**4.3 Solution Architecture:**

**Solution Architecture**

| Date | 19 June 2025 |
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| Team ID | LTVIP2025TMID47771 |
| Project Name | Visualization Tool For Electric Vehicle Charge And Range Analysis |
| Maximum Marks | 4 Marks |

**Solution Architecture:**

Solution architecture is a complex process – with many sub-processes – that bridges the gap between business problems and technology solutions. It goals are to be:

● Enable real-time and historical EV data collection.

● Ensure accurate analysis of EV charging and range metrics.

● Provide interactive and insightful data visualizations.

● Design for scalability and high performance.

● Enable predictive analytics using machine learning.

● Maintain data security and regulatory compliance.

● Facilitate integration with third-party platforms and services.

● Ensure flexibility for future system enhancements.

● Support multi-device accessibility (desktop, tablet, mobile).

● Enable system monitoring and logging for maintenance.

