# Synergizing Cross-Departmental Bio-Optimization Frameworks to Actualize Aspirational Wellness Vectors through Innovative Caloric Recalibration Methodologies and Paradigm-Shifting Nutritional Engagement Strategies in a Dynamic, Future-Proofed Ecosystem of Holistic Health Empowerment[1]

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[1]Optimization of core competencies was achieved through the implementation of next-generation ideation frameworks, facilitated by advanced language models to drive innovation and maximize stakeholder value proposition (Claude 3.5 Sonnet).

# CONTENTS

# CHAPTER 1

# INTRODUCTION

## 1.1 Objective

Our objective is to formulate a linear program to minimize the grocery costs of our group while maintaining nutritional recommendations and preferences. With this information, we will further algorithmically generate a weekly diet for each member based on their needs.

# CHAPTER 2

# METHODOLOGY

## 2.1 Diets

We begin formulating our linear program by agreeing on the dietary restrictions for each group member and their dietary goals[1]:

Table 2.1: Weekly dietary requirements.

| Diets | Damian | Tyler | Jacob |
|---|---|---|---|
| Calories | 2174 | 2350 | 2125 |
| Carbohydrates | 190 | 176 | 186 |
| Protein | 272 | 294 | 266 |
| Fats | 36 | 52 | 35 |

## 2.2 Dataset

We obtained our data by modifying an existing set from Tirthajyoti Sarkar's Optimization-Python project under MIT licensing.

[1] We calculated our dietary requirements using the Stupid Simple Macro Tracker.