CLASS 4 25-05-2021

**QUESTIONS**

👉 Difference between list and tuple?  
👉 What are an immutable and mutable objects in Python?  
👉 How to access items in a dictionary python?  
👉 What is set and why use?  
👉 What is frozenset?  
👉 Difference between append and extend?  
👉 Difference between indexing and Slicing?  
👉 How to find the largest and lowest value in the list?

**ANSWERS**

1. One of the most important **differences between list and tuple** is that list is mutable, whereas a tuple is immutable. This means that lists can be changed, and tuples cannot be changed. So, some operations can work on lists, but not on tuples. Because tuples are immutable, they cannot be copied.

2. To summarise the difference, **mutable objects** can change their state or contents and **immutable objects** can't change their state or content. **Immutable Objects**: These are of in-built types like int, float, bool, string, Unicode, tuple. In simple words, an **immutable object** can't be changed after it is created.

3. Using **dict.items().**

4. **Sets** are used to store multiple items in a single variable. Set is one of 4 built-in data types in Python. A set is a collection which is both unordered and unindexed. Sets do not store objects in the order they add them. Instead, they are stored in a way to make them fast to find, which means finding items in sets is extremely efficient.

5. **Frozen set** is just an immutable version of a Python set object. While elements of a set can be modified at any time, elements of the frozen set remain the same after creation. Due to this, frozen sets can be used as keys in Dictionary or as elements of another set.

6. **append**() adds a single element to the end of the list, while extend() can add multiple individual elements to the end of the list. append() takes a single element as argument while **extend**() takes an iterable as argument (list, tuple, dictionaries, sets, strings).

7. “**Indexing**” means referring to an element of an iterable by its position within the iterable. “**Slicing**” means getting a subset of elements from an iterable based on their indices.

8. Use predefined function **max**(list) and **min**(list)