Goskills

Pandas for Data Analysts: Leveraging Python with Confidence

GoSkills online course syllabus

Skill level
Beginner

Lessons
17

Pre-requisites
No prior experience needed

Video duration
57m

Estimated study time
57m 42s

Instructor
George Mount

Introduction

1 Python and Excel for analytics

When you think of leveraging Python for data analysis, you may feel a little overwhelmed or even intimidated by the idea of applying a programming language to your day-to-day tasks.

First Steps with Pandas

2 Why Pandas for analytics?

Python wasn't designed specifically for data analysis, but the Pandas package for Python was.

3 Using Pandas DataFrames

Unlike in Excel, data typically isn't stored directly in Pandas.

Summarizing and Visualizing Data in Pandas

4 Printing and exploring DataFrames

Chances are your data is too big to be analyzed simply by scrolling through it.

5 Pandas plotting basics

Pandas is built for data analysis...

Working with Rows and Columns

6 Adding calculated columns

It's a rare occasion that a dataset comes to you with all the columns just the way you want them!

7 Renaming and dropping columns

Once you delete a column in classic Excel, it can be hard to get that data back.

8 Sorting rows

You can sort in Excel with a point-and-click menu, but in Python you have to code it yourself.

9 Filtering rows

Filtering rows is another Excel task that doesn't require coding but does in Python.

Cleaning Data

10 Aggregating a DataFrame

PivotTables in Excel work in a two-part process: you group by a category, then summarize by a quantity.

11 Merging two DataFrames

If VLOOKUP() is the duct tape that binds data sources together in Excel, Pandas relational merges are like a full-on welder.

12 Working with missing values

Excel does not feature a dedicated value for missing observations, which can be confusing and even detrimental to your data analysis.

13 Reshaping a DataFrame

Whether for personal preference or to meet the requirements of an analysis, sometimes you need to transpose a dataset entirely.

Working with Dates and Times

14 Aggregating by time period

Pandas got its name because it was designed to work with panel data, a type of time series source.

15 Creating window functions

Working with time series data often involves calculating so-called window functions such as rolling averages and lagged variables.

Practice Your Skills

16 Practicing with real data

Data analytics has found perhaps its widest appeal with the general public in sports, particularly baseball.

Conclusion

17 Continuing your Python journey

Congratulations on "taming" Pandas for data analytics!

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