



Python for Data Analytics

Pandas: Reading a spreadsheet and basic operations

Topics covered

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

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What is DataFrame and its operations

A DataFrame is similar to Excel workbook tabular datasheet



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Excel

	A	B	C	D	E
1	PassengerId	Survived	Pclass	Name	Sex
2	1	0	3	Braund, M	male
3	2	1	1	Cumings, female	
4	3	1	3	Heikkinen	female
5	4	1	1	Futrelle, M	female
6	5	0	3	Allen, Mr.	male

DataFrame

	PassengerId	Survived	Pclass	Name	Sex
0	1	0	3	Braund, Mr. Owen Harris	male
1	2	1	1	Cumings, Mrs. John Bradley (Florence Briggs Th...	female
2	3	1	3	Heikkinen, Miss. Laina	female
3	4	1	1	Futrelle, Mrs. Jacques Heath (Lily May Peel)	female
4	5	0	3	Allen, Mr. William Henry	male

What is DataFrame and its operations

Basic operations with DataFrame



Operation	Command to perform
Dimension of the DataFrame "rows X columns"	DataFrame.shape()
Access Top/ Bottom <n> records	DataFrame.head(n)/ DataFrame.tail(n)
Access all column names	DataFrame.columns
Access data of one column	DataFrame["columnname"]
Access data of multiple columns	DataFrame[["column1","column2",...]]