ASTR 596

Fall 2024

Stellar Spectral Analysis (50 points)

This assignment is due by September 23rd at noon. It will be handed in on Canvas but will also involve using Github and Jupyter Notebooks. We will start this assignment in the 2076 computer lab. The assignment name in Canvas is "*Stellar Spectral Analysis*" and is in Module 1.

All commands that you need to type will be given in red. Anything written like this **<text>** implies that you need to write something unique to the situation in place of the <> statement.

I will be putting all file and directory names in blue to make it hopefully easier to see them

Read each step carefully in its entirely before attempting that step.

1. Open the Terminal app
2. type micromamba activate stenv
3. type micromamba install --channel conda-forge astroplan astroquery speclite --yes
    - This may have worked for you last time, but it didn't for many people and it should work now.
4. In the terminal change into the ~/ASTR596/Rudnick_repositories/ASTR596_F24 directory with
5. In the terminal type git pull
    - This will pull all recently updated material onto your local version of the repository, including a directory with the new assignment, called *Stellar-spectral-analysis*.
6. On your GitHub account, make your own GitHub repository for this assignment. See the last assignment for details if you forget. Call it *Stellar-spectral-analysis*
    - Make sure to put in a README file and include your name in the README file so that I know to whom the repository belongs should your username not be obvious.
7. Push the green "Code" button on your own repository page and copy the URL you see.
8. At the terminal change into the ~/ASTR596/My_respositories directory and execute the following to make a copy of your new repository
    - git clone <your new repository address> (just copied from the github web page)
9. Copy the two *.txt files and astr596-stellar-spectra-analysis-student.ipynb from my *~/ASTR596/Rudnick_repositories/ASTR596_F24/Stellar- spectral-analysis/* to your new local repository at ~/ASTR596/My_repositories/Stellar-spectral-analysis
10. cd ~/ASTR596/My_repositories/Stellar-spectral-analysis
11. jupyter lab astr596-stellar-spectra-analysis-student.ipynb
12. Complete the exercise in the notebook. As you work your notebook should be automatically saved in the same location where it was originally stored. You can manually save by pushing the disk key in the upper left of the Jupyter window. Any time you finish a block of work, upload your activity back to the GitHub repository using the web interface and adding a comment about what you have changed. You do this by clicking on the "*Add*

File" followed by the "*Upload file"* option. Make sure to enter a comment before you upload your file.

13. When you are done with the assignment, make sure to upload it one last time. I will grade the most recent version that is on GitHub.
14. Make sure to add me as a collaborator to your GitHub repository. Use **grudnick@ku.edu** as the address when adding me.
15. Submit the GitHub repository URL to the Canvas assignment.