

Module-03, Python for Data Analysis

Data Exploration (Pandas-Part-02)

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GroupBy

The groupby method allows you to group rows of data together and call aggregate functions. Group DataFrame using a mapper or by a Series of columns.

A groupby operation involves some combination of splitting the object, applying a function, and combining the results. This can be used to group large amounts of data and compute operations on these groups.

Example

For instance let's group based off of Company. This will create a DataFrameGroupBy object, then call aggregate methods off the object in coding



Merging, Joining and Concatenating

pandas provides various facilities for easily combining together Series or DataFrame with various kinds of set logic for the indexes and relational algebra functionality in the case of join / merge-type operations. In addition, pandas also provides utilities to compare two Series or DataFrame and summarize their differences.

- Concatenating objects
 - Named Series merging
 - joining by relation



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Operations

There are lots of operations with pandas that will be really useful to you, but don't fall into any distinct category. Let's show them here in this lecture.

- Info on Unique Values

- Selecting Data
- Applying Functions
- Permanently Removing a Column
- Get column and index names
- Sorting and Ordering a DataFrame
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Data Input and Output

This Lecture is the reference code for getting input and output, pandas can read a variety of file types using its `pd.read` methods. Let's take a look at the most common data types:

- CSV, Input and output
- Excel , Input and output
- HTML, input and output



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Great Job
Thank yo

