

<Index of Nature> Group 3

Project Team Members

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1. Executive Summary (Overview)

Index of Nature is a mobile app (iOS/Android) designed to encourage people to embrace a more active and outdoor lifestyle. The app allows users to create customizable avatars that track fitness goals and progress, while also connecting them to the best local outdoor areas for activities such as hiking, running, or biking. Users can accumulate points by using the app, allowing them to purchase cosmetics for their avatars, and compete with others, encouraging them to utilize the app. Users can join community meetups, discover events, and collaborate with others to stay motivated and achieve shared goals. Beyond fitness, Index of Nature enhances the outdoor experience with built-in wildlife recognition features, enabling users to identify animals in their area through photos or sounds. By blending fitness tracking, social connection, and nature exploration, the app creates an engaging way for people to stay healthy and connected with both their community and the natural world.

Special features:

- *Cameras are set up in certain locations with animals, and users can interact with them digitally*
 - *Fitness add-on, goals set to visit certain place(s) to encourage the user to be active for longer*
 - *Social Media Feature - posting and following/friends*
 - *Meet other people! - app tells you other users nearby and encourages you to meet them*
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2. Market Research and Need Justification

Market Research & Strategic Positioning

This analysis outlines the current landscape and future potential for a new gamified health and fitness product. The market for health-related gamification is experiencing significant growth, presenting a valuable opportunity for a new entrant.

Market Trends & Opportunity

The overall trend for gamification in health and fitness products is on the rise, with healthcare providers increasingly viewing it as a valuable tool for personalized treatment. A 2024 report by UCF Healthcare highlights this trend, stating that it is a "valuable strategy in healthcare, as digital health tools seek better ways to keep patients engaged, informed, and motivated. With a market value of \$4.65 billion in 2024 and projected to grow at a 23.0% CAGR through 2030, gamification has become a powerful tool to address the rising burden of lifestyle-related and chronic diseases."

Our application is well-positioned to capitalize on this expanding market. Our self-monitoring features will empower users to track and compare their physical activity, while also helping them discover new ways to get outside. As research suggests, "integrating self-monitoring features (such as tracking steps or logged workouts over time) helps foster habit formation and self-regulation in users." (Sportscience)

Customer & Market Segmentation

B2C Markets

A significant customer need exists within two key demographics: children and young adults.

Children & Adolescents: There is a global concern regarding childhood obesity, with a staggering number of children being overweight. According to the WHO (2024), "In 2024, an estimated 35 million children under the age of 5 years were overweight." This is largely attributed to increasingly sedentary lifestyles and excessive screen time. As a Medline Plus (2025) report notes, "Most American children spend about 3 hours a day watching TV. Added together, all types of screen time can total 5 to 7 hours a day." Our product can help redirect this existing use of technology toward fostering healthy habits and active engagement, moving children away from purely passive entertainment.

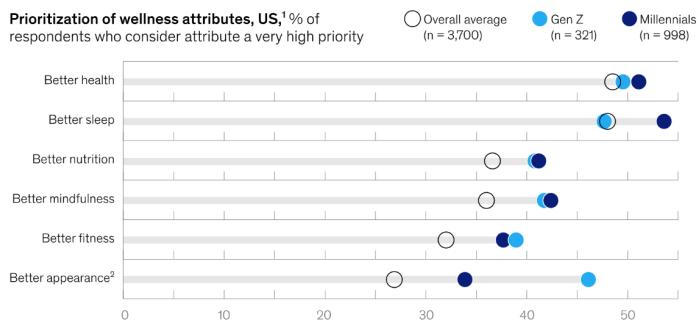
Young Adults (Ages 20-25): This demographic, largely of Generation Z, desires healthy and active lifestyles but often struggles with the motivation to establish them. They have a degree of disposable income and are actively seeking ways to socialize and connect with their peers while building healthy habits. This generation is also particularly receptive to using technology for wellness. Kantar (2025) research reveals a clear generational divide, showing that "More younger people are experiencing improvements in their physical health with the support of smartphones and wearable devices than older generations."

The data further specifies this, revealing that "44% of Gen-Z see improvements in their physical and emotional health when they monitor their health with the support of technology, versus only 37% of Boomers." Gen Z's willingness to invest in digital wellness solutions surpasses that of

Millennials and Boomers, as they prioritize improving their physical appearance. This can be attributed to high exposure to social media platforms and trending social media influencers. Gen Z is also increasingly finding and creating relationships through "second places" like run clubs and gyms. The increased popularity of run clubs among young adults, with events that mix running with social elements like DJs and coffee, has been a major hit in major cities like New York City, San Francisco, and Chicago. This demonstrates the importance Gen Z places on improving their health through community. Furthermore, a traveling advertising executive found successful implementation of "excursion exercise" options for their Generation Z guests, noting that "Gen Z has been interested in excursions that include forest bathing (take a walk on the wild side!), fruit harvesting (a Fuji apple a day)..." (McKinsey). This behavior shows Gen Z's desire to explore and experience while traveling, combining it with physical fitness, which is a key element our app provides to get users out in nature.

Exhibit 1

Gen Zers rank appearance among their top three wellness concerns, but mindfulness makes the cut for millennials.



¹Question: How high of a priority do you place on the following attributes?

²Through skin care, makeup, and other cosmetic enhancements.

Source: McKinsey Future of Wellness Survey, Nov 2024

McKinsey & Company

B2B Markets

The product also has a strong potential for B2B partnerships with pediatric and dietitian offices. With the increasing adoption of technology in healthcare, and specifically the use of AI and interactive tools to track health metrics, our product can serve as a powerful addition to professional care. It can provide detailed, real-time insights to help pediatricians and dietitians create and monitor preventative care plans for their patients. The quote "While this trend is more clinician-facing, its impact on gamification is indirect but consequential. Multimodal LLMs enable more robust backend systems that personalize the patient experience. For instance, a clinician could utilize insights from these tools to create custom, gamified care plans that precisely align with the patient's needs and medical history" highlights the potential for our product to be

seamlessly integrated into existing professional care models, enhancing patient adherence and outcomes.

Competitive Analysis

The market is crowded with both direct competitors, such as running and cycling apps, and indirect competitors that focus on outdoor exploration. Our analysis reveals that existing solutions often target a specific niche or excel in a single feature, leaving significant gaps for a new product to fill.

- **Strava:** A social platform for serious athletes, its strength lies in community features like leaderboards and challenges. However, its low premium subscription rate (only 2% of users) suggests a limited ability to monetize its core features, relying instead on sponsored content and data sales. This also points to a highly specific, niche audience.
- **AllTrails:** A great tool for outdoor enthusiasts, it helps users discover and review trails. While it has a freemium model, its primary function is discovery rather than a structured fitness program or a deep social experience.
- **Seek by iNaturalist:** This app gamifies nature exploration for children but lacks a strong focus on physical activity, and its design is not built for a deep, personalized experience or data collection, which is a key part of our B2B strategy.
- **Couch to 5K (C25K):** A well-known beginner running app, it has a high dropout rate of over 70%. Its rigid, fast-paced program and lack of a strength/mobility component lead to user frustration and potential for injury, revealing a significant gap in providing a supportive and psychologically accessible starting point for true beginners.
- **Zombies, Run!:** This app successfully uses a compelling narrative to motivate users, transforming a chore into an adventure. However, a major flaw is its reported instability, with a user stating the app crashes "super irritating," which can be a strong deterrent to sustained use.
- **Joyn / Big Fit Girl:** These platforms stand out for their inclusive, body-positive philosophy. However, their long-term business model appears unstable, as research notes indicate Joyn had its funding cut, suggesting that a strong community and philosophy alone are not sufficient for market longevity without a sustainable revenue model.
- **Caliber / Future:** These apps represent the high-end, personalized coaching segment. While they offer exceptional, data-driven support and accountability, their high cost makes them inaccessible to the average user, creating a barrier to entry for a large portion of the market.
- **Sworkit:** This app offers a customizable, low-cost alternative to one-on-one coaching. While it has a large library of workouts, it lacks the deep, individualized programming and intrinsic or extrinsic motivation provided by either a human coach or a truly gamified system.

Our Product's Unique Value Proposition

Our product will distinguish itself by addressing the critical gaps in the market, focusing on two distinct children and young adults.

- **For Children:** Unlike competitors, our product will have a deeply interactive and personalized design. Children can create their own avatars and build a virtual world that evolves as they become more physically active. The app will feature an educational component that incentivizes continued use by teaching them about healthy habits in a fun, natural way, making it more effective than purely educational apps.
- **For Adults:** We will target young adults (Gen Z) by creating an app that is a hub for social connection. Recognizing their tendency to view fitness as a social activity, our app will facilitate community building, allowing users to connect with others who are either just starting their fitness journey or have been at it for years. This is a crucial differentiator, as Kantar (2025) notes that "78% of health-conscious consumers believe that the social and community components embedded in fitness apps make it easier to practice healthy habits." Our product will be designed to foster this community, making exercise a personalized and social experience, taking users out on excursions from traditional gym experience, and can accommodate and create a community for all levels of physical fitness needs.

3. Product Description

Core Features:

- **Animal Locator:** We use already existing sources to help us locate natural habitats of animals while we also use our own technology and crowdsourcing to gain more information.
- **Gamifying Nature:** Our app implements a point system with helping nature, these points are later used for cosmetics or merchandise revolving around the app. You can get these points through various means such as going on hikes, feeding animals, or cleaning trash.
- **Adding Extra additions with Cosmetics:** Lootboxes will be a system where instead of spending your points straight on stuff you want you can risk your points and try to get rarer cosmetics than you would normally be able to get!
- **Animal Finding Collection:** Each time you find or run into an animal, you can use your points to then buy that animal as an Avatar! If you find different species of birds or animals like deer or foxes, you can get those as Avatars!

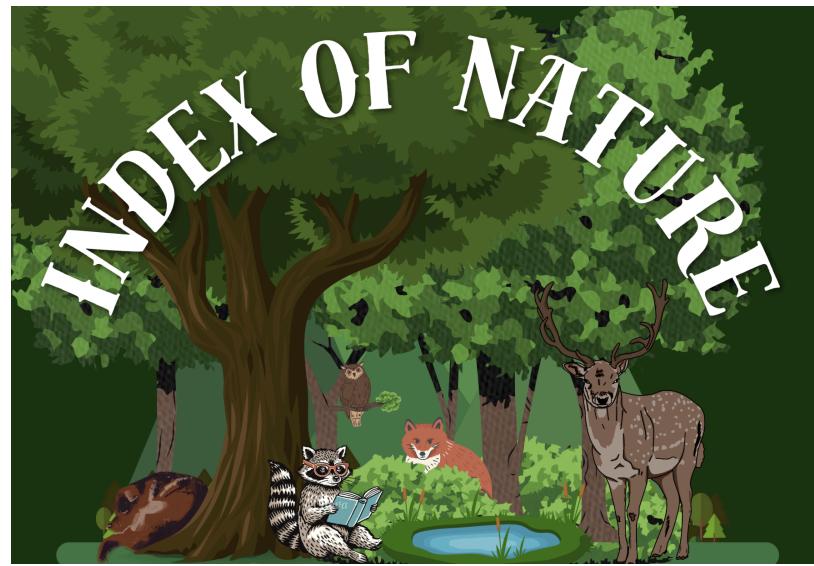
- **Health Tracker:** We use the user's health to help us provide a better experience for that user by giving them hikes or adventures to benefit their own health and progressively want to continue your exercise in the wild!
- **Kid friendly mode:** Our app allows users to turn on Kid Friendly Mode, a way for children to use the app without having them go on dangerous or complex hikes and instead giving tasks like cleaning trash or going in the backyard and watering the plants.
- **Viewing Mode:** For people who want to watch animals live or gain research on them they can watch the cameras that we have set up around nature to study and view animals in their natural habitat without having to go in person.
- **Leaderboard System:** Ever want to show off how many points you've gotten from helping the environment and trying to beat your friends and gain bragging rights? Well get the most points and you can see how many people around you also have on the Leaderboard!
- **Difficulty System:** We added a difficulty leveling system so that brand new people or younger people won't be instantly trying to do very dangerous things. You must work your way up to doing dangerous tasks so that we know that you are well-prepared before you do anything new! This means you may not be able to instantly feed animals and instead spend your time birdwatching or cleaning trash safely!

User Interface:

- The user interface would be a simple nature-themed interface that allows the users to already feel and enjoy the natural environment and then easily sign up right after.

Technological Innovations:

- **Cameras:** We have set up a large amount of cameras that allow us to capture footage and get our own research revolving around the animals we want to study.



HOME

ANIMALS NEAR ME

RECORDS

Animal	Difficulty	Location	Food
Raccoon	★★★★★	Dumpsters	Hot Dogs
Owl	★★★★★	Treetops	Live Mice
Deer	★★★★★	Dense Forest	Apples
Ostrich	★★★★★	Savannas	Flowers
Fox	★★★★★	Grassland	Rabbits
Wolf	★★★★★	Rocky Forests	Deer

HOME

RECORDS

ANIMALS NEAR ME

COMPLETED TASKS!

WENT ON A HIKE
50 POINTS

FED TWO RACCOONS
150 POINTS

CLEANED UP TRASH
AROUND THE PARK
50 POINTS

SPOTTED AN OWL NEST
100 POINTS

SPENT A FULL TWELVE
HOURS OUTSIDE IN
NATURE
500 POINTS

COSMETICS SHOP

DRESS YOUR AVATAR

COSTUMES FOR SALE!
300 POINTS!

4. Possible Issues and Counterarguments

- How will the animals be ethically tracked?
 - *Through the use of various trail cameras and other users encountering them
- How does this app differ from other similar apps?
 - *This app allows you to view nearby nature trails and track nearby/local wildlife on said trails
- How can you prevent animals from being harmed, intentionally or unintentionally, by users of the app?
 - *Have park rangers patrol the area as well as listing contacts to them within the app, with more rangers patrolling trails or areas with possible dangerous wildlife
 - *Reward users for picking up garbage they may come across through in-app currency
 - *Make sure that there are plenty of garbage cans throughout the trail
 - *Cameras would record any malicious activity
- How will this be funded?
 - *Funded through advertisements, which would appear over a set amount of time, as well as add a paid option to get rid of ads; They would mostly be animal-themed, like from zoos
 - *The app allows users to donate funds toward both the app and cleaning the environment
 - *
- How can you prevent users of the app from being harmed by the animals?
 - *The app will provide information to users regarding how to safely handle situations with certain animals that may be in their area or that they want to see and recommend equipment that you should bring (ex. Bear spray)
 - *The app will also have an SOS feature that will alert the Park Rangers on duty to their location
 - *The app allows you to choose the animals you want to feed based on how safe they are and warns you if animals are potentially dangerous

5. Conclusion and Recommendations

In the modern day, plenty of people spend too long indoors. Many of those people want to step outside, but they need a good reason to. Index of Nature aims to help those people by providing them with locations of animals, and information on how to feed them. Index of Nature provides users with opportunities, encouraging them to go outside and have fun, while simultaneously promoting healthy outdoors habits by incorporating fitness into its interface. Index of Nature is also a social tool for meeting other people, by alerting users when other users are nearby. This app should be developed because it will help people have fun outdoors, create consistent healthy habits, and make lasting friendships.

6. Appendix

- *All team members will edit this section.*
- Properly cite your sources!
- Additional data, charts, or research materials can be included here to support the proposal.

Work Cited:

<https://www.who.int/news-room/fact-sheets/detail/obesity-and-overweight>

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-Images were made with: [Canva](#)