

Project Design Phase Problem – Solution Fit

Date	19 June 2025
Team ID	LTVIP2025TMID59132
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		
<div>1</div> <div>KEY STAKEHOLDERS</div> <div>KS</div> <ul style="list-style-type: none">University administration and health servicesStudent nutrition counselors and dietitiansCafeteria and food service managementStudent wellness programs coordinatorsAcademic performance tracking departments	<div>2</div> <div>CURRENT CHALLENGES</div> <div>CC</div> <ul style="list-style-type: none">Limited visibility into student dietary patternsDifficulty tracking nutritional intake trendsLack of real-time dietary monitoring systemsInsufficient data for evidence-based nutrition programsPoor correlation analysis between diet and academic performance	<div>3</div> <div>PROJECT TRIGGERS</div> <div>PT</div> <ul style="list-style-type: none">Rising concerns about student health and nutritionNeed for data-driven dietary intervention strategiesGrowing awareness of diet-academic performance correlationUniversity mandate for comprehensive student wellness trackingAvailability of advanced visualization tools like Tableau
<div>4</div> <div>USE CASE SCENARIOS</div> <div>UCS</div> <ul style="list-style-type: none">Real-time monitoring of nutritional intake patternsSwift response to widespread dietary deficienciesPredictive analysis for personalized nutrition plansProactive identification of at-risk student populationsEvidence-based cafeteria menu optimization	<div>5</div> <div>TABLEAU SOLUTIONS</div> <div>TS</div> <ul style="list-style-type: none">Interactive dashboards for dietary trend visualizationReal-time alerts for nutritional intake anomaliesPredictive analytics for health risk assessmentComprehensive student dietary profile creationAutomated reporting for health service interventions	<div>6</div> <div>EXPECTED BENEFITS</div> <div>EB</div> <ul style="list-style-type: none">Enhanced student health and well-being outcomesImproved academic performance through better nutritionReduced healthcare costs through preventive measuresData-driven decision making for university policiesIncreased student satisfaction with campus dining
<div>7</div> <div>KEY DATA INSIGHTS</div> <div>KDI</div> <ul style="list-style-type: none">Dietary pattern correlation with academic performanceNutritional deficiency prevalence across demographicsSeasonal variations in food consumption habitsExercise habits impact on dietary choicesHealth perception influence on eating behaviors	<div>8</div> <div>TARGET OUTCOMES</div> <div>TO</div> <ul style="list-style-type: none">20% improvement in student nutritional awareness15% increase in healthy food choices on campusReduction in diet-related health issues by 25%Enhanced cafeteria menu satisfaction scoresEstablishment of evidence-based nutrition programs	<div>9</div> <div>IMPLEMENTATION STRATEGY</div> <div>IS</div> <ul style="list-style-type: none">Phase 1: Data collection and Tableau dashboard setupPhase 2: Pilot testing with select student groupsPhase 3: Full deployment across campusPhase 4: Training for staff and stakeholdersPhase 5: Continuous monitoring and optimization