

Assignment: ESG Data Analysis

Background

You are working as a Data Analysis Intern for a consulting firm that advises companies on their ESG (Environment, Social, and Governance) performance. ESG is a set of standards measuring a company’s impact on the environment, how it manages relationships with employees, suppliers, customers, and communities, and how well it is governed.

Objective

Analyze the ESG data of five companies and provide insights into their performance. Your findings will help guide strategic recommendations.

Sample Data

Below is the sample ESG dataset for five companies (Company A to E) for the most recent reporting year.

Company	Carbon Emissions (tons)	Water Usage (m³)	Employee Diversity (%)	Community Investment (\$k)	Board Independence (%)	ESG Score (0-100)
Company A	2,000	10,000	35	150	80	65
Company B	1,200	8,500	45	120	60	70
Company C	2,500	11,200	32	100	90	62
Company D	900	7,000	55	200	85	78
Company E	1,700	9,800	40	175	75	68

Tasks

- Data Exploration**
 - Calculate the mean and median for each ESG metric.
 - Identify which company has the highest and lowest score for each metric.
- Correlation Analysis**

- Determine if there is a correlation between Board Independence and ESG Score.
 - Identify any trends or patterns among Environmental metrics (Carbon Emissions, Water Usage) and the overall ESG Score.
3. **Visualization**
- Create at least two charts (e.g., bar charts, scatter plots) to visualize ESG performance and trends.
4. **Summary Report**
- Provide a written summary (200-300 words) of key findings and recommendations for improvement.
 - Highlight any outliers or companies that excel in specific areas.
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Deliverables

- Annotated Excel or CSV file with calculations.
- Two charts visualizing your findings.
- Written summary and recommendations (Word or PDF format).