In this design challenge, you will perform web scraping on the web pages provided:

Canada,https://en.wikipedia.org/wiki/Canada
China,https://en.wikipedia.org/wiki/China
US,https://en.wikipedia.org/wiki/United_States
Korea,https://en.wikipedia.org/wiki/Korea
UK,https://en.wikipedia.org/wiki/United_Kingdom
France,https://en.wikipedia.org/wiki/France x
Turkey,https://en.wikipedia.org/wiki/Turkey x
Italy,https://en.wikipedia.org/wiki/Italy x

Step-by-step guide for the design challenge:

Step 1: Web Scraping

Use Python to scrape the HTML files from the web pages mentioned above. Make sure to scrape all 8 pages!

Step 2: Parsing and Data Storage

After scraping the web pages, parse the HTML files and organize the extracted information into a table format, which you can store in a CSV or Excel file. The table should contain eight rows representing different countries and six columns for each country's details, including country name, capital, native languages, area, population, and GDP. You can also extract additional data from the HTML files if needed!

Step 3: Computing Country Statistics

Write code to determine the country with the highest population, area, and GDP among the data collected in Step 2.

Step 4: Correlation Analysis

Write code to compute the Pearson correlation coefficient for pairs of variables, such as (area, population), (area, GDP), and (population, GDP), as defined in the documentation at "https://en.wikipedia.org/wiki/Pearson_correlation_coefficient."

Once again, you may scrape information from additional Wikipedia pages if you find it necessary, and you are also welcome to extract more data columns from the HTML files as part of your analysis.

Good luck!