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**Team name:** Viz Visionaries

**Student name & ID:**

1. Luwi Kah Wen 103828807
2. So Wai Ting
3. Liew E-Ling

**Tutorial day and time:**

**Year and Semester:** July 2023, Semester 7

**Word count:**

<https://cos30045-group8.netlify.app/>

**Project Process Book**

MIGRATION OF INDIA DATA VISUALISATION

**Title Page**

Includes:

• descriptive title (e.g., ‘Data Visualisation Project’ is not acceptable)

• link to Mercury hosted website (must be on title page)

• team name and student names and IDs

• tutorial day and time

• year and semester

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**Table of Contents**

[**1.** **Introduction** 4](#_Toc149517240)

[**1.1** **Background and Motivation** 4](#_Toc149517241)

[**1.2** **Visualisation Purpose** 4](#_Toc149517242)

[**1.3** **Project Schedule** 4](#_Toc149517243)

[**2.** **Data** 4](#_Toc149517244)

[**2.1** **Data Source** 4](#_Toc149517245)

[**2.2** **Data Processing** 5](#_Toc149517246)

[**3.** **Requirements** 6](#_Toc149517247)

[**3.1** **Must-Have Features** 6](#_Toc149517248)

[**3.2** **Optional Features** 6](#_Toc149517249)

[**4.** **Visualisation Design** 6](#_Toc149517250)

[**5.** **Validation [optional - Bonus Points]** 11](#_Toc149517251)

[**6.** **Conclusion** 11](#_Toc149517252)

[**7.** **References** 12](#_Toc149517253)

# **Introduction**

## **Background and Motivation**

Who will use, or be interested in, this visualisation (i.e., users)? What kind of tasks will they want to do? Why is it important?

## **Visualisation Purpose**

What questions will the user be able to answer with your visualisation? List the possible benefits of the completed visualisation.

## **Project Schedule**

Make sure that you plan your work so that you can avoid a big rush right before the final project deadline. Write this in terms of weekly deadlines.

# **Data**

## **Data Source**

From where and how are you collecting your data? Provide a link to your data sources. What type of data set is it (e.g., table, network, field)? What are the attributes in your data set and what type of data are the values (i.e., categorial, ordinal, interval, ratio/quantitative)? Is there any data in the set that will not be included in your visualisation? Why?

NOTE: Make sure that the data can be used to answer the questions outlined in Section 1.2.

**Unemployment Rate:**

<https://www.studyiq.com/articles/unemployment-rate-in-india/>

**Reason of migration:**

<https://pib.gov.in/PressReleasePage.aspx?PRID=1833854>

**Wages:**

<https://www.nber.org/research/data/occupational-wages-around-world-oww-database>

**Healthy dataset:**

<https://www.researchgate.net/publication/319659904_Determinants_of_internal_migrant_health_and_the_healthy_migrant_effect_in_South_India_A_mixed_methods_study>

**Migration from India to other countries**

<https://www.migrationpolicy.org/article/indian-immigrants-united-states>

**Population:**

<https://population.un.org/wpp/Download/Standard/Population/>

## **Data Processing**

Do you expect to do substantial data cleanup? What quantities do you plan to derive from your data? How will data processing be implemented? Will you be deriving any variables?

Describe clean up process that was implemented. Explanation and calculation of derived variables (if used).

# **Requirements**

## **Must-Have Features**

These are features without which you would consider your project to be a failure. Were you able to deliver all the promised features? If not, explain why.

## **Optional Features**

Those features which you consider would be nice to have, but not critical. Were you able to deliver any of these extra features?

# **Visualisation Design**

How will you display your data? Provide some general ideas that you have for the visualisation design. Include sketches of your design. Include at lease 2-3 alternative ideas for your visualisation. Describe and justify your choice of visual encoding and idioms. Show the evolution of your design. How has it progressed? Justify the visualisation idioms you have chosen to represent your data.

Description (including screen shots) and explanation of final design.

[NOTE 1: You are encouraged to provide your own structure to this section (i.e., section headings etc).

NOTE 2: You MUST show evidence of iterative design (i.e., sketches of alternative and preliminary designs). ]

Include screenshots of final design.

**Figma link:** <https://www.figma.com/file/UWxd1ZE9F5eeS1g9glI1cY/Untitled?type=design&node-id=0%3A1&mode=design&t=S168Q81o0eQTJVIU-1>

**Draft of preliminary designs**

**Heatmap Chart: Monthly wages between few countries**

**A screenshot of a graph

Description automatically generated**

**Idea:**

* Mouse over show the tooltip
* Have the color legend show the wages range
* Few countries button that allow to filter out their details in table form

**Choropleth map: Unemployment Rate of India**

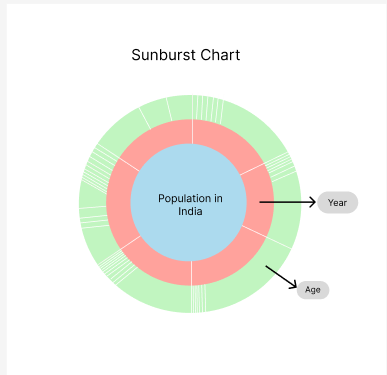
**A screenshot of a computer

Description automatically generated**

**Ideas:**

* Allow to zoom when clicking any states in map and zoom manually such as scroll up and down or double click.
* Can be filter the data using search bar or button
* After filter will also display the filtered statss in map.
* Have a color legend to show the range.
* After filter will display to table to show more clear data.
* Mouse over in the states will show the tooltip.
* Have click on function and display the tooltip function and fill the clicked state.

**Sunburst chart: Population of India**

****

**Ideas:**

* Have click on function on the year
* After click the year or age will show the result in center
* Mouse over to show to tooltip.

**Pie Chart: Reason of India people migrate**

**A pie chart with a number of different colored circles

Description automatically generated**

**Ideas:**

* Have mouse over to show the tooltip
* Have 2 filter button for show the male and female migration reason.

**Clustered stacked bar chart**

**A graph of bar graph with text

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**Ideas:**

* Mouse over will show the tooltip.
* Have color legend to display the categories.

**Bubble chart:**

**A screenshot of a computer screen

Description automatically generated**

**Ideas:**

* Mouse over will show the tooltip.
* Have color legend to display the range.
* Search bar to filter the different number of bubbles.

# **Validation [optional - Bonus Points]**

Test your visualisation with users and report the results.

# **Conclusion**

Provide a summary of the project and what you learnt from doing it.

# **References**

References consulted (blogs, books, academic papers, discussion/help forums - for both design and programming)