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- Data types

- classification or categorization of data items
- Represents the kind of value that tells what operations can be performed a particular data.
- Data types are acutally classes in python and variables are instance (object) of these classes.

- Numeric

- Represents data having numeric value.

- Integers [-10, 2, 9]

- Represented by int class
- Contains positive, Negative and whole numbers.
- In python, there is no limit on the length of an integer

- Float [1.5, 3.509]

- Represented by float class
- It is real number with floating point representation.
- Specified by decimal point
- It is accurate upto 15 decimal points

- Complex [4+9i]

- Represented by Complex class

- Specified as : (real part) + (imaginary part)
- for example : 2 + 3j

- Boolean

- Represented by class bool
- Has builtin two values : True
  False
- Boolean objects equal to true are truthy & objects equal to false are ~~fal~~ falsy.
- Also non-boolean objects can be evaluated in boolean context and determined to be true & false.

- Sets

- Unordered collection of data types.
- It is iterable, mutable.
- It has no duplicate elements.
- The order of elements in set is undefined.
- It may consist of various elements.
- A set can not have mutable elements like list or dictionary.

- Dictionary

- Unordered collection of data values
- Used to store data values like a map that

holds data in key-value point.
- Each key-value pair is separated by a colon (:)
- Each key is separated by a comma (,)
- Dictionary keys are case sensitive, same name but different case of key will be treated dist

- Sequence

- Ordered collection of similar or different data types
- Allow to organise multiple values in efficient fashion.

- Strings

- Bytes representing unicode characters
- Collection of one or more characters put in a single quote, double or triple quote.
- In python there is no character data type.
- character is a string of length one.
- It is represented by class str.

- List

- Similar to arrays i.e. the ordered collection of data.
- Item in list do not need to be of the same type.
- Therefore it is very flexible
- It is mutable

- Tuple

- similar to list
- Tuples are immutable
- Tuples cannot be modified after it is created.
- It is represented by tuple class.