

## GRADING RUBRIC

	Partially Achieved	Merit	Distinction
DATA ANALYSIS COMPONENTS			
<b>Problem Statement &amp; Background</b>	The problem is stated with poor background or motivation. Importance is not given to documentation and previous works on the topic.	The document shows some investigative components. Background is provided and the importance of the problem is remarked. However, it lacks some components, like references of current work or the writing is poor.	The document shows a proper background of the problem and its potential applications.  The team has done good research on the current techniques and approaches of solutions to the main problem. References are also provided.
<b>Data Wrangling &amp; Cleaning</b>	The team did not document how they gathered the data. They state that some cleaning process was implemented, but little evidence of this is given.	The team provided enough documentation on how the information was gathered. The document explains what cleaning and preprocessing of data was made. However, some parts of their cleaning procedure lack proper justification.	The team did exceptional research on gathering useful datasets and provided their respective documentation. Different data cleaning processes were implemented along with proper explanations of why their processes are valid and do not corrupt the data.
<b>Descriptive Analysis</b>	The team did a poor descriptive analysis. They show some basic plots without any insights on why these are meaningful for their analysis. Some conclusions are given, but these are either driven by common sense or large logical leaps from their analysis.	The team shows a descriptive analysis that is relevant to their work. They show meaningful data visualizations and derived assertive conclusions from their analysis.	Besides achieving a 'Merit' grade analysis. The team went further in by using non-standard tools that improved their descriptive analysis. The team shows great creativity and derived remarkable hypotheses from their work.
<b>Model and Statistical Analysis</b>	Very simple analysis was performed. The team used some technique/model, like linear regression, but did not check that the proper assumptions were satisfied by their data. They also use some ML technology, but they overlooked possible errors such as overfitting, etc.	Statistical tests were used to corroborate their hypothesis and derived correct conclusions from these. Either their EDA was quite successful in solving their problem, or further ML models were required. These models were used correctly, without overlooking possible pitfalls and adding appropriate documentation.	Beside achieving a 'Merit' grade. Their analysis went beyond the expectations of the course. The team used different models and approaches. They even used methods not taught in class that fit the model better. Their work can be compared to that of an experienced Data Engineer/Scientist team.
<b>Conclusions &amp; Further Work</b>	The team did not derive appropriate conclusions from their work. Additionally, no significant progress towards their main problem is shown.	The team derived conclusions that are statistically verifiable from their analysis. These conclusions show a significant progress towards solving their problem.	Beside achieving a 'Merit' grade. The team went even beyond their main task and managed to solve a more intricate problem. Their work is immediately impactful to their stakeholders.

APPLICATION COMPONENTS			
Front-end <sup>1</sup>	Front-end uses basic tools learned in class. It shows some data visualizations, but these are not very informative and do not allow the user to make assertive conclusions.	The dashboard allows the user to investigate the data in such a way that a multitude of conclusions and hypotheses are immediately validated.	The dashboard shows a level of customization, esthetic, and user experience that is immediately useful in a production system for the portfolio company.
Back-end <sup>2</sup>	The project makes use of all the Required infrastructure but their use is ad hoc.	The EC2 instance used performs real-time calculations for the dashboard. The RDS instance is used to feed data to the dashboard in a way that the user doesn't download all the data in one step	Beside achieving a 'Merit' grade. The infrastructure is set up as an API that is readily made useful to the portfolio company.
Docu	Very little documentation is provided in the report.	Some level of documentation is provided in the report. However, some other important documentation is omitted, like proper commenting of important functions defined in their code.	A complete documentation is included in the report. In addition, their code is properly documented; good comments and high level usage documents created using Markdown. A team at the portfolio company could readily take control of the project.
TEAMWORK COMPONENTS			
Teamwork	The team is clearly divided. A few of the teammates provided very little input or were not involved in some crucial components of the project.		This team showed good teamwork during the whole program. They were helping each other and distributed their workload among teammates evenly.
Deliverables	Team had problems handing in their deliverables on time. This made a negative impact on their project.		This team was able to hand in their work on time. This allowed them to attack their problem on time and deliver a good project.
PRESENTATION			
Presentation <sup>3</sup>	The presentation had left out important details and/or was not engaging to viewers.	The presentation was very engaging, it covered highlights of the projects and the viewer would not be confused about the project objective and analysis.	The presentation was a creative and engaging 10 minutes. Highlights were covered and viewers completely understood the objectives and insights of the project. The methodology and analysis was understood by viewers. There was a balance between important and core parts of the project. <sup>4</sup>

<sup>1</sup> Front end grading may vary for projects that do not have a front-end focus.

<sup>2</sup> Back end grading will be dependent on the project, but you can expect a similar schema for grading.

<sup>3</sup> This presentation component is a combination of all elements of the presentation as whole and may include consideration of the design of any elements used during presentation.

<sup>4</sup> This balance refers to the balance between details of highlighting the project objectives/results with the techniques used to achieve them (both are equally important to highlight).