and more.

12.How will you get all the values from the dictionary?

You can get all the values from a dictionary using the values() method:

values = my\_dict.values()

13.How will you get all the values from the dictionary?

I believe this question might be a repetition of the previous one. You can use the values() method of a dictionary to get all the values.

14.Which method is used to access string?

You can access individual characters of a string using indexing. For example, my\_string[0] would give you the first character.

16.Is indexing and slicing possible or not in set?

No, indexing and slicing are not possible in sets because sets are unordered collections of unique elements, and they don't have a specific order.

17.How are the elements stored in dictionary data types?

Dictionary elements are stored as key-value pairs, where each key is associated with a corresponding value.

18.How will you convert a float value to an integer value?

You can convert a float value to an integer value using the int() function:

float\_num = 3.14

int\_num = int(float\_num) # Result: 3

19.What is Python’s type() function?

The type() function is used to determine the data type of a variable or an expression.

20.What is the maximum and minimum value for an int, float, and string data type?

For int: The maximum and minimum values depend on the platform (32-bit or 64-bit). In general, a 32-bit platform has a maximum value of 2^31 - 1 and a minimum value of -2^31, while a 64-bit platform has a maximum value of 2^63 - 1 and a minimum value of -2^63.

For float: The maximum and minimum values depend on the implementation. In Python, you can use float('inf') for positive infinity and -float('inf') for negative infinity.

For str: There is no predefined maximum or minimum length for strings in Python. The maximum length is limited by available memory.