Project Design Phase
Problem – Solution Fit

Date	19/06/25
Team ID	LTVIP2025TMID59113
Project Name	Comprehensive Analysis and Dietary Strategies with Tableau: A College Food Choices Case Study
Maximum Marks	2 Marks

Problem – Solution :

Problem:
College students often adopt poor dietary habits due to lack of awareness, accessibility to nutritious food, and minimal real-time feedback about their consumption patterns. This can result in nutritional deficiencies, reduced academic performance, and long-term health complications. Institutions lack a centralized, data-driven mechanism to monitor, analyze, and respond to these dietary trends in real time.

Solution:
This project proposes a Tableau-powered platform that visualizes dietary data, exercise patterns, and health perceptions among students. Through real-time data collection, transformation, and interactive visual analytics, stakeholders can proactively identify health risks, monitor student nutrition trends, and implement targeted interventions. Predictive models enable personalized dietary planning, fostering better student health and academic success through data-driven strategies.

Purpose:

- Understand the current dietary behavior and health challenges among college students.

- Deliver personalized, real-time nutritional insights and trends using Tableau dashboards.

- Promote evidence-based decisions for meal planning, health services, and awareness campaigns.

- Enable educational institutions to respond proactively to deficiencies or risky trends.

- Support students with tailored dietary suggestions to enhance overall well-being and academic outcomes.

Template:

Comprehensive Analysis and Dietary Strategies with Tableau

A College Food Choices Case Study - Revolutionizing dietary data visualization to drive informed decision-making and enhance student health and academic performance

1 KEY STAKEHOLDERS (KS)

- University administration and health services
- Student nutrition counselors and dietitians
- Cafeteria and food service management
- Student wellness programs coordinators
- Academic performance tracking departments

2 CURRENT CHALLENGES (CC)

- Limited visibility into student dietary patterns
- Difficulty tracking nutritional intake trends
- Lack of real-time dietary monitoring systems
- Insufficient data for evidence-based nutrition programs
- Poor correlation analysis between diet and academic performance

3 PROJECT TRIGGERS (PT)

- Rising concerns about student health and nutrition
- Need for data-driven dietary intervention strategies
- Growing awareness of diet-academic performance correlation
- University mandate for comprehensive student wellness tracking
- Availability of advanced visualization tools like Tableau

4 USE CASE SCENARIOS (UCS)

- Real-time monitoring of nutritional intake patterns
- Swift response to widespread dietary deficiencies
- Predictive analysis for personalized nutrition plans
- Proactive identification of at-risk student populations
- Evidence-based cafeteria menu optimization

5 TABLEAU SOLUTIONS (TS)

- Interactive dashboards for dietary trend visualization
- Real-time alerts for nutritional intake anomalies
- Predictive analytics for health risk assessment
- Comprehensive student dietary profile creation
- Automated reporting for health service interventions

6 EXPECTED BENEFITS (EB)

- Enhanced student health and well-being outcomes
- Improved academic performance through better nutrition
- Reduced healthcare costs through preventive measures
- Data-driven decision making for university policies
- Increased student satisfaction with campus dining

7 KEY DATA INSIGHTS (KDI)

- Dietary pattern correlation with academic performance
- Nutritional deficiency prevalence across demographics
- Seasonal variations in food consumption habits
- Exercise habits impact on dietary choices
- Health perception influence on eating behaviors

8 TARGET OUTCOMES (TO)

- 20% improvement in student nutritional awareness
- 15% increase in healthy food choices on campus
- Reduction in diet-related health issues by 25%
- Enhanced cafeteria menu satisfaction scores
- Establishment of evidence-based nutrition programs

9 IMPLEMENTATION STRATEGY (IS)

- Phase 1: Data collection and Tableau dashboard setup
- Phase 2: Pilot testing with select student groups
- Phase 3: Full deployment across campus
- Phase 4: Training for staff and stakeholders
- Phase 5: Continuous monitoring and optimization