

**Here are a list of helpful guidelines that TAs have created for completing assignments, producing clean notebooks, and getting perfect assignment scores:**

1. Follow TAs' hints for each assignment in his submission directions
2. Ensure that [markdown cells](#) are not run as code cells in Jupyter
3. Use [markdown](#) to make your notebooks legible
4. Use hashtags for each code cell to remind yourself of what your code is doing
  - a. Assume that the grader does not know what you are doing
  - b. This practice is also helpful if you need to go back to a notebook in future weeks
5. Provide descriptions for each section of your code. Assume the grader doesn't know what you are doing or what data you are using
6. [Print subsamples](#) of your code to reduce iPython notebook file size
  - a. Use `.sample` or `.head()` functions
  - b. Your code will not run if it has errors, so there is not need to print out all rows of your data
7. [Rename data columns](#) so that they make sense in plots and maps
8. Clean up coding error cells and run all cells before pushing to GitHub
  - a. Use [NbViewer](#) to copy and paste GitHub URLs to `.ipnyb` to display interactive maps and plots as hyperlink at the end of your notebook
9. Produce plot visualizations that make sense (e.g., don't display a bar chart with 1,000+ census tracts; try to group them together)
  - a. Color points and polygons so that they contrast with 'contextily' basemaps
    - i. [Adobe Color](#)
    - ii. [ColorBrewer](#)
10. Refer to each python libraries documentation or Google your error code to find solutions on stackoverflow for coding assistance
  - a. [pandas 1.5.3 documentation](#)
  - b. [GeoPandas 0.12.2 documentation](#)
  - c. [Matplotlib 3.6.3 documentation](#)
  - d. [Folium 0.14.0 documentation](#)
  - e. [Plotly Python Graphing Library](#)
  - f. [Contextily](#)
  - g. [OSMnx](#)
  - h. For other libraries, Google '[library name] documentation'