

Proposed Solution

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

Goal

To identify, analyze, and address college students' food choices and nutritional behavior by combining **empathetic understanding** (qualitative) with **data-driven insights** (quantitative), ultimately proposing **targeted dietary strategies** that are cost-effective, healthy, and practical.

Solution Overview

The proposed solution integrates **data collection**, **empathy mapping**, **visual analysis**, and **strategic recommendations** through an end-to-end framework:

1. **User-Centric Data Collection**
 2. **Empathy Mapping for Behavioral Insight**
 3. **Data Visualization Using Tableau**
 4. **Persona-Based Dietary Strategy Recommendations**
 5. **Deployment via a Simple Web Interface (Optional)**
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Step-by-Step Breakdown

1. Data Collection

- **Tools:** Google Forms, Excel
- **Data Types Collected:**
 - Daily food intake logs
 - Budget allocation for food
 - Physical activity, BMI
 - Emotional eating triggers
 - Survey on preferences and pain points

2. Empathy Mapping

- Develop empathy maps based on survey responses
- Focus on what students **say, think, do, and feel**
- Identify **key behavioral drivers** of unhealthy eating habits

3. Visualization with Tableau

- Import structured data into Tableau
- Create dashboards to visualize:
 - Meal frequency and timing
 - Nutritional intake vs RDA
 - Emotional impact on food choices
 - Budget vs actual food spending

4. Strategic Dietary Recommendations

- Cluster students into personas: "Budget-Conscious," "Stress-Eaters," "Fitness-Focused"
- For each persona:
 - Provide meal plans and snack options
 - Recommend budgeting tools and grocery lists
 - Suggest stress-management strategies like mindful eating
- Use dashboard filters to allow users to explore relevant solutions interactively

5. Optional Web Deployment (For Wider Access)

- Build a Flask-based web portal to:
 - Upload personal food logs
 - View personalized Tableau dashboards
 - Access downloadable meal plans and guides
 - Engage with student wellness blogs or resources

Innovative Elements

- Combines **empathy mapping** with **Tableau analytics**
 - **Data-backed** personalized strategies (not just generic advice)
 - Scalable: Can be extended to other campuses or demographics
 - Offers **interactive dashboards** for student self-exploration
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Outcome of the Proposed Solution

- A clear understanding of the "**why**" **behind food choices** (via empathy)
- A detailed picture of "**what is happening**" (via Tableau)
- Actionable dietary plans that are **cost-effective, time-saving, and health-oriented**
- Improved **student well-being** and **dietary habits**