In this Assignment, you will demonstrate your understanding of the videos and the readings by answering open-ended questions, defining data science and data scientist, and describing the different sections comprising a final deliverable of a data science project. Please note that this assignment is worth 10% of your final grade.

Project Title \*



Based on the videos and the reading material, how would you define a data scientist and data science? **(3 marks)**

1. ​Data science: Based on the videos and the reading material data science is what data scientist do, which is, the use of data to determine optimum solutions to existing problems. It is not confided to discipline, platform and the size of data. Data science can help to understand the environment or context, analyze existing data and reveal hidden opportunities.
2. Data scientist: A data scientist is someone applies tools and techniques, including software programming, analytics and communication, to analyze data, gain insights and use the insight to inform stakeholders for decision making. Typically, a data scientist should be able to identify or understand a problem, identify or collect relevant data, apply correct tools and techniques to analyze data, visualize data to gain insights, develop a story, communicate it to stakeholders for decision making. It is beneficial for a data scientist to have attributes, skills and knowledge including curiosity, programming, statistics, probability, mathematics, working with relational databases, and storytelling, among other attributes that can help an individual. Important to note is that data scientist come different backgrounds, not limited only to statistics or engineering.

As discussed in the videos and the reading material, data science can be applied to problems across different industries. What industry are you passionate about and would like to pursue a data science career in? **(1 mark)**

​Social science-to better understand individual and social behavior to empower individuals to take charge of their lives.

Based on the videos and the reading material, what are the **ten** main components of a report that would be delivered at the end of a data science project? **(5 marks)**

1. ​Cover page: which should include the title of the project or report, name of authors, their affiliations and contacts, version of document, name of publihsre and data of publication.
2. Table of Contents: a guide to content and sections of the document or report, including list of tables and graphs.
3. Executive Summary/Abstract: a high-level synopsis of the report, highlighting key aspects or take-away points of the report.
4. Introduction: introduces the topic to the reader and includes summary of literature review, problem, project aims and objectives or question.
5. Methods: outlines methods, procedures and techniques for data collection and analysis, including issues relate to quality control and assurance.
6. Results: presents findings of the project.
7. Discussion: interpretation of findings, placing them in the context of existing literature. Should clearly put forward the significance of the findings.
8. Conclusion: ‘drives home’ the key points or message of the project.
9. References: provides complete and comprehensive sources of cited literature in the report. Its is good practice to provide this information in a report, acknowledges the work done by others.
10. Acknowledgements: appreciation of individuals and institutions that supported the work.

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