

# 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?

##### Data Analytics workflow:

1. **Ask:** Understand the problem and the desired outcome.
2. **Prepare:** Data collection, acquiring data that best serves the problem.
3. **Process:** Data wrangling, optimizing data for the task.
4. **Analyse:** Data analysis and visualization to look for insights.
5. **Document:** Documenting the process to ensure it can be repeated.
6. **Take action:** Communicate insights to stakeholders.

**Position of Data Analysis / Insights Generation:** Evaluating and processing data into information which can be presented as meaningful insights is called Data Analysis.

#### 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

**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 used to test certain hypothesis.	Analysing the data trends and using the insights to predict the future trends.
Example	Research, academic studies	Netflix Recommendations

**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

**Question 6 (1 point):**

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

Data analysis is used in business sales to identify which products are the most popular, which have the highest durability, and which may negatively impact the brand. For example, a company may analyse sales data to determine which products should be promoted or discontinued based on customer purchasing patterns.

**Question 7 (2 points):**

Write two mainstream ways of presenting our Insights?

1. Visuals and Graphs
2. Report Writing