

# **Data Analysis Assessment questions**

#### Note:

Please be advised that these assessment inquiries are designed to accommodate interns with diverse skill levels, ranging from novices to seasoned analysts. Should you encounter any challenging questions, you are encouraged to seek solutions independently or reach out to us for assistance at intern@placementdost.com. Best wishes for success in completing the assessment!

## Tools needed: - MS Excel

- 1. Data Import and Cleanup:
  - Import the employee surveys dataset into Excel.
  - Identify and handle any missing or inconsistent data.
- 2. Data Validation:
  - Implement data validation for the "Response" column to ensure that values are within the range 0 to 4.
- 3. Conditional Formatting:
  - Apply conditional formatting to highlight responses with "Strongly Disagree" in a distinctive color.
- 4. IF and Nested IF Functions:
- Use the IF function to categorize responses in a new column as "Positive," "Neutral," or "Negative" based on the numeric scale.
- 5. VLOOKUP and HLOOKUP:
- Create a new sheet with a summary table that uses VLOOKUP and HLOOKUP to display responses for a specific question and department.
- 6. Pivot Tables Basic:
  - Generate a Pivot Table to analyze the average response values for each department.
  - Include slicers for easy filtering by department.
- 7. Pivot Tables Calculated Fields:
- Enhance the previous Pivot Table by adding a calculated field to compute the overall average response for each question.

#### 8. Pivot Charts:

- Create a Pivot Chart based on the Pivot Table created in task 7.
- Customize the chart to represent the average responses visually.

#### Advanced Formulas - INDEX-MATCH:

- Use INDEX-MATCH to retrieve the "Response Text" for a given response value in a separate sheet.

# 10. Data Analysis with Tables:

- Convert the dataset into a Table and perform data analysis tasks using Table functionalities

# 11. Scenario Manager:

 Use Scenario Manager to analyze different scenarios for response values, such as optimistic, pessimistic, and realistic.

#### 12. Solver Add-In:

- Utilize the Solver Add-In to optimize response values to achieve a target overall average while considering constraints.

## 13. Advanced Charting - Waterfall Chart:

- Create a Waterfall Chart to visualize the cumulative effect of positive and negative responses for a specific department.

# 14. Dynamic Named Ranges:

- Implement dynamic named ranges for the dataset to automatically expand as new survey responses are added.

## 15. Data Model Relationships:

- Establish relationships between tables within Excel to facilitate more complex analysis.

## 16. DAX Formulas - Measures:

- Write DAX formulas within Excel to create measures that calculate the overall average response across all questions

## 17. What-If Analysis - Goal Seek:

- Use Goal Seek within Excel to determine the required change in responses to achieve a specific overall average.

### 18. Advanced Dashboard:

- Create an advanced dashboard using only Excel features, with interactive elements (e.g., dropdowns, buttons) for dynamic exploration of survey data.