

Project Design Phase-II
Technology Stack (Architecture & Stack)

Date	12 June 2025
Team ID	LTVIP2025TMID48957
Project Name	Visualization Tool for Electric Vehicle Charge and Range Analysis
Maximum Marks	4 Marks

Technical Architecture

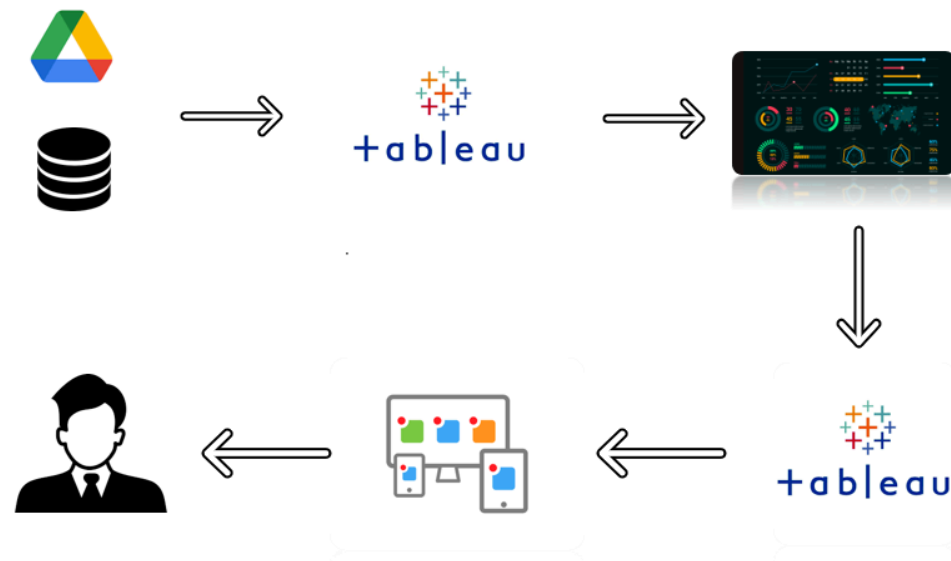


Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	Web UI to display visualizations using embedded Tableau dashboards	HTML, CSS,
2.	Application Logic-1	Embedding Tableau visualizations into the web application	Javascript (for embedding logic)
3.	Database	Data Type, Configurations etc.	MySQL
4.	File Storage	Storing datasets in database before uploading to Tableau	SQL Database
5.	Machine Learning Model	Not used in this project	—
6.	Infrastructure (Server / Cloud)	Hosted via Tableau Public and accessible via shared links	Tableau Public, Local Hosting

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Used for developing the frontend of the application	Technology of Opensource framework
2.	Security Implementations	Tableau Public handles content security; basic HTML/CSS website without sensitive user data	N/A
3.	Scalable Architecture	Tableau dashboards scale well for multiple users; embedding works on mobile and desktop	Tableau Public
4.	Availability	Tableau Public ensures high availability and uptime for visualizations	Tableau Server (Public)
5.	Performance	Dashboards are pre-rendered and embedded, so loading is quick and efficient	Tableau rendering engine

