CS412 – Project Report Instructions

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1. **Submission Requirements**
   - When submitting, please ensure your file name starts with your **group number** (e.g., C1-1_YourFileName). You can find the group number from the presentation schedule table.
   - Submit the **final report** as a **PDF** following the IEEE format and page requirements (refer to the slides from week 7 for details)
   - Submit the **supplementary materials**:
     - **Source code**: Provide the source code as an **attachment** or via a **link** (e.g., GitHub repo).
     - **Data**: Share the data using one of the following ways:

       - Attach it as a compressed file (e.g., ZIP or TAR) if the file size allows.
       - Provide a link to the data hosted online (e.g., on a platform like Google Drive or directly to the data sources).
       - Upload the data to an open-source platform (such as Hugging Face or Kaggle and include the link in your report.)

2. General Requirements

   - Clarity and structure
   - Problem definition
   - Data Description
   - Experimental Design
   - Results, Analysis, and Findings
   - Visuals and Explanations
   - Discussions
   - Novelty statement (Graduate Group Only)
   - Group member contributions
   - Format and Page limit
   - References

3. **Some tips**

Feel free to check the following tips out if applied to your project:

   - Data
     - Data Source, Size, and Context: Provide details about the source of the dataset, its size (number of instances and features), and relevant context, such as the domain or field from which the data is derived.

- o Data Cleaning and Processing: Describe the data cleaning techniques, including how missing values were handled and how outliers were identified and managed.
  - o Feature Engineering: Explain the features you created, transformed, or selected, and discuss why they are essential for your analysis.
- Method
  - o Explain the chosen approach, for example, why you selected supervised or unsupervised learning and how they used to solve your problem.
  - o Briefly describe the methods/algorithms you adopted so that people without a background can understand; you can also write pseudo code if you'd like.
  - o Explain why you chose them and how they align with the problem you're addressing.
  - o If you develop an innovative approach, explain your design.
- Results, analysis, and discussion
  - o Present and analyze the results obtained from the implementation
  - o Visuals along with the explanations
  - o Evaluate whether the results met the initial objectives
- Discussion
  - o Analyze the model's performance. If you think the model's performance is not satisfactory, investigate potential reasons, considering factors such as data size, imbalance, bias, and the model itself... etc. If applicable, evaluate overfitting or underfitting issues.
  - o You can also try to analyze possible limitations.
  - o If you attempted any improvements, describe what was done, the outcomes, and the reasons for success or failure.
  - o Mention any encountered problems and propose potential solutions that could be explored in the future.
- Conclusion
  - o Briefly summarize the findings
  - o What have you learned from the project
- Group member contributions
  - o List your group member contributions
- References
  - o Make sure that all reference details (authors, paper title, year, press.) are included at the end of the report. In the text, citations should be simplified to numbers (e.g., if you are using the IEEE format, it should be illustrated in the provided template).