Unit Lab: Pandas!

Lesson Objectives

- Apply what you've learned in the Pandas unit to create a working Python program.
- Wrap up the Pandas unit.
- Q&A and transition.

Talking Points: - Congratulate them on finishing unit 6!

You Do: Unit Lab - Pandas

You already have an app that prompts a user for a movie and then, looking up that movie in the OMDB API, either prints search results or finds the Rotten Tomatoes rating.

In today's lab, you will add data analysis to that - what other information can you get? What conclusions can you make?

Open the Jupyter Notebook {`Pandas-Unit-Lab.ipynb`} see the lab and its instructions. Follow the instructions there.

- *If your solution to the last lab didn't quite work, there's working code provided in the {* `starter-code` *} folder. Copy that to your local folder and work from there.*

Try your best! Raise your hand if you really need help.

75 MINUTES **Teaching Tips**: - Make sure you change the link or point out what PDF to look at, and check the starter code location. - Make sure all students start with working code - they can get it from the starter code file. - The lab has instructions and an explanation in it for them to read. Make sure they're all opening the lab instructions okay. - Stay on this slide until everyone's done or time's up! **Talking Points**: - Remember, throughout the course, there is a lab at the end of each unit. Each lab builds upon the last. - Does anyone need help with the starter code? - Right now, let's set up the functions and control flow to print out the values of our variables.

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Debrief: Unit Lab - Pandas

How did it go?

Let's go over it.

Make sure you understand and your code works.

Talking Points: - Bring up the solution (in the `solution-code` directory) and walk them through it. Be sure everyone understands - and be sure everyone's code is accurate or knows that it isn't. - The next lab builds off of this one, but provides starter code if needed.

Unit Wrap Up

What can you do?

- Apply the data science workflow.
- Use Pandas to:
  - Read in a dataset.
  - Investigate a dataset's integrity.
  - Filter, sort, and manipulate DataFrame series.
- Identify when you would use a bar chart, pie chart, scatter plot, and histogram.
  - Implement different types of graphs on a given dataset.
- Identify and handle missing values with Pandas.
- Implement `groupby` statements for specific segmented analysis.
- Use `apply` functions to clean data with Pandas.

Questions?

5 MINUTES **Teaching Tips**: - Briefly review the high-level learning objectives for Unit 3. - As you read each bullet aloud, ask students to give you a "fist to five". See **Talking Points** below. - Observe student votes for each item, and make a mental note to follow up with individuals who are not feeling confident, or find time to reteach topics that the majority of the class is uncomfortable with. - Take time to go over questions (but remember the parking lot). **Talking Points**: - Wow, we've covered a lot, and we're just getting started! Let's take a minute to review what we've learned so far. - I'm going to read through the learning objectives for Unit 1. As I do so, I want you to tell me how confident you feel that you've mastered each one, on a scale of 0 to 5. -- Hold up your fist to indicate 0 - you don't feel confident at all that you mastered this objective. -- Hold up all five fingers to indicate 5 - you feel super confident. You're an expert!