

Han Bui (pl8421)  
Nathan Scovis (ji5430)  
CS230-01  
Prof. Lynne Grewe  
Nov 28, 2025

## **Project 4: Entrepreneurism & Ethics**

### **1: Ethical Business Plan**

#### **1.A. Company Name: Calorie Compass**

Calorie Compass is a technology startup focused on helping people understand their nutrition and lifestyle through a mobile application. Our product, the Calorie Compass app, uses data, AI tools, and simple tracking features to support users in building healthier habits at their own pace. Our company treats this product as a real service that aims to make daily wellness easy, accessible, and personalized for people with different goals and experiences.

#### **1.B. Long-Term Vision Statement**

##### **1.B.1 Goals:**

Our goal is to build an app that helps people create healthy eating habits and understand basic nutrition in a simple and supportive way. We want users to keep track of their daily food intake, learn what is inside the meals they eat, and make choices that support their long-term health. With the help of AI and guidance from professional resources, our app aims to give users personalized support that fits their lifestyle. We also want to make sure our app works for people from all backgrounds and food cultures, so everyone can feel included and understood. Our larger goal is not only to help users lose weight, but also to support a healthy environment where people feel balanced, confident, and informed about their daily choices.

##### **1.B.2 Idea Origin:**

The idea for Calorie Compass came from recognizing how many people want to improve their health but often feel overwhelmed by complicated nutrition apps or expensive coaching programs. We also noticed that popular apps mainly focus on Western food and often do not include many dishes from different cultures, which makes tracking inaccurate for many users. We noticed a need for a tool that is simple, transparent, and respectful of user data. From our own experiences trying to balance school, work, and health, we realized there was a need for an app that understands diverse food backgrounds, provides clear guidance, and stays accessible for everyone.

### **1.B.3 Purpose, Mission & Values:**

The purpose of Calorie Compass is to help people understand their nutrition in a simple and supportive way. Our app makes healthy habits easier by letting users track their meals, activity level, and daily progress. We also aim to create a space where users feel safe and confident with how their data is collected and used.

Our mission is to keep the core app free and support the company through in-app ads, while offering paid features like AI recommendations and professional guidance. We want to provide a safe and ethical platform that respects users' choices, protects their data, and supports their health in a balanced and non-pressuring way.

Our values focus on honesty, respect, inclusion, and privacy. We want users from all backgrounds and food cultures to feel welcome. We value transparency in how our AI works and how data is handled. We also care about accessibility, which means keeping essential features free and making premium tools affordable.

### **1.B.4 Key Questions:**

As we develop Calorie Compass, these are the key questions to guide our company.

The first question is: How can we make sure our app encourages healthy habits instead of creating an unhealthy obsession with calorie tracking?

The second question is: How can we design the app to support users with different backgrounds, lifestyles, and dietary needs?

The third question is: How can we use personal data responsibly without invading privacy while still personalizing plans with AI and professional help?

## **1.C. Strategy with Ethical Impacts AND Ethical Safeguards:**

### **OKR 1:**

#### **1.C.1.1 OKR 1 Objective and Key Result:**

To increase the daily meal logging rate by 20% within the next 12 months. This helps users stay consistent with tracking their food and supports more accurate health insights. The key result is a higher percentage of days where users log at least one meal.

#### **1.C.1.2 OKR 1 Metrics and Experiment**

The main metric for this OKR is the daily logging rate, measured by how often users record at least one meal each day. Another metric is average engagement time, which includes looking up calorie information or updating health details.

To test improvements, we will run an A/B experiment with 2,000 users. One group will receive standard push-notification reminders, and the other group will receive personalized reminders. We will compare which method increases logging behavior more effectively.

#### **1.C.1.3 OKR 1 Ethical Impacts/Issues**

A major ethical concern is that increasing engagement may unintentionally push users toward obsessive tracking, stress, guilt, or even disordered eating. Frequent reminders can feel manipulative or addictive. A real example of this harm appears in *Spence v. Meta* (2022) [1], where the court filing states that Meta prioritized engagement over user safety, resulting in emotional and physical harm. There is also a conflict-of-interest risk for the company when higher engagement brings more revenue but may reduce user safety.

#### **1.C.1.4 OKR 1 Ethical Safeguards**

To reduce these risks, we will allow users to fully control how often they receive notifications. Research shows that letting users customize their notification settings reduces overload and improves digital well-being. [2] We will add settings where users can choose reminder frequency or turn them off completely. We will measure the safeguard's success by tracking how many users adjust their notification preferences and by collecting user feedback through surveys to see if they feel less stressed or pressured.

## **OKR 2:**

### **1.C.2.1 OKR 2 Objective and Key Result:**

The objective of OKR 2 is to improve the accuracy of nutrient and calorie tracking in the app. We want to make sure users receive reliable information about what they eat so the app can give healthier and more personalized suggestions.

### **1.C.2.2 OKR 2 Metrics and Experiment:**

We will first need to know exactly what is in food, which can be done at the ingredient level. By having accurate data on all of the ingredients, we will be able to determine the nutritional value of an entire dish or meal. The app will also need to have strong identification abilities (like reverse image search) in order to accurately identify the type of food that the client has. It should also be able to distinguish between similar varieties which may have different uses and nutritional values.

### **1.C.2.3 OKR 2 Ethical Impacts:**

Should this system fail or malfunction, it can have severe effects for the client. Even a small change in calorie intake can greatly impact a person's health, not to mention the risks behind correct nutrient consumption. There are many diseases and conditions associated with mineral or vitamin deficiency, so we must be certain that no mistakes will be made.

We also wish to avoid any conflicts of interest with the AI. One example of a conflict of interest issue in nutritional advice was the 2020 case *California Physicians and Physicians Committee for Responsible Medicine v. USDA*, in which the PCRM alleged that the USDA dietary guidelines promoted the interests of the dairy and meat industries rather than those of the American citizens [3]. Putting business alliances over our clients is something that our company hopes to avoid, in order to improve general health.

### **1.C.2.4 OKR 2 Ethical Safeguards:**

Ultimately, if a client ever feels sick or unwell, they will make decisions for themselves based on medical advice or their own intuition. However, we hope not to reach this scenario. In order to avoid this, extensive testing must be performed to ensure that no mistakes are made. One feature that should also be included is the ability to determine when a portion size has been incorrectly entered, and ask for confirmation.

Another solution is to scan product barcodes to get accurate information. This reduces the company's financial risk, as they are no longer responsible for misidentifying ingredients. In the case of an incorrect barcode, the manufacturer or packaging company can be held criminally negligent while the app can declare the use of Reasonable Care [4]. However, this safeguard does not entirely remove the risk the company runs of inaccurate identification. If the client buys from their grocery store's produce section rather than a pre-made package, there will not be a barcode available, so the app must still be capable of identifying ingredients.

### **OKR 3:**

#### **1.C.3.1 OKR 3 Objective and Key Result**

The goal of this OKR is to make our app more private and more transparent about how we use user data. We want users to trust the app and know exactly how their information is handled. The key result is increasing the number of users who understand our privacy practices.

#### **1.C.3.2 OKR 3 Metric(s) with Experiment(s)**

We will measure success by tracking how many users open the privacy dashboard, how many change their data settings, and how many answer a short privacy question correctly. For the experiment, one group of users will see a simple privacy page with short text, and another group will see the regular long version. We will compare which group understands the information better.

#### **1.C.3.3 OKR 3 Ethical Impacts/Issues**

If users do not understand how their data is used, they may feel unsafe or lose trust in the app. Some users might agree to share information without knowing what it means. There is also a risk that personal data could be misunderstood, misused, or collected in a way users did not expect. Studies confirm that privacy policies are ineffective due to their length and convoluted legal language.[5]

#### **1.C.3.4 OKR 3 Ethical Safeguards**

To reduce these risks, we will add a simple privacy dashboard that shows what data is collected and lets users turn options on or off. We will use short and clear language that is easy for everyone to understand. Users will also be able to delete their data anytime. We will check if this works by seeing how many users open the dashboard or update their settings.

## **2: Cultural Policy**

**2.A. Core Values:** Our company aims to be seen as reliable, trustworthy, and focused on helping people improve their health in a safe way. We want users to feel confident that the information they receive from Calorie Compass is accurate and helpful, and that our app supports them without judgment or pressure. Reliability is one of our core values, which means we work to provide consistent guidance and honest communication. We also value accuracy, so we put effort into checking our nutrition data and improving our AI tools to make sure users get information they can depend on.

Another important value is creating a healthy environment, both for our users and our employees. We want our users to feel supported in their wellness journey, and we want our team members to feel respected, heard, and appreciated. We believe good ideas can come from anyone, so we value openness and collaboration. Our culture encourages employees to share their thoughts, try new ideas, and continue improving the app. By focusing on honesty, health, inclusion, and respect, we want Calorie Compass to reflect a culture that cares about both people's well-being and the quality of the work we deliver.

**2.B.Motivation:** Our company is motivated by the desire to use technology in a helpful and supportive way. We love listening to our users and improving the app based on their needs, because we want Calorie Compass to feel simple, friendly, and easy to use. We also enjoy helping people build healthy habits that fit their daily lives, and we aim to create a tool that supports well-being without adding stress.

At the same time, we are careful about the risks that come with health-related apps. We fear giving wrong nutrition information, because even small mistakes can affect a user's health. We also want to avoid creating features that make people obsessed with weight or tracking. These concerns guide our decisions and remind us to stay balanced, accurate, and responsible in everything we build.

### **2.C. Summary:**

We summarize the company's culture in 4 words:

- Balanced wellness.
- Accurate information.
- Honest data use.
- Support without judgment.

### **3: Ethics Policy**

#### **3.A Core Items:**

##### **Ethical Goal 1: Commitment to improving health**

We want to ensure that Calorie Compass not only lowers its users costs and increases their dietary variety, but also actually improves their health. We intend to have the recommendations reviewed by nutritional advisors during the testing phase. Based on the needs of individual users, we can even help them to push towards their preferred level of health rather than merely maintaining standards.

##### **Ethical Goal 2: Recognizing the global impacts of AI**

The creation of AI systems is very demanding on resources such as energy. The AI used in Calorie Compass will be very specialized and thus will not require as many resources as other AI uses. However, we will still want to compensate for these effects by only using modern energy-efficient processors and using on-site renewable energy (such as solar) to power as much as possible.

##### **Ethical Goal 3: Recognizing the global impacts of food**

Highly processed foods are not only less healthy for those who consume them, they are also less healthy for the planet. These processes waste a lot of energy, water, and food, so we want to make sure to prioritize more basic ingredients. Another issue is the impact of meat consumption (particularly beef in the United States). It is well-known that animals only receive about one tenth of the energy in the food they eat, meaning that eating plants limits the amount of energy wasted. These animals also have other negative effects such as water consumption and environmental impacts. Because of this, it is ethically responsible for us to suggest alternatives that avoid meat.

#### **3.B. Board:**

##### **Board Member 1: AI + Ethical Governance**

**Nick Yaitsky** is a healthcare technology executive and the Chief AI Officer at Wellstar Health System. He has spent many years building digital health platforms, improving patient-care technology, and leading AI projects in large hospital systems. His role also includes setting ethical rules for AI, creating governance policies, and making sure new technologies protect patient privacy and avoid harmful bias. I chose him for the board because he understands both health technology and AI ethics. His experience with

responsible AI and data-safety practices will help Calorie Compass provide safe and trustworthy recommendations to users.

### **Board Member 2: Data Privacy + Health Law**

**Marcy Wilder** is a leading expert in health data privacy and a Partner at Hogan Lovells, where she co-leads the firm's Privacy and Cybersecurity practice. She has worked for many years helping digital health companies protect sensitive user information and follow privacy laws. She also served at the U.S. Department of Health and Human Services, where she helped develop parts of the HIPAA privacy rules. I chose her for the board because she brings strong ethics experience in data protection, user consent, and secure information practices. Her background will help Calorie Compass keep user data safe and handle health information responsibly.

### **Board Member 3: Nutrition + Health Expertise**

**Maya Feller** is a registered dietitian and the founder of Maya Feller Nutrition, where she works with people to improve their health through balanced and realistic eating habits. She has experience helping patients manage diabetes, heart health, and weight by using evidence-based nutrition plans. She is also known for her inclusive approach that respects different cultures and food backgrounds. I chose her for the board because she brings strong nutrition knowledge, real clinical experience, and a focus on healthy daily habits. Her guidance will help Calorie Compass give safe, accurate, and practical food recommendations to users.

### **4: YouTube Presentation - URL**

<https://youtu.be/zAbDu7bTeCA>

### **5: References:**

[1] A. Spence, K. Spence, and J. Spence. *Spence v. Meta Platforms Inc.: Complaint for Damages*. Case No. 3:22-cv-03294. U.S. District Court for the Northern District of California, 2022.

[2] Jaehwan Kim, Sangkeun Park, 2025, *Empowering Individual Preferences in Mobile Notifications: A Balanced Approach to Cognitive Load and Information Needs*. *IEEE Access* 11, 3 (March 2025), Art. No. 3549033. <https://doi.org/10.1109/ACCESS.2025.3549033>



[3] 2020. California Physicians Sue USDA Over Conflicts of Interest Related to the Dietary Guidelines for Americans. Physicians Committee for Responsible Medicine. Retrieved from <https://www.pcrm.org/news/news-releases/california-physicians-sue-usda-over-conflicts-interest-related-dietary>

[4] 2020. Criminal Negligence – *Meaning, Application And Defenses*. Shouse Law Group. Retrieved from <https://www.shouselaw.com/ca/defense/laws/criminal-negligence/>

[5] [1] J. H. Betzing, C. Bartelheimer, and I. Berendes. *The impact of transparency on mobile privacy decision making*. Electronic Markets, vol. 29, no. 4, pp. 617–635, 2019.