Project Planning Phase

Team ID: LTVIP2025TMI47618
Project Name: Comprehensive Analysis and Dietary Strategies with Tableau – A College Food Choices Case Study
Maximum Marks:

1. Project Title and Problem Statement

Title: Comprehensive Analysis and Dietary Strategies with Tableau – A College Food Choices Case Study

Problem Statement:
Many college students follow diverse dietary habits such as vegetarian, vegan, pescatarian, and omnivorous diets. However, institutions lack accessible, data-driven insights into how these food preferences correlate with student health perceptions and behavioral trends like obsession or underweight issues. This project addresses the need for a visual, analytical approach to understanding and improving campus dietary awareness through data cleaning, Tableau dashboards, and interactive storytelling.

2. Project Objectives

- To analyze food preference data collected from college students.
- To decode, clean, and structure the dataset using Python.
- To design Tableau dashboards that reveal dietary trends and health risks.
- To create interactive visual stories for better decision-making.
- (Optional) To embed the dashboard using Flask for wider accessibility.

3. Technologies Used

Python 3.x – Data decoding and preprocessing using pandas, numpy, openpyxl.
PyCharm – Used for script development.
Tableau Public – For visualizing dietary insights.
Flask – Web app integration of the dashboard.
GitHub – Code and dataset version control.
Excel – Raw data review and planning.

GitHub Repo:
https://github.com/lee10331/Comprehensive-Analysis-And-Dietary-Strategies-With-Tableau-A-College-Food-Choices-Case-Study

4. Tasks schedule

Day	Task
1	Data collection and understanding structure
2	Cleaning and decoding in Python
3	Initial Tableau dashboard design
4	Insight writing and Story integration
5	Testing, Flask embedding (optional)
6	Final edits and documentation

5. Resources Required

- Computer with internet access
- Python and Tableau installed
- Access to college survey data and codebook
- GitHub account for collaboration
- Optional Flask server for deployment
- Microsoft Word or WPS for documentation

6. Risks & Mitigation Strategies

Risk	Mitigation Strategy
Data may be inconsistent or incomplete	Perform thorough cleaning with fallback values
Tableau Public limits interactivity	Use Story feature and filters creatively
Team may lack Flask deployment experience	Make it optional and focus on Tableau first
Time constraint due to academic deadlines	Weekly task tracking and backup plans

7. Project Deliverables

- Cleaned and decoded dataset
- Python script for preprocessing
- Interactive Tableau dashboard with stories
- Optional Flask-based web view of dashboard
- Final documentation report (PDF/Word)
- Screenshots, visualizations, and GitHub link