SE HACKATHON

2024

PROBLEM STATEMENTS

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READY. SET. CODE

App Development

PS 1: A Comprehensive Mental Health Solution for Suicide Prevention and Mental Well-Being

Objective:

In today's society, mental health issues such as anxiety, depression, and suicidal thoughts are alarmingly prevalent yet frequently overlooked due to persistent stigma and a significant lack of accessible and reliable resources. Many individuals suffer in silence, without adequate support, understanding, or guidance, which can lead to potentially devastating consequences for their well-being.

Key Features:

1. A mood and sleep tracker to assist users in monitoring their well-being and identifying trends in their mental health.
2. Round-the-clock support through an advanced chatbot, designed to provide immediate assistance and direct access to essential resources.
3. Comprehensive suicide awareness education to empower users with the knowledge to recognize warning signs and the confidence to seek timely help.
4. Community network to reduce the stigma associated with mental health conditions by fostering mutual interactions.
5. A readily accessible directory of local therapists and support groups to facilitate prompt and effective intervention.
6. Practical guidance for friends and family on how to provide supportive and effective care to their loved ones.

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App Development

PS 2: A digital solution for Modern Pet Owners

Objective:

In today's fast-paced environment, pet owners face a myriad of challenges that can impact the well-being and happiness of their furry friends. From managing health care and nutrition to ensuring appropriate socialization and exercise, the responsibilities can be overwhelming. To address these issues, our goal is to develop an innovative application designed to simplify and enhance the pet ownership experience.

Key Features:

1. Access to comprehensive resources and tips for pet care, training, and health to ensure your pets are well-cared for and healthy.
2. Connect with other pet owners in your community to arrange playdates, seek advice, or share experiences with individuals who share your passion for pets.
3. Easily schedule and manage veterinary appointments, vaccinations, and routine check-ups to ensure your pets receive essential healthcare services.
4. Streamline the process of adopting a pet from shelters or rescue organizations, making it less time-consuming and more efficient, thereby encouraging more adoptions and helping more animals find loving homes.
5. Keep track of pet-friendly restaurants, parks, and other recreational locations in your area, making it easier to include your pets in your daily activities and outings.

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Web Development

PS 3: Creating a Study Buddy Platform for Academic Collaboration

Objective:

On college campuses, students often struggle with connecting with peers, effective collaboration, and academic organization. These challenges can hinder their educational experience and social integration, leading to potential isolation and decreased productivity.

Key Features:

1. Users can create profiles highlighting their academic interests, courses, and availability. They can also indicate their preferred study methods and goals.
2. Students can search for and connect with peers who share similar academic interests, courses, or study goals. They can send friend requests, join study groups, and message each other for collaboration.
3. A feature allowing students to create and collaborate on shared notes for their courses. Users can contribute to and edit notes in real-time.
4. A platform for students to upload and download helpful resources such as study guides, lecture notes, practice exams, and useful websites.
5. Users can set personalized study goals, such as completing assignments, reading chapters, or mastering specific topics. They can track their progress, receive reminders, and celebrate milestones along the way.

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Web Development

PS 4: Empowering Farmers with Digital Marketing and Community Engagement

Objective:

In the agricultural industry, farmers frequently encounter substantial challenges when it comes to marketing their produce effectively. These obstacles include complexities in reaching broader markets, fluctuations in market demand, and a lack of necessary infrastructure to store and transport goods efficiently. As a result, farmers often experience inefficiencies that lead to reduced profits and wasted produce.

Key Objective:

1. Farmers can create personalized e-stores showcasing their produce, including fruits, vegetables, dairy products, meats, and more. They can upload product descriptions, photos, prices, and availability.
2. Connecting farmers with financial institutions and government programs that offer grants, and subsidies to support farmers.
3. Farmers can offer discounts, promotions, loyalty rewards, and bundle deals to attract customers and encourage repeat business.
4. Community engagement by facilitating direct communication between farmers and consumers. Users can leave reviews, ratings, and feedback, fostering trust and transparency in the agricultural supply chain.
5. A dedicated section for organic fruits and vegetables, highlighting the benefits of organic farming practices and providing information on certification standards and sustainability.

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READY. SET. CODE

AI/ML

PS 5: Fashion Recommendation System for E-commerce Platforms

Objective:

The idea is to develop a basic yet innovative fashion recommendation system for an e-commerce platform similar to H&M or Myntra. The system should be able to intelligently suggest fashion items to users based on their inputs and past purchasing history.

Key Features:

1. Users can input their preferred type of fashion item (e.g., shirts, tops, pants, shoes, accessories). Additional filters for budget and color preference should be incorporated to refine the recommendations.
2. The system should suggest complementary items to the user. For example, if a user is looking at a pair of trousers, the system could recommend a matching shirt and shoes that complete an outfit.
3. When viewing a specific item, users should be shown similar items that match the style, color, or category of the viewed item. This could help users explore more options within their style preferences.
4. The system should analyze the user's past purchases to tailor the recommendations. For example, if a user frequently buys casual wear, the system might prioritize showing more casual items.

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AI/ML

PS 6: AI-Powered Daily Meal Plan Generator

Objective:

This hackathon challenges participants to create an intelligent meal plan generator that tailors daily eating schedules to individual needs and preferences. The system should consider the user's mood, available ingredients, caloric goals, and specific medical or dietary requirements. The goal is to enhance personal health and convenience through customized nutrition planning.

Key Features:

1. The application must generate meal plans that include breakfast, brunch, lunch and dinner, ensuring a balanced distribution of nutrients throughout the day.
2. Users should be able to request substitute items for any suggested meal component. The system should provide alternatives that match the original item's nutritional value and adhere to the user's dietary restrictions.
3. The system must allow users to specify particular dietary wishes or needs, such as including a cup of tea or incorporating a specific fruit like mango into the day's meal plan.
4. Alongside meal planning, the system should recommend a daily water intake based on the user's body weight, activity level, and other health factors, encouraging proper hydration.
5. Users must be able to input any food allergies or specific conditions such as lactose intolerance or limited dairy consumption. The meal plans should respect these inputs, avoiding allergens and respecting dietary limits.