**6.FUNCTIONAL AND PERFORMANCE TESTING:**

**6.1 Performance Testing:**

**Model Performance Test**

| Date | 19 June 2025 |
| --- | --- |
| Team ID | LTVIP2025TMID47771 |
| Project Name | Visualization Tool For Electric Vehicle Charge And Range Analysis |
| Maximum Marks | 2 Marks |

**Model Performance Testing:**

| **S.No.** | **Parameter** | **Screenshot / Values** |
| --- | --- | --- |
| 1. | Data Rendered | Data includes: Vehicle ID, Battery Level (%), Distance Travelled (km), Time of Charge, Location, Charging Type, Efficiency, Weather Data, etc. |
| 2. | Data Preprocessing | Null values removed, date-time formatted, distance converted (if needed), data grouped by vehicle and date, units standardized (e.g., km, %) |
| 3. | Utilization of Filters | Filters applied on: Battery level %, Location, Vehicle type, Date range, Charging station, Weather conditions |
| 4. | Calculation fields Used | |  | | --- |      | - Estimated Range = (Battery Level ÷ 100) × Max Range  - Charge Efficiency = Distance Travelled ÷ Charge Time  - Cost Estimation based on kWh | | --- | |
| 5. | Dashboard design | **No of Visualizations / Graphs – 5**  1. Line Chart (Battery % over Time)  2. Map (Charging Locations)  3. Bar Chart (Efficiency by Vehicle)  4. KPI Cards  5. Scatter Plot (Charge vs Range) |
| 6 | Story Design | **No of Visualizations / Graphs – 5**  1. Line Chart (Battery % over Time)  2. Map (Charging Locations)  3. Bar Chart (Efficiency by Vehicle)  4. KPI Cards  5. Scatter Plot (Charge vs Range) |