

Python for Data Analytics

Learn everything about analytics

Pandas

Topics to be covered

1. Introduction to Pandas
2. Why to use Pandas?
3. Reading a spreadsheet (CSV and Excel)
4. What is DataFrame and its operations?
5. Indexing/ Selection in DataFrame
6. Column selection, addition and deletion
7. Subsetting in DataFrame
8. Exporting DataFrame to spreadsheet (CSV and Excel)

Pandas: Reading a spreadsheet and basic operations

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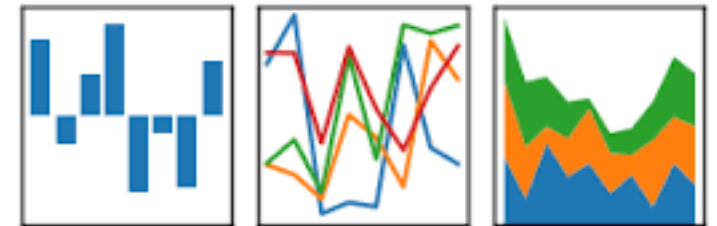
Introduction to Pandas

Pandas is powerful python data analysis toolkit for **reading, filtering, manipulating, visualizing** and **exporting** data



pandas

$$y_{it} = \beta' x_{it} + \mu_i + \epsilon_{it}$$



Why to use Pandas?

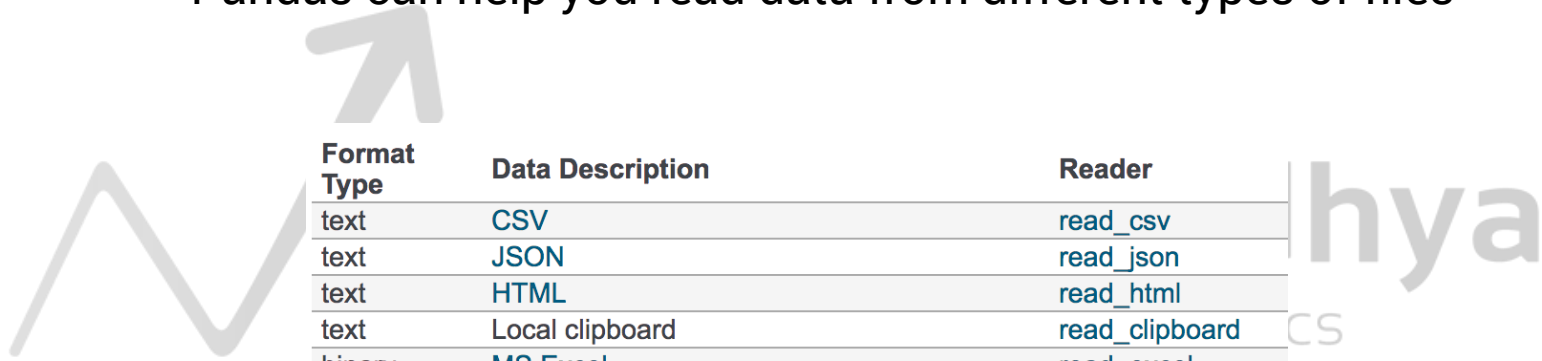
Wide range of functionalities such as

1. Reading different varieties of data.
2. Functions for filtering, selecting and manipulating data
3. Plotting data for visualization and exploration purpose.

Huge contribution and support from the community

Reading a spreadsheet (CSV and Excel) file

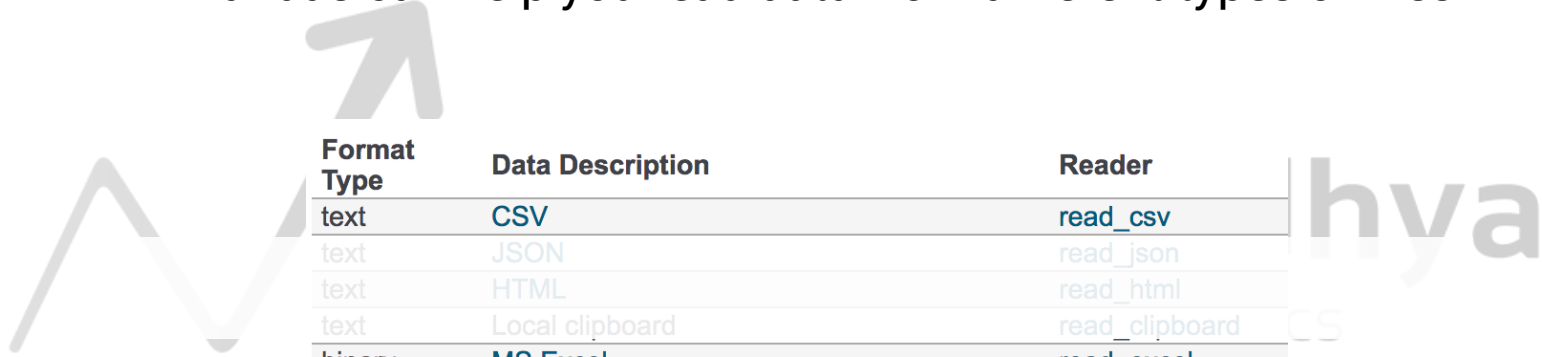
Pandas can help you read data from different types of files



Format Type	Data Description	Reader
text	CSV	read_csv
text	JSON	read_json
text	HTML	read_html
text	Local clipboard	read_clipboard
binary	MS Excel	read_excel
binary	HDF5 Format	read_hdf
binary	Feather Format	read_feather
binary	Msgpack	read_msgpack
binary	Stata	read_stata
binary	SAS	read_sas
binary	Python Pickle Format	read_pickle
SQL	SQL	read_sql
SQL	Google Big Query	read_gbq

Reading a spreadsheet (CSV and Excel) file

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binary	Stata	read_stata
binary	SAS	read_sas
binary	Python Pickle Format	read_pickle
SQL	SQL	read_sql
SQL	Google Big Query	read_gbq