Python Programming

Besant Technologies

Datatypes:

- None
- Integer
- Float
- Complex numbers
- Boolean
- Strings

String methods:

- upper()
- lower()
- count()
- find()
- len()
- replace()
- concat(+)
- format() and fstrings

Some more datatypes..

- Lists
- Tuples
- Set
- Dictionary

Lists:

- Elements need not to be same datatype
- Index from '0' to len()
- Updation - adding new values, changing existing values, deleting existing values.
- Concatenation, Repetition, Iteration.
- Membership
- Indexing and Slicing

List Function:

- max() & min()
- len()
- count()
- list()
- append() & extend()
- insert() & index()
- pop(), remove() & clear()
- reverse() & sort()
- copy()

Tuple:

- Can have elements of any datatype
- Immutable - cannot change the value once assigned.
- Creating a tuple. (with one element)
- Indexing
- Slicing
- Modifying
- Deletion

- Concatention
- Repetition
- count()
- index()
- len()
- min() & max()
- Membership functions

Set:

- Every element is unique.
- Can have elements of different types
- Can change the elements.
- {} for creating set.
- Can only have immutable values.
- Empty set - set()
- No indexing because no order.

- Adding elements and updating - add(), update()
- Removing elements - discard(), remove(), clear()
- membership
- Set operations:
  - Union
  - Intersection
  - Difference
  - Symmetric difference

Set functions:

- isdisjoint()
- issubset()
- issuperset()
- len()
- max() & min()
- sorted()
- sum()

Frozenset:

- Values can't be changed.
- Create - frozenset().

Dictionary:

- Unordered.
- Key:value pairs.
- Optimized to retrieve values.
- Keys must be unique and immutable types.
- Accessing elements, changing
- Deleting elements - pop(), popitem(), del, clear()

Functions:

- len()
- Membership functions
- copy()
- clear()
- get()
- items()
- keys()
- values()
- update()