

Excel:

1. Load the "employee_data.xlsx" dataset and use Excel formulas and functions to calculate additional columns (e.g., age from date of birth, tenure from hire date). Submit the updated Excel file.
2. Implement data validation rules in Excel to ensure data integrity (e.g., restricting salary range, allowing only certain values for department). Submit the Excel file with data validation rules.
3. Create visualizations (charts, graphs, pivot tables) to analyze the employee data and identify patterns or insights. Submit the Excel file with visualizations.
4. Automate a task or process in Excel using VBA or macros (e.g., formatting data, generating reports). Submit the Excel file with the VBA code or macro.
5. Perform any additional data analysis or manipulation tasks on the employee data using Excel's features and capabilities. Submit the Excel file and your findings.

SQL:

1. Create a database and import the "sales_data.csv" dataset into a table. Write a SQL query to retrieve the total sales and average discount for each product category and customer segment.
2. Write a SQL query to join the sales data table with a product details table (you can create a dummy product details table) based on the product ID, and retrieve the product name and description along with the sales data.
3. Create a new table to store monthly sales data by aggregating the sales data based on the order date. Write a SQL query to calculate the month-over-month growth rate for total sales.
4. Write a SQL query to retrieve the top 10 customers based on total sales, and include their customer name, total sales, and average discount.
5. Perform any additional data analysis or manipulation tasks on the sales data using SQL queries, and submit your code and findings.

Power BI:

1. Connect to the "sales_data.csv" dataset and import it into Power BI. Submit a screenshot or report showing the successful data import.
2. Use Power Query Editor to transform and clean the sales data (e.g., removing duplicates, handling inconsistent data formats). Submit the applied transformations and the cleaned dataset.
3. Create an interactive report or dashboard in Power BI, including visualizations such as charts, maps, and slicers, to analyze the sales data. Submit the Power BI report or dashboard file.
4. Implement data modeling and relationships between tables in Power BI (you can create additional dummy tables if needed). Submit the data model and relationships.
5. Implement row-level security or data privacy measures in Power BI to restrict access to sensitive data or apply filters based on user roles. Submit the Power BI file with the security measures implemented.