IST 5520, Fall 2022, Chen

**Project Evaluation Form – Milestone 2: Data Analysis I**

**Submission Due Oct 30, 11:59 PM**

**Instruction:**

1. Cleanse and visualize data. The project report should include:

* Introduction (refined from M1)
* Data Source and Collection (refined from M1)
* Data manipulation (newly developed)
* Data summarization and visualization (newly developed)

Read the evaluation criteria carefully on the next page for the detail.

1. Use Markdown in jupyter notebook to write your project report. You need to use proper Markdown syntax to format your report. Do not use MS Word or other format.
2. Please submit the following documents into Canvas:

* The project report written in .ipynb file;
* The Evaluation form with full project team information (see below table).

**Project Team Information (filled in by students)**

|  |  |  |
| --- | --- | --- |
| **Member name** | **Percent contribution** | **Activities completed by the member** |
| Sravani Garikapati | 25 | Data Cleaning, Visualization, Project Proposal Writing |
| Prabhukanth Potlapalli | 25 | Data Cleaning, Visualization, Project Proposal Writing |
| Rasheed Mohammad | 25 | Data Normalization, Correlation Analysis, Project Proposal Writing |
| Sanjay Nimmagadda | 25 | PCA, Variable Selection, Project Proposal Writing |
|  |  |  |

**Evaluation Summary – M2 (filled in by instructor)**

|  |  |  |  |
| --- | --- | --- | --- |
| **Criteria** | **Target %** | **Comments** | **Evaluation** |
| * Refine your report based on M1. * Extract and transform potential variables from the data source(s). Cleanse your dataset(s). | 20 | Need to include refinement on M1. Keep and refine background and those research questions. The milestones are incremental. | 18 |
| * Manipulate and clean your dataset properly. * Properly deal with categorical variables. * Properly detect outliers and deal with missing values in your dataset. | 30 | Not clear how the object sub\_df will be used. | 30 |
| * Summarize and visualize data by using appropriate methods. * Professionally interpret your data summary and visualization. * Use various dimension reduction techniques (visualization, correlation, principal component analysis, variable selection etc.) to explore your data. * Provide summary statistics, correlation table/plot, and at least 4 professional graphs with detailed and proper interpretations. | 30 | Data analysis is about telling stories. Need to interpret your data summarization and visualization. Without those interpretations, your current work is hard to understand. | 25 |
| * Format your project report in a professional way. * Professionally organize your contents to show your data management and analysis efficiently and concisely. * Write your project report by using appropriate Markdown syntax. | 10 |  | 10 |
| * Use the repository to manage all your project documents including meeting schedules, meeting minutes, and the proposal (the instructor should be able to verify this). * Your github repository should contain the latest documents for your project deliverables. | 10 |  | 10 |
| The report satisfies all of the following criteria:   * It tells a very interesting story; * The data manipulation methods are professionally applied; * The whole document is well written with no or few grammar or writing issues. | 10 bonus | Need to use a storyline to organize all data analysis and tell interesting stories. |  |
| **Total** | **100** |  | **93** |