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Data Analysis
Assignment Chapter 1

Instructions

1. You can take help from the lecture notes to revise the concepts that we have covered
2. Choose the best suitable answer and submit the word document
3. Please submit the assignment through TalentLabs Learning System.

Question 1 (3 points):

Write down the Data Analytics workflow and identify the position of Data Analysis / Insights Generation?

1. Understand stakeholder's problem and desired outcome
2. Collect data that best serves the problem
3. Perform data wrangling for data preparation
4. Conduct data analysis and create visualizations
5. Document the process to ensure the process can be repeated
6. Communicate insights to stakeholders

Question 2 (2 points):

Data Analysis Majorly covers the following processes:

☒ A – Data Ingestion

☒ B – Generating Insights

☒ C – Predictive Analysis

☒ D – Accessing Data

☒ E – Outlier Identification

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Question 3 (2 points):

Which of the following analytical techniques belong to the descriptive analysis?

☒ A – Mean of data points
☐ B – Sampling Error
☒ C – Frequency Distribution
☒ D – Quantile Distribution
☐ E – Hypothesis testing

Question 4 (2 points):

Differentiate between Inferential and Predictive Analysis with examples?
You should talk about both the definition and examples.

	Inferential Analysis	Predictive Analysis
Definition	Infer information from data sets where it helps test hypothesis in studies	Analyse data trends and use that insights to predict future trends
Example	Probabilistic analysis, Variable importance, Hypothesis testing to resolve a research problem	Fraud detection, Netflix's recommendation, credit scores of customers, email spam detection

Question 5 (2 points):

Which of the following are impacts of data Analysis

☒ A – Business Decisions
☐ B – Data Wrangling
☒ C – Improved Customer Service
☒ D – Product Innovation
☒ E – Improvised Marketing

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Question 6 (1 point):

Explain the use of data analysis with one real time example / application?

Google Analytics 4 provides real-time analytics capabilities, allowing website owners to continuously track the immediate impact of new campaigns and website changes. For example, you can instantly see if a one-day promotion is driving more traffic to your site or app.

Question 7 (2 points):

Write two mainstream ways of presenting our Insights?

1. Visuals and graph
2. Report writing