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

Date	25 June 2025
Team ID	LTVIP2025TMID47715
Project Name	Comprehensive Analysis and Dietary Strategies with Tableau
Maximum Marks	4 Marks

Technical Architecture:

Example: Dietary Data Visualization for Smarter Student Health Decisions
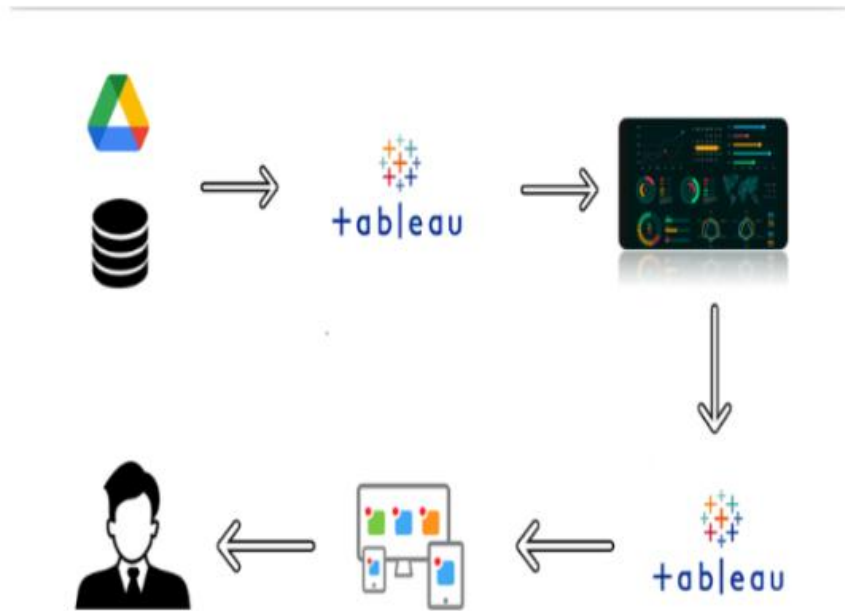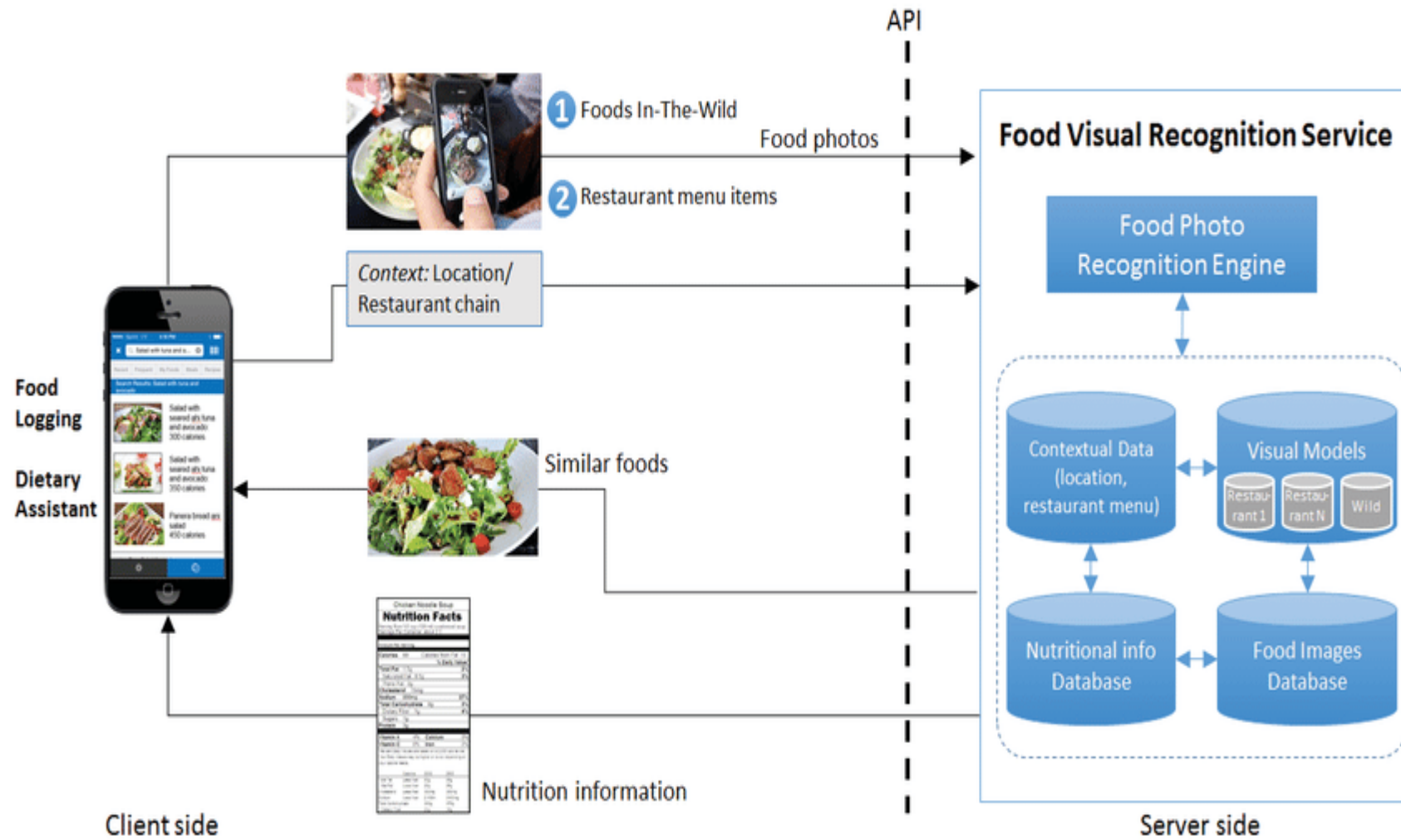
Technical Architecture:

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	How students and staff interact with the dashboard	Tableau Public (Web-based UI)
2.	Application Logic-1	Logic to process survey, meal, and nutrition data	Python (for preprocessing, optional)
3.	Application Logic-2	Logic for dashboard interaction	Tableau Filters & Parameters
4.	Application Logic-3	Logic for storytelling and dashboard narratives	Tableau Story Points
5.	Database	Data type and format (structured food logs and survey data)	CSV/Excel files (tabular student dietary data)
6.	Cloud Database	Optional storage/backup	Google Drive (optional)
7.	File Storage	Location for data files	Local Filesystem
8.	External API-1	External integration (if used)	Not used (local CSVs only)
9.	External API-2	Any other data source	Not used
10.	Machine Learning Model	Predictive models	Not applicable (no ML in this project)
11.	Infrastructure (Server / Cloud)	Deployment setup for dashboards	Tableau Public (Cloud), Local: Windows 10 + Tableau

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Libraries or tools used for data prep	Python, Pandas (optional for data cleaning)
2.	Security Implementations	Controls to protect dashboard content	Tableau Public Access Control
3.	Scalable Architecture	Flexibility to handle growing student data	Modular Dashboards, Tableau Cloud
4.	Availability	Ensures dashboard access at any time	Tableau Public (24x7 Hosted Access)
5.	Performance	Speed and responsiveness during interactions	Tableau Extracts, Filter Optimization