

Why Pandas?

- 1 Data Manipulation
- 2 Data Analysis

1 Data Manipulation

Manipulation of data is the process of manipulating or changing information to make it more organized and readable.

```
## pandas
```

2 Data Manipulation

- Purpose:
 - Consistent Data
 - Project related data
 - Create more value for data
 - Remove or Ignore Data

RAW Data -->

- step1. Data collection/loading.
- step2. Data clean.
- step3. Data filtration.
- step4. Data remove up/ignore.
- step5. Data joining/raking/tidy up.
- step6. Data joining/merging.
- step7. Data splitting.
- step8. Missing value found.
- step9. Duplicate value remover.
- step10. Image analysis.

```
--> Clean Data(become readable),  
    Data Analysis,  
    Make some graphs,
```

Then repoting,
And presentation.

2 Data Analysis

- Virtual part of a business
- Learn and adapt(Nokia , Samsung , Apple)
- Data driven decision making(CODANICS Youtube)
- Data driven policy making(Methan Emission, polutino etc..)
- How many likes and responses?
- Should I continue this course?
- how international we are?
- How good is our modle?
- Should we ban diesel car? or improve more gas car?
- Persent of people
- Engineering work performances

Types of Data Analysis

- 1.Descriptive analytics: What happened?
- 2.Diagnostic analytics: Why did it happen?
- 3.Predictive analytics: What is likely to happen in the future?
- 4.Prescriptive analytics: What is the best course of action to take?

Pandas - vs - Ms Excel

- Data Frame ----Worksheet
- Series-----Colums
- Index-----Row Heading
- Row-----Row
- NaN-----Empty Cell

-> Python Library
-> Data Analysis & Data Manipulation
-> Data Analysis
-> Data Science
-> Machine Learning(ML)
-> If your work involves Data you must use it
-> Once you know you will use it(its free)
-> Load,read ,prepare,model and analyze data
-> Join,merge,filter,reshape

- > Data from different databases and join in one
- > Anything with data
- > DataFrames=Pandas Data structure
- > Kashti data=downloaded and saved it excel