Project Design Phase-I
Solution Architecture

Date	31 January 2026
Team ID	LTVIP2026TMIDS24158
Project Name	Plugging into the Future: An Exploration of Electricity Consumption Patterns Using Tableau
Maximum Marks	4 Marks

Solution Architecture:

Solution architecture connects business needs with appropriate technology solutions to address electricity consumption analysis challenges in a structured manner.

- Electricity consumption data is collected from public sources, stored in an SQL database, processed using ETL techniques, and visualized through Tableau dashboards with web integration using HTML.
- The architecture defines the flow of data from raw datasets to cleaned and aggregated data, enabling time-series, seasonal, regional, and sector-wise analysis through interactive dashboards.
- Core features include data preprocessing, calculated fields, filters, dashboards, and storytelling. Development stages follow data collection, preparation, visualization, dashboard design, and deployment.
- Standard practices are applied for data formatting, performance optimization, dashboard usability, and scalability to support future enhancements and larger datasets.
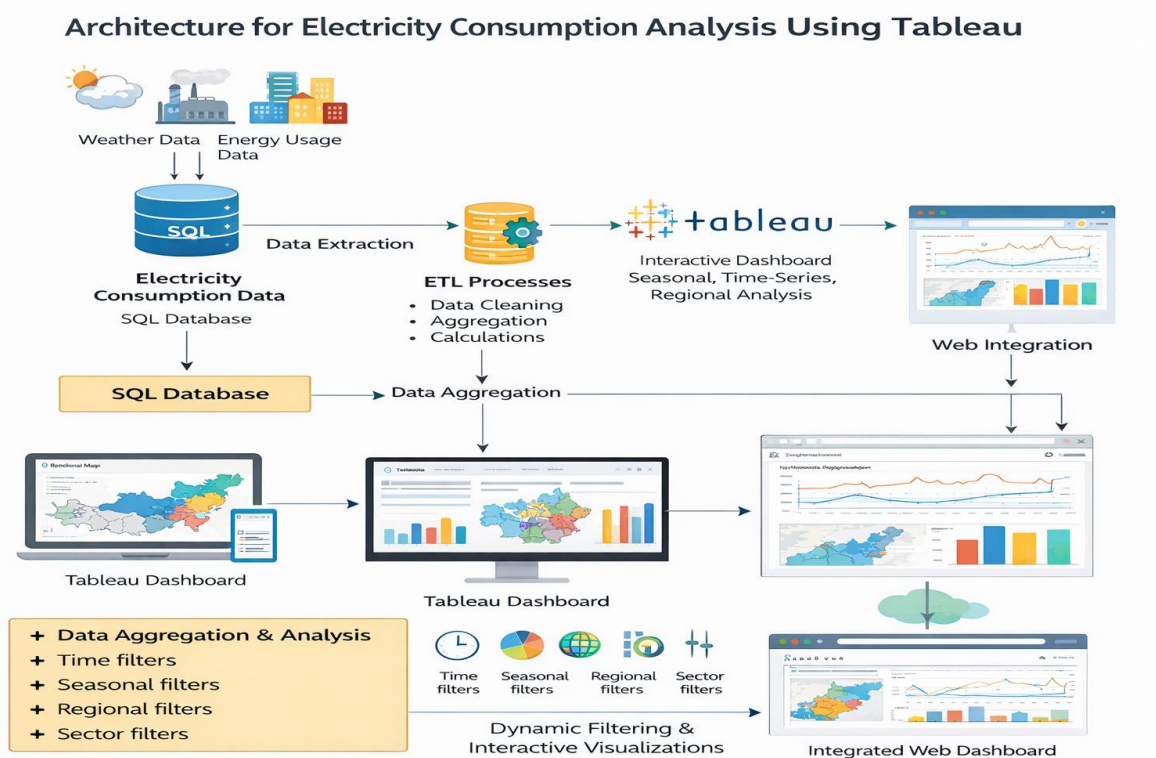
Solution Architecture Diagram:

Figure 1: Architecture and data flow for Electicity Consumption