Dictionary

- A dictionary in Python is an unordered collection of key-value pairs. It's a built-in mapping type in Python where keys map to values.
- The dictionary solves the problem of efficiently storing a large data set. Python has made the dictionary object highly optimized for retrieving data.

Creating a Dictionary

- Python syntax for creating dictionaries use **braces {}** where each item appears as a **pair of keys and values**.
- While values can be of any data type and can repeat, keys must be of immutable type (string, number or tuple with immutable elements) and must be unique.
- we can also create a dictionary using the built-in function dict().

Accessing elements from a dictionary

- While indexing is used with other container types to access values, dictionary uses keys. Key can be used either inside square brackets or with the get() method.
- The difference while using get() is that it returns None instead of KeyError, if the key is not found.

Changing/ Adding elements in a dictionary

- Dictionary are mutable. We can add new items or change the value of existing items using assignment operator.
- If the key is already present, value gets updated, else a new key: value pair is added to the dictionary.

Removing elements from dictionary

- We can remove a particular item in a dictionary by using the method pop(). This method removes as item with the provided key and returns the value.
  - name of the dictionary.pop(key)
- The method, popitem() can be used to remove and return an arbitrary item (key, value) form the dictionary.
  - name of the dictionary.popitem()

Removing elements from dictionary

- All the items can be removed at once using the clear() method.
  - Name of the dictionary.clear()
- We can also use the del keyword to remove individual items or the entire dictionary itself.
  - del name of the dictionary[key]
  - Del name of the dictionary