DATA ANALYTICS - PROJECT

Here is a typical step-by-step process for completing a data analytics project focused on calculating the "Sum of Sales by Country." This structure follows recognized best practices in data analytics and is widely applicable, especially for fresher-level data engineer or analyst portfolios.

Stepwise Process for "Sum of Sales by Country" :

Step 1 Define Objective

Clearly define the objective: to analyze and calculate the total (sum) of sales for each country in the dataset.

Step 2 Data Collection

Gather the required sales data. This usually involves downloading, extracting, or receiving files in formats like CSV, Excel, or directly from a database or data warehouse.

Step 3 Data Preparation and Cleaning

Import the dataset into an analytics tool Excel, SQL, Python, or Power BI . Clean the data by:

- Handling missing values
- Removing duplicates
- Correcting inconsistent formatting (e.g., standardizing country names)
- Ensuring data types (e.g., sale amount as numeric).

Step 4 Exploratory Data Analysis EDA

Understand the structure and quality of the data. Inspect for:

- Distribution of sales figures
- Number of unique countries
- Potential outliers or anomalies in data.

Step 5 Data Transformation

Transform or aggregate the data as needed:

- Group data by country
- Sum the sales values for each country.

Step 6 Calculation and Analysis

Perform the actual calculation using group-by and aggregate sum functions (e.g., SQL's BY, Pandas' groupby().sum() in Python, or PivotTables in Excel).

Step 7 Visualization Optional but recommended)

Present the results effectively using:

- Bar charts, maps, or tables showing each country and its corresponding sum of sales
- Dashboards in a tool like Power BI, Tableau, or Excel for interactive exploration.

Step 8 Insights and Reporting

Interpret the results. Highlight key findings such as:

- Top-performing countries
- Regions with unexpectedly low or high sales
- Any detected anomalies or data quality issues.

Step 9 Documentation and Communication

Document all steps, key metrics, and takeaways. Communicate findings through a written report, slides, or an interactive dashboard to stakeholders or faculty.

These steps represent the industry standard workflow for analytics projects and are ideal for describing work in resumes, interviews, and academic submissions.

Github - Dataset & Dashboard - link

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