

DS08 – Consultancy Project

Project Description

Form a group of two (2) members.

Identify and define a problem. The problem could be from your research project or a problem that your organization needs to address. The problem must be a real-world application.

Implement data science methods or techniques that you have learned to solve the problem. Follow the data science life cycle: data collection, data cleaning, data exploration, data modelling (prediction), model evaluation.

Draft a project proposal of two (2) pages (excluding cover page) describing the background, the objective of your project and the dataset that you need to collect. The proposal should contain the following.

- A cover page containing project title, group number and name.
- The background and the problem definition.
- Objective of the project.
- Description of the dataset.

Each group will be assigned an advisor. Two consultancy sessions will be held with the advisor.

Create an Adobe Spark page to document the project. The page should contain the following.

- Background, problem definition and objective
- Data preprocessing: normalization or standardization etc.
- Data analysis: univariate analysis (descriptive statistics), bivariate analysis, hypothesis testing, feature selection
- Data modelling: regression or classification techniques, parameters of the predictive models
- Results: confusion matrix, performance metrics e.g. recall, precision, accuracy
- Insight or knowledge that has been obtained from the data

Present the project using the Adobe Spark page.

Important Dates

- Group formation and registration: 30th Oct 2021
- Project proposal: 11th Dec 2021
- First consultancy session: Week 15
- Second consultancy session: Week 16
- Project presentation: 5th or 6th Feb 2022

Grading Rubric – Presentation

Component	Knowledge and Content [50 marks]	Website [30 marks]	Q&A and Delivery [20 marks]
10-9 (Excellent)	Presented full knowledge and deep understanding of both problem and solution. Insight is evident and well explained	Information articulated clearly and is organized in a structured way with logical flow between parts. Effective use of charts, graphs, tables, figures etc.	Confidence is noteworthy. Speaks very clearly and eloquently. Manipulates tone, speed, and volume, to emphasize important ideas and hold the listener's attention greatly.
8-6 (Good)	Presented good knowledge and understanding of both problem and solution. Insight is less evident and explained	Information articulated clearly but the flow is somewhat hampered. Limited use of charts, graphs, tables, figures etc.	Confidence is good. Speaks clearly and eloquently. Uses tone, speed, and volume to emphasize important ideas and hold the listener's attention.
5-3 (Average)	Presented moderate knowledge and is uncomfortable with information. Insight is vague and explained	Information articulated clearly but it is difficult to follow the presentation. Charts, graphs, tables, figures etc. are not used.	Confidence is fair. Speaks fairly clear and holds attention of listener fairly.
2-1 (Poor)	Presented minimal knowledge and understanding of both problem and solution	Information is arranged in confused way. Charts, graphs, tables, figures etc. are not used.	Lacks confidence and hard to understand what was spoken.