

# CS306 Database Systems

## 2022-2023 Spring Semester Group Project

### Step 4

In the 4th step of the project, you need to explain the results obtained from the data using the data visualization methods based on the analyses you have conducted so far. You need to report your data story, which provides insight into your topic. To accomplish this, you need to use data visualization techniques with the insights you discovered in the previous steps.

Data visualization is the practice of displaying data and information in a visual format, such as charts, graphs, maps, and info graphics. The main objective of data visualization is to help people understand complex data and identify patterns or trends that might be difficult to discern from raw data. You can take the indicators from [ourworldindata.org](https://ourworldindata.org) as an example. You can also refer to the basic data visualization methods in the below link, but you are not limited to them.

[10DataVisWays.pdf \(sabanciuniv.edu\)](#)

1. You are required to do this using Python and a library of your choice (Pandas, Seaborn, etc.). You can use the views and queries you have created in the previous step of the project by connecting to your database using the MySQL connector as seen in the recitation.
2. Throughout the project, you have progressed with a data topics for each person in your team. At this stage, you are required to prepare at least one visual for each topic. The number of visuals should be equal to the number of group members you have and these topics and visuals should be different from each other. For example, if you used a line graph in one analysis, you should use a bar chart for another.
3. In the PDF report, you should explain your data story using 3-4 sentences. You should describe what you compared with your visual, what type of aggregation you made, and what it shows. You should also identify any interesting patterns or correlations.

Import your python code and result files into your GitHub repository. Please ensure that you upload your work before the deadline and that it is not accidentally deleted. Ensure that you include a link to your repository in your PDF report.

If you have any questions or need further clarification, please do not hesitate to reach out to me or TA Semih Yılmaz at [yilmazsemih@sabanciuniv.edu](mailto:yilmazsemih@sabanciuniv.edu).

Please note that only one group member is required to make the submission. Please clearly state your group name, the names, and IDs of all participating group members in your PDF report. However, if any of your group members do not participate in the workshops or work harmoniously, you may not include their names in the submission for that project step, based on a consensus decision.

Late submissions will not be accepted, so please be careful with your work and the deadline.

Good luck!