

Project Description

You are tasked to build a command-line tool that can parse CSV files and perform some basic operations on the data.

Your tool should support the following commands:

- `load <file>`: Load a CSV file into memory.
- `count`: Count the number of rows in the currently loaded CSV file.
- `mean <column>`: Calculate the mean of a numeric column in the currently loaded CSV file.
- `filter <column> <value>`: Filter the currently loaded CSV file to include only rows where the specified column matches the specified value.
- `exit`: Exit the program.

The CSV files that your tool should support will have a header row as the first row, which contains the names of the columns. Each subsequent row will contain the data for each column.

Requirements

- The tool should be built using Python.
- Use the `argparse` module to handle command-line arguments.
- Use the `csv` module to read and write CSV files.
- Write unit tests for your tool.
- Create a README file that explains how to run the tool.

Bonus Points

- Add support for more commands, such as sorting the data or calculating the standard deviation of a numeric column.
- Use a third-party library such as `pandas` to perform more complex operations on the data.
- Add support for multiple CSV files.

Submission

Please submit your code as a GitHub repository. Your submission should include the source code, tests, and README file.

Feel free to adjust the assignment to better suit the needs of your organization and the skills of the intern. Good luck!