

# **Grub Guru - Group 3: Section 8**

## **Executive Summary**

Introducing the Grub Guru, a nutritional App that allows a user to take a photo of their refrigerator and receive a plethora of healthy dishes that they can eat! This virtual companion analyzes the nutritional value of all of the food products a user has and determines the best food combinations to not only design a nutritious, but also delicious meal. Taking the daily nutritional requirements into account, Grub Guru provides its users with a plethora of different meal options suiting whether they desire a sweet, savory, calorie-dense, or simply a convenient, portable meal.

- Goal 1: Assist individuals in meeting their daily nutritional requirements.
- Goal 2: Help people make healthy meals that comply with their budget.
- Goal 3: Inform people about the type of groceries they should prioritize buying.

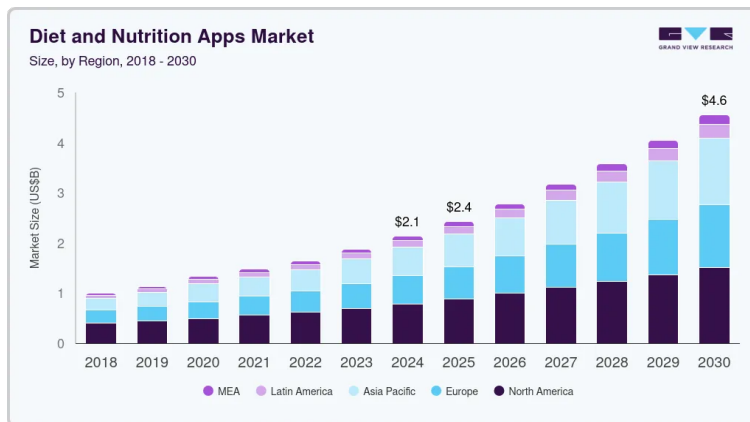
### **❖ Problem Statement**

Millions of people worldwide struggle to develop a healthy diet for every day of the week. This occurs so frequently due to a variety of reasons, such as preoccupation, poverty, physical disabilities, and mental health issues. The world is an intimidating place, making the most essential tasks difficult, but eating is a means of survival and cannot be neglected: so, despite the drawbacks that may occur, everyone deserves the right to eat healthily. It is overwhelming to keep track of your groceries and budget while also ensuring you get your daily intake of carbohydrates, proteins, vitamins, fruits, and vegetables.

As a result, many people have a poor diet, which affects their everyday lives because their bodies' needs are not being met. Poor nutrition has a plethora of drawbacks, such as fatigue, hypothermia, hair loss, irritability, and a weakened immune system, leading to even more illnesses! The chances of developing heart disease, bone disease, and cognitive failure are increased. You are what you eat, so consuming foods that do not cater to the needs of your body decreases the quality of your life.

## ❖ Market Analysis

Grub Guru falls into the category of a diet, nutrition, meal-planning, and fitness app. With such a large scope, Grub Guru has the opportunity to branch out and cater to several audiences. which is a relatively new sub-genre of the app market. Newer concepts such as this have more room to grow and captivate consumers. Since 2020, a larger audience desiring to improve their physical health has formed, causing fitness apps to dominate the app market for the first half of this decade; by proxy, nutritional apps became highly sought after as well, becoming the most popular sub-unit of this genre in the app store. Overall, these apps have generated 200 million users and are most popular among those ages 25-44 and most popular among North Americans, East Asians, and Southeast Asians. Nutritional apps also contain higher retention rates, creating the opportunity to develop more revenue from loyal customers.



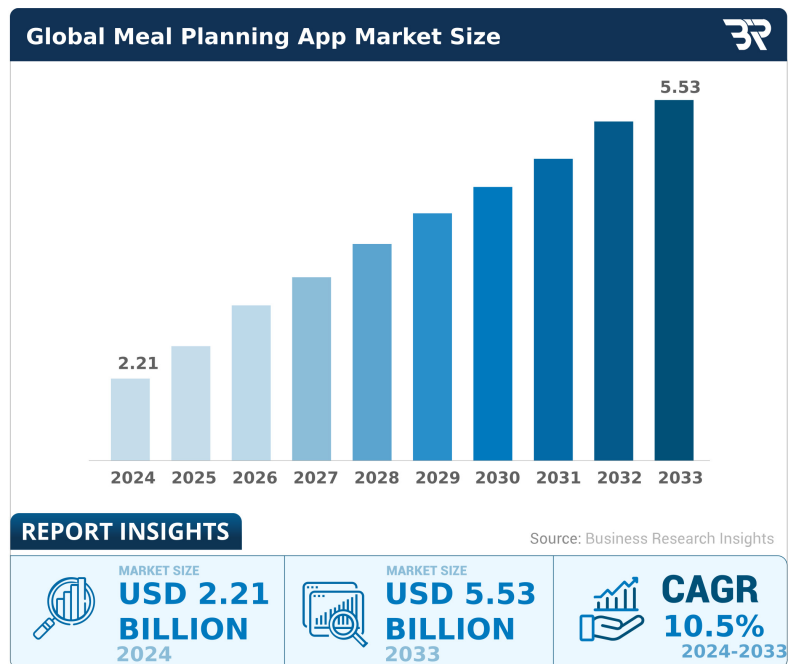
- The revenue of diet and nutrition apps as of the end of 2024 was 2.14 billion USD; it is only expected to grow larger by 2030, and “is expected to reach USD 4.56 billion by 2030, growing at a CAGR of 13.4% from 2025 to 2030” (Grand, 2025).

*Chart showcasing the current and predicted Market Size of Diet and Nutrition apps.*

- Similarly, meal planning apps as of the end of 2024 had an approximate 2.21 billion USD in revenue, and are expected to reach 5.53 billion USD by 2033 (Business, 2024).
- Grub Guru encapsulates both features, leading a user towards making healthier meals with every meal you make, as well as helping you to plan what meals you will have and when, dipping into both markets.

The chart above shows the

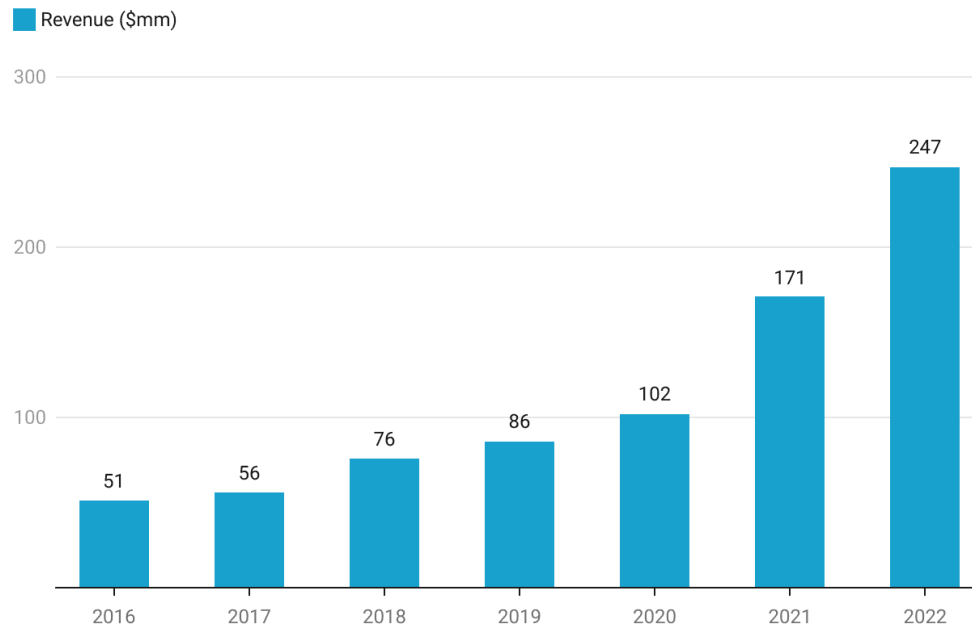
current and predicted Market Size of Meal Planning Apps in Billion\$



- Additionally, it can have a large return on success, as another nutritional and meal planning app, specifically MyFitnessPal, has “made \$247 million in revenue in 2022” (Diet, 2025).

### MyFitnessPal Annual Revenue 2016 to 2022 (\$mm)

Year Measured 2016-2022



Revenue in Million\$

Source: Market.us Media

Revenue of MyFitnessPal in millions in the years 2016 to 2022

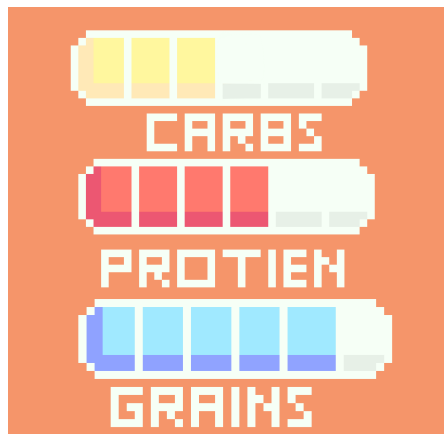
- While MyFitnessPal has had many years of support to reach a 300 million USD revenue, Grub Guru, due to its highly unique features, will stand out from our competition in the market, and is sure to achieve a better than average revenue for a startup, likely having a yearly revenue of 144 thousand USD for our first year, and only growing as the market grows.

## ❖ Product Design

The logo is as seen on the right. Upon opening the app, the user will be greeted with an animated logo and an interactive set of options. The look of the app will be simple, but pleasing to look at, and fun to “explore.” The color palette of the interiors will include red and yellow because these colors are associated with hunger; additionally, a shade of blue is included with the app’s overall aesthetic as it beautifully contrasts with warmer colors. The UI of Grub Guru follows a pixelated theme in order to appeal to a large-scale audience, as video games have a predominant audience among those ages 18-29 and 44+. This overlaps with those who participate in nutrition apps, appealing more deeply to customers.



These engaging visuals also associate eating healthily with having fun, as if they were playing a game. Studies show that video games garner a feeling of self-determination, are accompanied by the satisfaction of eating healthy, and will overcultivate gratification out of the app. The main camera icon will be placed in the center, along with a radial selection of the other options surrounding it. The app has a built-in AI that can detect food from images and search for possible recipes that can be made from the contents of your fridge.



## ❖ Product Function

- Function 1 - Provides recipes based on both the user's dietary needs and nutritional requirements.
- Function 2 - Design goals ensure the user maintains a sustainable diet.
- Function 3 - Builds communities for those who strive for a healthier lifestyle

There will be a plethora of options available right as the app is opened. On the main menu screen, a user will be greeted with a community tab, recipe book, camera, and personal statistics. The community tab will be a social media center where other users will be able to talk to others about nutritional advice and give feedback that Grub Guru is not yet capable of. With the consent of the users, Grub Guru's AI receives training from these conversations so that it can improve the app's overall performance. In the middle is the camera feature; upon pressing the button, you will open the camera, where the user will then be prompted to take a photo of the refrigerator so that the app learns of the food and ingredients that the user has available. Based on this info, the AI puts together recipes to suit the user's needs. The app uses AI to detect foods in your fridge and to display recipes that you can make with what is in the fridge.

If you have food in a Tupperware or hidden in the back of the fridge, you can choose to either take pictures of every shelf separately or to manually input the food inside the Tupperware. There will be many other buttons for assorted features, such as a recipe book that will remember every recipe that has been made from your fridge, a toggleable current-recipe tab, and a health monitor that tracks the average nutrition of your diet in the shape of a health bar for easy and engaging tracking.

We are aware that different people have different diets based on what their bodies need. So before Grub Guru makes its calculations, it asks the user dietary questions such as whether they are overweight, underweight, attempting to build muscle, have diabetes, and several other integral questions. The AI will take the general nutritional information from these foods and help to make a healthy recipe to try out, or at least the healthiest that it can be, depending on the contents of your fridge. Based on a user's performance, Grub Guru will display the user's daily average nutritional intake each day. If they meet their goal, then the user will receive a congratulations; otherwise, Grub Guru will give the user advice on how to meet their goals.

## ❖ Monetization Strategy

Although the base effect of the app, taking a picture of the fridge, will be free, as this is our main selling point and should be readily available to all users, our other various

features, such as the recipe book and the food health monitor, would be part of a paid subscription tier for more helpful features. The community tab will be free as well; however, if a user frequently participates in discussions with others and agrees to let Grub Guru's AI train off of it, they will receive a discount on the subscription or even get it for free based on their contribution. This data will never be sold and simply contributes to Grub Guru's algorithm. Users also have the option to choose which of their conversations they would wish to provide to Grub Guru.

## ❖ Audience Benefits

The Grub Guru provides benefits for consumers who want healthier lifestyles but struggle with time, planning, or knowledge. Instead of stressing about what to cook, the app does the heavy lifting by analyzing the user's fridge and suggesting the most nutritious meal options. This saves people money by reducing wasted groceries and helps them stay within their budget, while also dissolving away the stress of meal-prepping. Additionally, those with preexisting dietary issues no longer need to worry about whether their meal will harm them, as Grub Guru will take all disabilities, allergies, and diseases into account assisting with an already difficult lifestyle.

Grub Guru can also appeal to those struggling with weight, such as in America, where the overweight population is higher. Obesity is not simply an issue of overindulgence, but of people lacking the resources to locate fulfilling, calorie-dense foods that satisfy their hunger. Empty calories are a big issue in this country, and Grub Guru will remove these kinds of food from the picture so that the user can prioritize taking care of their body with a healthy diet.

## ❖ Product Critique

**Counterarguments and Rebuttals-** We welcome skepticism as it allows us to highlight the strength and thoughtfulness of our design. We have anticipated key concerns and built robust solutions directly into the Grub Guru experience.

**On Camera Accuracy & Hidden Foods:** We understand that photo recognition can sound a little too good to be true. That's why we've built Grub Guru with cutting-edge AI that's trained and improving every single day. And if the camera ever misses something (like that jar hiding in the back of the fridge), adding it

yourself is effortless. Just tap and add, it's that simple. You stay in control, so your food inventory is always complete and accurate.

**On the Reliability of Nutritional Data:** When it comes to health, accuracy matters. That's why Grub Guru never guesses or pulls random info from unreliable sites. Every piece of nutritional data comes directly from trusted, science-backed sources like the USDA's FoodData Central. You can feel confident that the guidance you're getting is real, reliable, and safe.

**On Comparisons to Apps like Supercook:** While apps like Supercook share the goal of reducing food waste, they rely on tedious, manual data entry. This is a significant barrier for many users. Grub Guru's signature "snap and cook" feature is our key innovation. It removes the friction and delivers instant gratification, making it fundamentally faster, more engaging, and more likely to be used consistently. We are not just an alternative; we are the next evolution.

**On Your Privacy:** Your health data is yours. Period. Grub Guru will never sell or share your personal information. Everything is protected with end-to-end encryption, and our privacy policy is simple and transparent. Your journey is private, and we're committed to keeping it that way.

## ❖ Conclusion

Grub Guru isn't trying to reinvent your kitchen; It's simply a companion on your dietary journey. As chaotic as this world is, everyone at least deserves the right to a healthy and fulfilling meal. There are infinite reasons why this cannot be obtained for many people, such as being too busy, disability, poverty, etc, and Grub Guru takes all of these obstacles into account so that everyone can have a meal that suits their needs. Customers will find solace in the fact that snapping a picture of their fridge will provide them with a surplus of recipe ideas, guaranteeing to satisfy what their body needs. No more second-guessing or extra effort, while their health data remains private. It's simply a smarter way to keep track of food and cut down on waste without being forced to sacrifice a significant amount of precious time and money. Grub Guru's ultimate goal is to see every individual with an efficient diet that sets them up for success on a global scale.



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