

CECS 0927 - Assignment 01

Objective of the Assignment:

- ☐ Data interpretation through graphical models.
- ☐ Translating graphs to consumer insights.
- ☐ Generating graphs from datasets.
- ☐ Understanding and reading dashboards.
- ☐ Developing recommendations

Question 1:

Instructions: Use the graph link given below to access the graph related to Marvel Cinematic Universe. The graph shows information such as Budget (\$), Box Office (\$), Rotten Tomatoes Audience (%) and Rotten Tomatoes Critics (%).

Graph: [Marvel Cinematic Universe](#)

The graph shows the data for 23 Marvel Cinematic Movies and the order or the metric can be changed from the two boxes stating “**Select Measure**” & “**Select Order**” on the top left of the graph.

Cinematic Universe are collectively known as "The Infinity Saga". Together they rep	
Select Measure	Select Order
Box Office (\$) ▼	Release Order ▼

Answer the question below using the graph given in the above link:

- Which movies crossed the box office budget of \$200M & had a Rotten Tomatoes Audience Score of 90% or more? Paste the Screenshot of the graph with your answer.

Question 2:

Instructions: Use the graph link given below to access the graph related to Literacy Rate, Youth / Income Per Person. The graph shows information such as literacy rate, youth per country and per capita income of that country. If you want any specific country in the graph, you can hover over that country or select that country from the filters given on the right of the graph.

To answer this question, below are the default metric set in the link:

X-Axis: Per Capita Income of that country

Y-Axis: Literacy Rate, Youth

Color of the circles: Country Flag

Size of the circles: Population of the Country

Data Year: 2010

Graph: [Literacy Rate, Youth / Income Per Person](#)

The “Play” button on the bottom of the graph shows the progress of the data from 1975 through 2010. You can change the axis metric by clicking on them.



Answer the question below using the graph given in the above link:

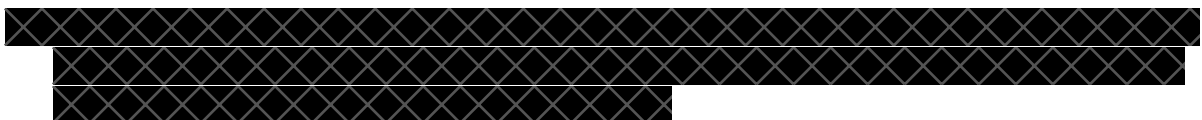
- Which country has the best Income to Literacy rate ratio?
- Which country has the worst income to Literacy rate ratio?
- Answer briefly: what insight can you draft from the graph?

Question 3:

Instructions: The data is presented to you in the form of a .csv file. If you’re using excel, use the data to generate graphs in excel itself. If you’re using R or any other tool, you can directly upload the data file into that tool.

The data file consists of huge data sets. You’re only required to generate a graph of the data of the last 50 years of Year-on-Year (YOY) CPI Inflation average. Use the formula given in the hint to generate the average of each year.

Data File: CPI Inflation.csv



OR

- For R: Generate a graph using **ggplot2** library to demonstrate the average CPI inflation rise in the past 50 (1971 - 2021) years in the USA & draft insights from the graph (Line graph preferred). Paste the Screenshot of the graph you created.

(Hint: Use **dplyr** library to trim dataset and generate a subset of 50 Years.)

Question 4:

Instructions: The dashboard presented to you below is just a screenshot of a sample dashboard from the Syncfusion Company. This will help you understand how dashboards look in real life and how impactful visualizations are to solving real world problems.



You are the business analyst of Syncfusion company and you are chosen to use your knowledge and understanding to develop recommendations looking at the dashboard. This is a subjective question and we request you to answer this in 50-100 words.

Using the Screenshot of the dashboard given above as a reference, answer the following:

- Explain briefly different elements of the dashboard?
- You are asked by your manager to develop 2 recommendations which would be useful for him in his overview report using the screenshot of the dashboard
- What one element would you like to add in the dashboard that would help you understand the overview better?