

Python programming and data visualization for beginners

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Week 5

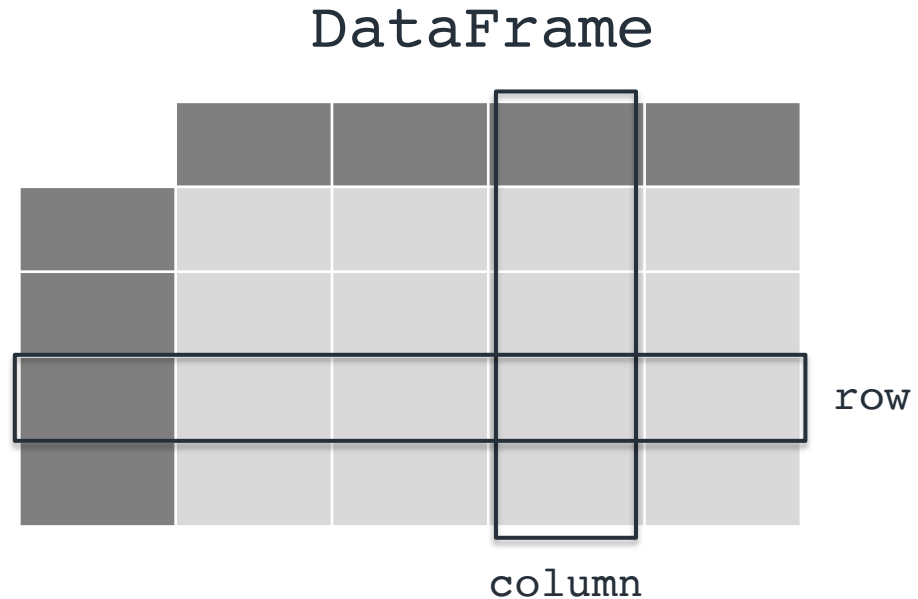
pandas

- Core features
 - DataFrame
 - Series
 - Index
- Loading and saving data
- Indexing and selecting subsets
- Summarising and reshaping data
- Plotting

pandas

Core features - DataFrame

- 2-Dimensional data structure with rows and columns
- Similar to:
 - Excel spreadsheet
 - SQL table
 - data.frame in R

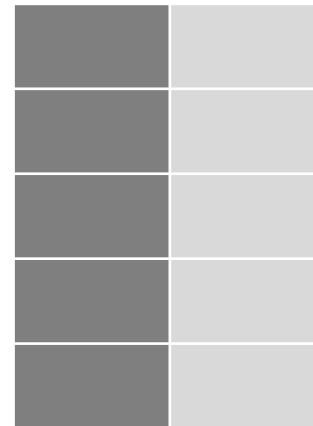


pandas

Core features - Series

- A 1-dimensional array
 - With explicit axis labels
 - Which can contain any type of data
- Every column in a DataFrame is a Series
- Working with a Series is like referencing a single column in a spreadsheet
- Acts very similar to a `numpy ndarray`

Series



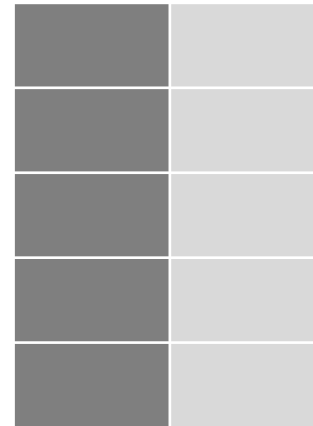
values

pandas

Core features - Index

- Explicit axis labels of a Series
- Default is RangeIndex

Series





Index

pandas

Loading and saving data

- Support for many file types

