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1. What is Data Science?

↳ Data Science is a field that utilizes various methods of processing and algorithms to gain or extract knowledge from the gathered data. It can be used in businesses to gain valuable insights and expertise that can result in better decision-making that could greatly improve the state of the company.

2. Differentiate between Business Intelligence (BI) and Data Science?

↳ Both Business Intelligence and Data Science are both data-driven processes to gain information that can support businesses in decision-making. Business Intelligence focuses on identifying historical events / trends and analyzing it, and it is also less complex, easier to understand, and costs less. Data Science, on the other hand, aims to predict future trends and uses more complicated tools like machine learning, and also more complex and expensive compared to Business Intelligence.

3. Discuss the role of data visualization in data science. How can effective visualizations improve the interpretation of data and findings?

↳ Data Visualization has a vital role in data science. It is the final output after doing the necessary processes and methods to come up with that information. Its job is to explain the output in a simple and easy-to-understand way that most people can understand because tendency not all decision-makers are knowledgeable with the technical terms associated with data science. So it is data visualization's job to tell the story of your output and this will greatly affect whether the decision will be beneficial or not.



4. Give me at least (3) fundamental concepts of Data Science and explain each

- Data Collection: It is the first phase in which you will be collecting data from various sources like databases and store it in storage where you will perform various tasks.

- Data Preparation: It is the second and probably the longest and hardest phase. This is where you will be transforming the data into a specific format for analysis. Aside from transforming it, you will also handle all the irregularities associated with the data like missing data, inconsistency, duplicates, and more. The cleaner the data, the accurate and reliable the results will be.

- Data Visualization: This is the third and probably the last phase. This is where you will now explore the prepared data and provide visualizations that summarize the results so others can use them to make great decisions.