

ECON 282, Professor Hogendorn

Assignment 2

For this and all assignments, save the commands and output in a text editor or word processor so that you can print them out in the end. Usually the simplest way to do this is just copy and paste from the console in RStudio. By all means edit the file to look better (monospaced font, headings, etc.) and to shorten unnecessary output (e.g. if R gives you 6 rows of data, delete 3 of them to save space; delete error messages; etc.).

The goal of this assignment is to use the data file on the syllabus, "282.assign2_data.RData" to make a table that looks like the following:

Country	Population	Land Area	Population Density
Mexico	?	?	?
USA	?	?	?

1. Open RStudio, load the data, and look at it. Notice that there are two separate data tables, one of which contains data on population and the other contains data on land area in square miles.
2. Create a new R Script file to save all your commands. You can do this under the File menu in RStudio or by clicking the little green plus button in the top left corner of RStudio's window. Save your R Script somewhere convenient.
3. Run `tbl_df()` on the tables to make things look nice. Check the `head()` and `str()` of both data frames. First type the commands in your R Script file. Then run them in the console either by copying and pasting to the console or (much simpler) just clicking on the little Run button while your cursor is on the line you want to run.

If you realize that you made a mistake, you can just edit your R Script file and run again.

4. Join the two tables by country and state so that you have one data frame with the data on both population and area. You can rest assured that the names of the countries and the names of the states are spelled exactly the same in both tables.
5. Summarize the data by country. Make a new variable that gives population density (pop/area). Show the result, just like in the example table. Some countries are way up north, eh. Don't let them keep your table from looking exactly like the example.
6. Once you've got it all running nicely, save your R Script file, clear everything, and run it one last time. That should give you a nice clean set of commands and output in the console. Copy and paste to a text editor or word processor, clean it up, give it headings, and print it.