

Project Development Phase

Model Performance Test

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| Date | 26 June 2025 |
| Team ID | LTVIP2025TMID51709 |
| Project Name | Plugging into the Future: An Exploration of Electricity Consumption Patterns Using Tableau. |
| Maximum Marks | |

Model Performance Testing:

Project team shall fill the following information in model performance testing template.

| S.No. | Parameter | Screenshot / Values |
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| 1. | Data Rendered | The dataset contains electricity consumption records across different regions and sectors over multiple years. It includes attributes like date, location, usage (kWh), time of day, and consumer type (residential, commercial, industrial). |
| 2. | Data Preprocessing | Data was cleaned by removing null values, correcting data types (e.g., converting date columns), and merging datasets (e.g., weather or region names). Redundant columns were removed, and meaningful headers were added. |
| 3. | Utilization of Filters | Filters were applied for Year, Region, Sector Type, Month, and Time of Day. These allow users to interactively explore specific consumption patterns. |
| 4. | Calculation fields Used | Examples include: <ul style="list-style-type: none">- Peak Hour Indicator (IF statement for usage during peak hours)- Year-over-Year Growth %- Total Consumption aggregated using SUM- Average Daily Usage- Consumption Efficiency Ratio |

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| 5. | Dashboard design | <p>No of Visualizations / Graphs - The dashboard includes 6 visualizations:</p> <ul style="list-style-type: none"> - Time-series line chart - Sector-wise bar chart - Region-wise heatmap - Pie chart by consumer type - Daily usage trend - KPI cards with total consumption and efficiency |
| 6 | Story Design | <p>No of Visualizations / Graphs - The story includes 4 story points with 5 visualizations:</p> <ol style="list-style-type: none"> 1. Overview of Consumption Trends 2. Regional Analysis 3. Sector-Specific Usage 4. Insights & Recommendations |