Introduction to Pandas Data Structures:

Pandas deals with the following types of data structures:

- Series
- Data Frame
- Panel

Series:

Series is a one-dimensional labeled array capable of holding any data type (integers, strings, floating point numbers, Python objects, etc.).

It is generally homogeneous in nature and the size is immutable.

Ex:

A series object with integer data type:

1	2	3	4	5

Series object with float data type:

1.5	5.7	10.8

Series object with string data type:

Apple	Mango	Hyderabad	New York	Car

Data Frame:

DataFrame is a 2-dimensional labeled data structure with columns of potentially different types. You can think of it like a spreadsheet or SQL table, or a dict of Series objects. It is generally the most commonly used pandas object. Like Series, DataFrame accepts many different kinds of input:

- Dict of 1D ndarrays, lists, dicts, or Series
- 2-D numpy.ndarray
- Structured or record ndarray
- A Series
- Another DataFrame

A typical data frame will be similar to a table in SQL:

Ename	Gender	Salary	Age
Amar	M	15000.0	30
Akbar	M	12000.05	31
Anthony	M	14000.5	32

A data frame is a 2D object of heterogeneous data with both the size and data mutable.

Panel :

Panel is a somewhat less-used, but still important container for 3-dimensional data.

Its heterogeneous in nature with size and data mutable.