Hi everyone,

Below is the homework description.

**Objective:**

Craft stacked bar charts to represent the World University Rankings using D3.

Data Source: <https://www.kaggle.com/datasets/ddosad/timesworlduniversityrankings2024>

**Requirements:**

Direction of Stack: You can choose either a vertical or horizontal stacking style.

Data Representation: Every stacked bar should represent the total score of a particular university. Within each bar, the scores for different criteria -- namely teaching, research, citations, industry income, and international -- should be clearly distinguishable.

Sorting Capability: Your visualization should enable sorting of universities:

* By overall scores.
* By each individual criterion (teaching, research, citations, industry income, and international).
* Both in ascending and descending orders.

Design Enhancements:

* Color Variations: Use distinct colors to represent each criterion within the stacked bars.
* Interactive Features: Implement interactive elements such as tooltips that display exact scores when hovered over a specific section of the bar, or clickable legends to hide/show specific criteria.
* Additional Techniques: Feel free to introduce any other design methodologies that can amplify the clarity and aesthetic of the data representation.

**Submission:**

Ensure your code is well-commented and organized. Include any necessary documentation or user guides that can assist in understanding and navigating your visualization.

**Support:**

If you have any questions or face challenges during the assignment, don't hesitate to contact us for clarification or guidance.

Note 1: When saving your work, use the format "your\_student\_ID.html" or "your\_student\_ID.js". Instructions for uploading your work to our designated server will be provided shortly. Remember, you must also submit your assignment on the E3 platform.

Note 2: You can ignore the attributes irrelevant to this assignment.

Good luck, and we look forward to seeing your creative and efficient data visualizations!

YuShuen

**Clarification**

**Objective:**

Create stacked bar charts to represent data from the World University Rankings using D3.js.

**Data Source:**

The data comes from a Kaggle dataset on World University Rankings 2024.

**Requirements:**

Direction of Stack:

You have the option to stack the bars vertically or horizontally. Choose whichever suits your design best.

Data Representation:

Each stacked bar should show the total score of a university.

The bar is divided into segments representing teaching, research, citations, industry income, and international.

Sorting:

Allow the chart to be sorted by:

* + Overall score.
  + Individual criteria (e.g., teaching, research, citations, etc.).
  + Both ascending and descending order.

Design Enhancements:

Use distinct colors to differentiate the scores for each criterion within the bar.

Add interactive features:

Tooltips that show the exact score when you hover over a section.

Clickable legends to hide or show specific criteria.

**Additional Techniques:**

You are encouraged to add any other techniques to improve the clarity or aesthetics, such as animations or highlighting.

**Submission:**

Your code should be well-commented and organized.

Include documentation or a user guide to help understand and navigate the visualization.

Save the work as "your\_student\_ID.html" or "your\_student\_ID.js".

**Support:**

If you face issues, contact your instructor for help.

**Extra Note:**

Only focus on attributes relevant to this assignment.