1. **How would you define a data scientist and data science?**

Data science is a field that involves the extraction of insights and knowledge from large and complex data sets through the use of various techniques and tools such as machine learning, statistics, and visualization. It encompasses a wide range of tasks including data cleaning, data analysis, and model building.

A data scientist is a professional who specializes in the field of data science. They are responsible for designing and implementing methods for collecting, analysing, and interpreting large data sets. They use their expertise in statistics, programming, and domain knowledge to extract insights and make data-driven decisions. They also communicate their findings to stakeholders in a clear and effective manner.

2. **Data science can be applied to problems across different industries. Give a brief explanation describing what industry you are passionate about and would like to pursue a data science career in?**

I am passionate about the healthcare industry and would like to pursue a data science career in this field. The healthcare industry is a field that is constantly growing and changing, and data science can play a crucial role in improving patient outcomes and reducing costs.

My interest in this industry developed when I studied biotechnology in school. I was fascinated by the ways in which technology and data could be used to understand and improve human health. I am particularly interested in using data science techniques to analyse patient data in hospitals, in order to identify patterns and trends that can help to improve patient care. For example, analysing patient data could help to identify risk factors for certain diseases, or to develop more effective treatment plans. Additionally, data science can be used to optimize hospital operations, such as by predicting patient demand and managing resources accordingly.

3. **What are the ten main components of a report that would be delivered at the end of a data science project?**

- ✓ Cover page
- ✓ Table of contents
- ✓ Executive summary
- ✓ Detailed contents
- ✓ Acknowledgments & References
- ✓ Problem statement
- ✓ Appendices (if needed)
- ✓ Introduction and research background
- ✓ Methodology and data sources
- ✓ Results, discussion, and conclusion sections.