**Data analysis**: is a process of inspecting ,cleaning,transforming,and modelling data with the goal of discovering useful,information,informing conclusions,and supporting decision making

**Pandas as python**

* **What is pandas:** the name pandas has a reference to both panel data and python data analysis and was created by wes mckinney in 2008
* Pandas is python library used for working with data sets
* It has funation for anylzing,cleaning,exploring,and manipulating,data
* Read and write structures and different formats csv,json,zip,excel

**Three types of data structure:**

* **Series**:one demensional labeled arrays pd.series(data)
* **Data frames**:two dimensional data structure with columns much like table
* **Pane**l:a panel is a 3d container of data

**IMPORTANCE OF PANDAS IN PYTHON:**

* pandas allow us to analyze big data and make conclusions based on statistical theories
* Pandas can clean messy data and make them readable and relevant
* Easily handling of missing data (represented as Nan) in floating point as well as non floating point data
* Size mutuabality: columns can be inserted and deleted from data frame and higher dimensional objects
* Data sets merging and joining.flexible reshaping and pivioting of data sets prove time series functionality