

## Project Design Phase Solution Architecture

Date	21/06/25
Team ID	LTVIP2025TMID59134
Project Name	Plugging into the Future: An Exploration of Electricity Consumption Patterns Using Tableau
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. Its goals are to:

- The architecture separates data preprocessing, storage, visualization, and UI layers—making it easy to maintain, scale, and enhance.
- Cleaned data from MySQL is visualized using Tableau dashboards, offering region-wise, year-wise, and seasonal insights with filtering capabilities.
- Dashboards are embedded into a Flask-based web interface, allowing end users to interact with visual data through a user-friendly portal.
- The solution supports future extensions like forecasting models and can be deployed locally or on cloud platforms like Heroku or AWS.

### Solution Architecture Diagram:

