## Assignment: CSE5007 Exploratory Data Analysis

The purpose of this assignment is to become familiar with the process of exploratory data analysis and be able to use an off-the-shelf visualization tool such as Python to conduct exploratory data analysis. The task in this assignment is to use a software tool such as formulate Python to group of questions (Ref: https://uta.pressbooks.pub/datanotebook/chapter/2-2-formulate-a-research-question/) about a dataset that you have chosen for completing this assignment. Then you explore the dataset using the software tool to answer the questions. Finally you need create visualization for presenting your answers to the questions. You need document all the questions you asked and the steps you performed from start to finish (i.e, the steps for formulating the questions through exploring the dataset, exploring the dataset for answering the questions, and steps for visualizing the answers

Design visualization using one of the following website

- 1. <a href="https://data.gov.in/">https://data.gov.in/</a>
- 2. <a href="https://www.mospi.gov.in/">https://www.mospi.gov.in/</a>
- 3. <a href="https://www.rbi.org.in/">https://www.rbi.org.in/</a>
- 4. https://censusindia.gov.in/census.website/
- 5. <a href="https://ncrb.gov.in/">https://ncrb.gov.in/</a>
- 6. <a href="https://www.india.gov.in/">https://www.india.gov.in/</a>
- 7. https://www.indiastat.com/
- 8. <a href="https://www.mohfw.gov.in/">https://www.mohfw.gov.in/</a>
- 9. <a href="https://indiaai.gov.in/datasets">https://indiaai.gov.in/datasets</a>
- 10. <a href="https://nfsa.gov.in/">https://nfsa.gov.in/</a>
- 11. <a href="https://dea.gov.in/data-statistics">https://dea.gov.in/data-statistics</a>
- 12. <a href="https://www.india.gov.in/">https://www.india.gov.in/</a>
- 13. <a href="https://bhuvan.nrsc.gov.in/home/index.php">https://bhuvan.nrsc.gov.in/home/index.php</a>
- 14. https://dbie.rbi.org.in/DBIE/dbie.rbi?site=home
- 15. <a href="https://www.gbif.org/dataset/9e7ea106-0bf8-4087-bb61-dfe4f29e0f17">https://www.gbif.org/dataset/9e7ea106-0bf8-4087-bb61-dfe4f29e0f17</a>
- 16. https://ieee-dataport.org/datasets

You don't need to use the whole data, but you may choose to visualize just one or two or a group of states/countries/continents. Make sure the visualization will effectively communicate the data. You are free to use any graphics or charting tool.

The soft copy of the document needs to be uploaded in VTop on or before 5<sup>th</sup> June 2023.

You must include your Name and Register number in the document.

The goal is to turn data into information, and information into insight.

"The best way to learn data science is to do data science."