SPACERS HACK-CONF 2023



# IDEA BANK

Our Idea Bank contains several hackathon themes that we expect all interested teams to pick from.

Rule 1: Pick one theme.

Rule 2: Ensure that you understand the problem

you are required to solve.

Rule 3: Submit your MVP promptly!

# SPACERS HACK CONF IDEA BANK

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### ABOUT THE IDEA BANK

The Spacers Hack Conf 2023 Idea Bank contains a list of hackathon themes specially curated by the Code Space Team. We expect each hackathon team to carefully review the themes before settling for what best suits the team's size, strength and capability.

Important things to note are the functional consideration, judging criteria, and more importantly, the deadline for submission of code. Remember that this is a hackathon, and the review must take place within a specified period. Your adherence to our policy will ensure the smooth flow of the process.

# Innovation in Health Management System Dashboard Setup

**OBJECTIVE:** The objective of this hackathon is to foster innovation in designing and developing a cutting-edge Health Management System Dashboard. Participants are encouraged to create a user-friendly, efficient, and technologically advanced dashboard that revolutionizes how healthcare professionals manage appointments, track key performance indicators, communicate with users, and monitor licenses. The ultimate goal of this hackathon is to produce a forward-thinking and transformative Health Management System Dashboard that addresses the challenges of modern healthcare.

#### **FUNCTIONAL CONSIDERATIONS**

- User Experience and Interface: How can the dashboard's user interface be innovated to ensure seamless navigation, intuitive design, and optimal user experience for healthcare administrators, doctors, and patients?
- How can innovative automated systems, such as intelligent appointment tracking, smart notifications, and automated license management, be implemented to streamline healthcare operations?
- How can the integration of emerging technologies, such as AI, machine learning, or natural language processing, enhance the dashboard's capabilities and efficiency?
- What accessibility features can be innovated to ensure the dashboard caters to diverse user needs, including those with disabilities or language barriers?
- What innovative security measures and compliance solutions can be proposed to safeguard sensitive patient data and ensure adherence to healthcare industry regulations?

**DURATION:** The pre-hackathon week commences from Saturday, October 14 to Wednesday, October 25, 2023.

**TEAMS:** Participants can form teams of up to five members. Individuals with diverse skills, including developers, designers, digital marketers, copywriters, and project managers, are encouraged to participate and form cross-functional teams.

**TECHNOLOGIES:** Participants can use any web development technologies and frameworks to build the dashboard. Suitable technologies may include HTML, CSS, JavaScript, React, Angular, Vue.js, Node.js, Express.js, and any other relevant tools. For database management, participants must use Couchbase.

#### JUDGING CRITERIA

- **Functionality:** How well does the dashboard meet the functional requirements outlined above?
- **User Experience:** Is the dashboard intuitive, user-friendly, and visually appealing?

- **Innovation:** Are there any unique features or creative solutions implemented in the dashboard?
- **Technical Proficiency:** How well do the participants leverage various technologies to develop the dashboard?
- **Presentation:** How effectively do the teams present their dashboard and its features during the final pitch?

**SUBMISSION OF CODE:** All participants will be required to submit their codes on Wednesday, October 25th by 7:00 pm. Late entries will be immediately disqualified.

# Innovation in User Ratings and Feedback for Real Estate Agents and Platforms

**OBJECTIVE:** The objective of this hackathon is to foster innovation in user ratings and feedback systems for real estate agents and platforms. Participants will be tasked with creating cutting-edge solutions that enhance the transparency, reliability, and effectiveness of user ratings and feedback in the real estate industry.

**BACKGROUND:** The real estate industry heavily relies on the trust and satisfaction of its clients, both buyers and sellers. User ratings and feedback play a crucial role in helping potential clients make informed decisions about real estate agents. However, existing rating systems may have limitations in accurately capturing the quality of services and experiences. This hackathon aims to explore creative approaches to improving and optimizing user ratings and feedback mechanisms.

#### **FUNCTIONAL CONSIDERATION:**

- How can we develop a real-time feedback system that allows users to provide instantaneous feedback after a property viewing or interaction with a real estate agent?
- How can we create a mechanism that transforms user feedback into actionable insights for real estate agents and platforms, helping them identify areas for improvement and enhance their services?
- What incentive mechanisms can be designed to encourage users to provide honest and comprehensive feedback, ensuring a robust and diverse database of ratings?
- How can sentiment analysis techniques be implemented to extract valuable insights from user comments and reviews, enabling a deeper understanding of client satisfaction?
- What solutions can be developed to prioritize data privacy and security, ensuring that user information and feedback are handled responsibly and in compliance with regulations?
- How can we create visually appealing and informative data visualizations to represent user ratings and feedback, enabling users to make informed decisions effortlessly?

**DURATION:** The pre-hackathon week commences from Saturday, October 14 to Wednesday, October 25, 2023.

**TEAMS:** Participants can form teams of up to five members. Individuals with diverse skills, including developers, designers, digital marketers, copywriters, and project managers, are encouraged to participate and form cross-functional teams.

**TECHNOLOGIES:** Participants can use any web development technologies and frameworks to build the dashboard. Suitable technologies may include HTML, CSS, JavaScript, React, Angular, Vue.js, Node.js, Express.js, and any other relevant tools. For database management, participants must use Couchbase.

#### **JUDGING CRITERIA**

- Innovation and Creativity: How unique and creative is the approach in addressing challenges related to user ratings and feedback in the real estate domain?
- Impact and User Experience: To what extent does the solution improve the user experience for clients, real estate agents, and platforms?
- Technical Execution: How effectively is the solution implemented from a technical standpoint, including functionality, reliability, and scalability?
- Data Analytics and Insights: How well does the solution analyze user feedback and provide actionable insights for real estate agents and platforms?
- Data Privacy and Security: How well does the solution address data privacy and security concerns in handling user information and feedback?
- Presentation & Communication: How effectively do the participants present their solutions, showcasing the value and potential impact of their innovations?

**SUBMISSION OF CODE:** All participants will be required to submit their codes on Wednesday, October 25th by 7:00 pm. Late entries will be immediately disqualified.

# Innovation in Chat Box/Symptoms Tracker/Support Ticketing

**OBJECTIVE:** The primary objective of this hackathon is to foster the development of an innovative and comprehensive Chat Box, Symptoms Tracker, and Support Ticketing system tailored for hospitals. The goal is to create a user-friendly and efficient platform that empowers patients to interact seamlessly with a chatbot, enabling them to determine the specific medical help they require and efficiently track their symptoms. The chatbot will provide personalized and accurate recommendations based on the patient's symptoms and tracking data, while the support ticketing system will ensure timely and effective escalation of issues beyond the chatbot's capabilities.

**BACKGROUND:** Hospitals often encounter challenges in providing efficient and personalized medical assistance to patients seeking help through various digital channels. This hackathon seeks to address this issue by encouraging participants to create a cohesive system that combines cutting-edge chatbot technology, a reliable symptoms tracker, and a robust support ticketing mechanism. The end product should prioritize user-friendliness, data accuracy, and real-time responsiveness while ensuring a seamless patient experience.

#### **FUNCTIONAL CONSIDERATION**

- How can we create a user-friendly chat box interface that allows patients to interact with the chatbot when they visit the hospital's website or landing page?
- How can we develop a chatbot with a simple and intuitive conversation flow that accurately determines the kind of medical help the patient requires based on their symptoms and queries?
- What system can be implemented to allow patients to track their symptoms over time, enabling them to provide relevant information to the chatbot for accurate recommendations?
- How can we develop an algorithm within the chatbot to provide appropriate recommendations or next steps based on the patient's symptoms and tracking data?
- How can a support ticketing system be integrated to allow patients to escalate their issues beyond the chatbot's capabilities, ensuring timely assistance from hospital representatives?

**DURATION:** The pre-hackathon week commences from Saturday, October 14 to Wednesday, October 25, 2023.

**TEAMS:** Participants can form teams of up to five members. Individuals with diverse skills, including developers, designers, digital marketers, copywriters, and project managers, are encouraged to participate and form cross-functional teams.

**TECHNOLOGIES:** Participants can use any web development technologies and frameworks to build the dashboard. Suitable technologies may include HTML, CSS, JavaScript, React, Angular, Vue.js, Node.js, Express.js, and any other relevant tools. For database management, participants must use Couchbase.

#### JUDGING CRITERIA

- Functionality: How well does the chat box, symptoms tracker, and support ticketing system meet the functional requirements outlined above?
- User Experience: Is the system user-friendly, intuitive, and responsive, providing a seamless experience for patients seeking medical help?
- Innovation: Are there any unique or creative features in the chat box and symptoms tracking system that enhance its effectiveness?
- Technical Execution: How well is the system implemented from a technical standpoint, including functionality, reliability, and scalability?
- Recommendation Accuracy: How accurate and relevant are the recommendations provided by the chatbot based on the patient's symptoms and tracking data?
- Presentation and Communication: How effectively do the participants present their solutions, showcasing the value and potential impact of their innovations?

**SUBMISSION OF CODE:** All participants will be required to submit their codes on

# Web3 Native Ad

**OBJECTIVE:** The primary objective of this hackathon is to create an innovative and cuttingedge Web3-native Ad platform that leverages on-chain data to deliver targeted advertisements without the use of tracking and cookies. Participants will be challenged to develop a revolutionary ad platform that not only respects user privacy but also harnesses the full potential of blockchain technology to empower advertisers with highly effective targeting capabilities.

**BACKGROUND:** Traditional digital advertising often relies on intrusive tracking mechanisms and cookies to deliver targeted ads, compromising user privacy and data security. This hackathon aims to disrupt the status quo by encouraging participants to explore novel approaches to advertisement targeting, utilizing on-chain data sourced from the blockchain ecosystem. The ad platform should embody the principles of Web3, focusing on decentralization, transparency, and user empowerment.

#### **FUNCTIONAL CONSIDERATIONS**

- How can we create a sophisticated system that taps into on-chain data to gather relevant information about users and their preferences, facilitating accurate ad targeting without compromising privacy?
- How can we build an ad platform that strictly adheres to user privacy principles, ensuring
  that no personal data or browsing history is collected or stored, and all interactions are
  conducted with the utmost security?
- What essential Web3 components such as Ethereum, IPFS, smart contracts, and blockchain oracles can be integrated into the ad platform to create a truly native and decentralized advertising ecosystem?
- How can intelligent algorithms and machine learning models be implemented to analyze on-chain data and deliver precisely targeted advertisements, maximizing relevance and engagement?
- How can we design an intuitive and user-centric consent management mechanism that empowers users to control their data and opt-in or opt-out of targeted advertisements?

**DURATION:** The pre-hackathon week commences from Saturday, October 14 to Wednesday, October 25, 2023.

**TEAMS:** Participants can form teams of up to five members. Individuals with diverse skills, including developers, designers, digital marketers, copywriters, and project managers, are encouraged to participate and form cross-functional teams.

**TECHNOLOGIES:** Participants can use any web development technologies and frameworks to build the dashboard. Suitable technologies may include HTML, CSS, JavaScript, React, Angular, Vue.js, Node.js, Express.js, and any other relevant tools. For database management, participants must use Couchbase.

#### **JUDGING CRITERIA**

- Innovation: How novel and groundbreaking is the Web3 native ad platform in utilizing on-chain data for targeted ads without tracking?
- Privacy: How effectively does the platform uphold user privacy, ensuring that no tracking or personal data is collected?
- Functionality: How well does the ad platform deliver targeted ads based on on-chain data, while maintaining a smooth user experience?
- Technical Proficiency: How well is the Web3 technology, smart contracts, and blockchain utilized in building the platform?
- User Experience: Is the user interface intuitive, engaging, and accessible for users with varying levels of technical expertise?

**SUBMISSION OF CODE:** All participants will be required to submit their codes on Wednesday, October 25th by 7:00 pm. Late entries will be immediately disqualified.

# **Embracing Smart Contracts and Blockchain for Innovative Gameplay**

Objective: To explore the limitless potential of on-chain games, where the entire game state and logic are stored on the blockchain using smart contracts. Participants will be challenged to create new and revolutionary gameplay possibilities by leveraging the unique features of smart contract-based players, trustless collaboration, and game mods built by third-party developers without fear of deplatforming.

#### **FUNCTIONAL CONSIDERATIONS**

- How can we develop intelligent and autonomous smart contract-based players that can compete with each other and human players and are capable of following complex rules and strategies to enhance gameplay challenges?
- What mechanisms can be implemented for trustless collaboration between players via smart contracts, ensuring transparency and immutability to securely execute agreed-upon transactions without fear of cheating or scams?
- How can we create an open ecosystem that allows third-party developers to build game mods without concerns of deplatforming, enabling the modification of game maps, enemies, weapons, and other elements using smart contracts?

**DURATION:** The pre-hackathon week commences from Saturday, October 14 to Wednesday, October 25, 2023.

**TEAMS:** Participants can form teams of up to five members. Individuals with diverse skills, including blockchain developers, game designers, smart contract programmers, digital marketers, copywriters, and project managers, are encouraged to participate and form crossfunctional teams.

**TECHNOLOGIES:** Participants are encouraged to utilize blockchain technologies, such as Ethereum, Solidity for smart contracts, IPFS for decentralized storage, and any other relevant tools and frameworks to build their on-chain games. For database management, participants must use Couchbase.

#### **JUDGING CRITERIA**

- Innovation and Creativity: How innovative are the on-chain games in using smart contracts for intelligent players, trustless collaboration, and game modding?
- Functionality and Gameplay: How well do the on-chain games function in terms of gameplay mechanics, smoothness, and user experience?
- Smart Contract Implementation: How effectively are smart contracts integrated to support smart contract-based players and trustless collaboration?

- Decentralization and Transparency: How well do the projects embody the principles of decentralization and transparency inherent to blockchain technology?
- User Engagement: How engaging are the on-chain games for both players and developers?
- Presentation and Demonstration: How well do participants showcase the unique features and gameplay possibilities of their on-chain games during their presentations?

**SUBMISSION OF CODE:** All participants will be required to submit their codes on Wednesday, October 25th by 7:00 pm. Late entries will be immediately disqualified.

# Web3 Social Platform Data Analysis

Objective: To analyze the data generated by users while engaging on Web3 social platforms. Participants will be tasked with categorizing and interpreting the data into three components: setting up user profiles, following content creators, and creating content. The goal is to gain valuable insights from the data that can inform improvements, enhance user experiences, and drive innovation on Web3 social platforms.

#### FUNCTIONAL REQUIREMENTS

- How can participants categorize and organize the user-generated data into three essential components: setting up user profiles, following content creators, and creating content on Web3 social platforms?
- How can participants conduct in-depth data analysis and interpretation to derive valuable insights about user preferences, behavior patterns, and interactions within Web3 social platforms?
- What actionable recommendations can participants propose based on data analysis findings to enhance user experiences, optimize platform usability, and foster meaningful interactions on Web3 social platforms?
- How can participants explore innovative approaches to analyze the data and present insightful observations that have the potential to drive innovation within the Web3 social platform ecosystem?

**DURATION:** The pre-hackathon week commences from Saturday, October 14 to Wednesday, October 25, 2023.

**TEAMS:** Participants can form teams of up to five members. Individuals with diverse skills, including web developers, blockchain enthusiasts, digital marketers, copywriters, and project managers, are encouraged to participate and form cross-functional teams.

**TECHNOLOGIES:** Participants are encouraged to access to utilize blockchain technologies, smart contracts, IPFS, Decentralized Identity (DID), DeFI, and any other relevant tools and frameworks to build. For database management, participants must use Couchbase.

#### **JUDGING CRITERIA**

- **Data Analysis:** How well do participants analyze the data to derive meaningful insights from user profile setup, content creator following, and content creation activities?
- **User Engagement Enhancement:** How effective are the proposed recommendations in enhancing user engagement on Web3 social platforms?
- **Innovation and Creativity:** How innovative are the data analysis approaches, visualization techniques, and insights gained from the data?

• **Presentation and Communication:** How effectively do participants present their data analysis findings and recommendations to a non-technical audience?

**SUBMISSION OF CODE:** All participants will be required to submit their codes on Wednesday, October 25th by 7:00 pm. Late entries will be immediately disqualified.

# Mapping User Profiles to Holistic Identity Leveraging Decentralized Identity Integration

**OBJECTIVE:** The objective of this hackathon is to integrate user-generated social profiles and on-chain address-related data into a holistic decentralized identity system. Whether it's an NFT, an ENS name, a Twitter handle, or a DID, participants are required to map all these identities to create a unified and user-centric decentralized identity for individuals. The goal is to leverage blockchain technology and smart contracts to build a robust, secure, and user-controlled identity system that respects privacy while providing a seamless experience across various Web3 platforms.

#### **FUNCTIONAL CONSIDERATION**

- Can the participants successfully map user-generated social profiles and on-chain address-related data to form a unified decentralized identity for each individual?
- How effectively have the participants implemented privacy and security measures to safeguard user identity data in the decentralized identity system?
- Does the user interface provide a user-centric experience, allowing individuals to manage their decentralized identity across different platforms effortlessly?
- Are the identity mapping and management processes transparent and easily understandable for both technical and non-technical users?

**DURATION:** The pre-hackathon week commences from Saturday, October 14 to Wednesday, October 25, 2023.

**TEAMS:** Participants can form teams of up to five members. Individuals with diverse skills, including web developers, blockchain enthusiasts, digital marketers, copywriters, and project managers, are encouraged to participate and form cross-functional teams.

**TECHNOLOGIES:** Participants are encouraged to utilize blockchain technologies, smart contracts, IPFS, Decentralized Identity (DID), DeFI, and any other relevant tools and frameworks to build. For database management, participants must use Couchbase.

#### **JUDGING CRITERIA**

- Functionality and Technical Implementation: How well do participants implement the decentralized identity mapping mechanism, ensuring accurate and reliable identity representation?
- Privacy and Security: How effectively are privacy and security measures integrated to protect user identity data and maintain user control?
- User Experience and Interface Design: How user-friendly and intuitive is the interface for individuals to manage their decentralized identity seamlessly?

• Transparency and Documentation: How well do participants document their identity mapping processes and ensure transparency in the system's operation?

**SUBMISSION OF CODE:** All participants will be required to submit their codes on Wednesday, October 25th by 7:00 pm. Late entries will be immediately disqualified.

# **Web3 Habit Formation App**

**OBJECTIVE:** The objective of this hackathon is to develop a system that rewards individuals for cultivating healthy habits through token incentives. These habits may encompass activities such as running, sleeping, meditating, eating well, or acquiring new knowledge. Research suggests that it takes an average of around 666 days for a new habit to form. Overcoming this initial hurdle can prove challenging for many, yet financial incentives in the form of tokens can offer the necessary motivation to adhere to new habits until they become integrated into an individual's daily life.

#### **FUNCTIONAL CONSIDERATIONS**

- **User-Friendly Interface:** How can the app's interface be intuitive and user-friendly enough that it makes it easy for users to set up their goals, track their progress, and understand how token rewards work?
- **Habit Tracking:** How can we implement a habit-tracking mechanism that allows users to input and monitor their daily activities related to healthy habits?
- **Token Economy:** How can we create a transparent and well-defined token economy where users understand how tokens are earned and redeemed?
- **Gamification Elements:** How can we introduce gamification elements like achievements, levels, and challenges to make the habit-forming process more enjoyable and intuitive?

**DURATION:** The pre-hackathon week commences from Saturday, October 14 to Wednesday, October 25, 2023.

**TEAMS:** Participants can form teams of up to five members. Individuals with diverse skills, including web developers, blockchain enthusiasts, blockchain developers, digital marketers, copywriters, and project managers, are encouraged to participate and form cross-functional teams.

**TECHNOLOGIES:** Participants can use any web development technologies and frameworks to build the platform. Suitable technologies may include HTML, CSS, JavaScript, React, Angular, Vue.js, Node.js, Express.js, Solidity, Ethereum, and any other relevant tools. For database management, participants must use Couchbase.

#### **Judging Criteria:**

- User Experience (UX) Design: Evaluate the ease of use, intuitiveness, and overall user-friendliness of the app's interface.
- **Habit Tracking and Data Accuracy:** Assess how accurately the app tracks and records users' daily activities related to healthy habits.
- **Impact on Habit Formation:** Analyze whether the app effectively encourages users to develop and maintain healthy habits over time.

# **Smart Contract Co-Pilot for Dapp Developers**

**OBJECTIVES:** The hackathon's goal is to create a developer companion that enhances dapp development by providing real-time autocomplete suggestions, generating boilerplate code, and offering human-readable codebase summaries for streamlined coding and improved productivity.

#### **Functional Considerations:**

- Real-Time Autocomplete Suggestions: How can participants develop an intelligent autocomplete system that suggests relevant code snippets and functions as developers write code, enhancing coding speed and accuracy
- **Boilerplate Code Generation:** How to design a feature that generates code for common dapp components, such as contracts, transactions, and user interfaces, based on user input or selected options
- **Codebase Summaries:** How to create an algorithm that analyzes existing dapp codebases and provides a concise, human-readable summary of the code's purpose, functions and relationship between components
- Language and Framework Support: How to ensure compatibility with a wide range of programming languages, dapp frameworks, and libraries, catering to the different needs of developers

**DURATION:** The pre-hackathon week commences from Saturday, October 14 to Wednesday, October 25, 2023.

**TEAMS:** Participants can form teams of up to five members. Individuals with diverse skills, including web developers, blockchain enthusiasts, digital marketers, copywriters, and project managers, are encouraged to participate and form cross-functional teams.

**TECHNOLOGIES:** Natural Language Processing, Machine Learning, Flask, Express.js, WebSocket, React, Markdown, cloud deployment (e.g., AWS, Heroku), Git, and basic security measures. For database management, participants must use couch base

#### **Judging Criteria:**

- Functionality and Developer Experience: Effectiveness of autocomplete suggestions and code generation
- Code Quality and Accuracy: Accuracy of autocomplete suggestions and generated code. Quality of generated code adhering to coding standards, and correctness and reliability of code
- **Compatibility and Integration:** Compatibility with a variety of dapp development languages and frameworks.
- Codebase Analysis and Summaries: Accuracy and comprehensiveness of codebase summaries.

**SUBMISSION OF CODE:** All participants will be required to submit their codes on Wednesday, October 25th by 7:00 pm. Late entries will be immediately disqualified.

# **Personalized Fitness Tracking**

**OBJECTIVE:** The goal of this hackathon is to create an app that leverages AI to provide personalized fitness plans, real-time workout suggestions, and progress tracking.

#### **FUNCTIONAL CONSIDERATIONS:**

- **Personalized Fitness Plans:** Design the app to offer customized fitness plans tailored to users' goals, fitness levels, and preferences.
- **Real-Time Workout Suggestions:** Develop AI algorithms that analyze users' real-time performance and adapt workout recommendations accordingly.
- **Progress Tracking:** Implement features to track users' workout progress, including metrics such as distance covered, calories burned, and improvements over time.

**DURATION:** The pre-hackathon week commences from Saturday, October 14 to Wednesday, October 25, 2023.

**TEAMS:** Participants can form teams of at least five members. We encourage diverse teams consisting of developers, fitness enthusiasts, UI/UX designers, and AI experts to collaborate.

**TECHNOLOGIES:** Utilize mobile app development frameworks such as Flutter or React Native. AI and machine learning libraries will be essential for personalized recommendations.

#### **JUDGING CRITERIA:**

- **Functionality and User Experience:** Evaluate how well the app delivers personalized fitness plans and real-time suggestions, and how user-friendly the interface is.
- **Innovation:** Assess the creative use of AI to enhance fitness tracking and workout suggestions.
- **Technical Implementation:** Review the robustness and efficiency of the AI algorithms and integration with wearable devices.
- **Impact:** Consider the potential positive impact of the app on users' fitness journeys and overall well-being.

**SUBMISSION OF CODE:** All participants will be required to submit their codes on Wednesday, October 25th by 7:00 pm. Late entries will be immediately disqualified.

### **Nutrition Assistant**

**OBJECTIVE:** The goal of this hackathon is to build a platform that offers AI-driven meal planning, recipe recommendations, and grocery shopping lists based on users' dietary preferences and health goals.

#### **FUNCTIONAL CONSIDERATIONS:**

- AI-Powered Meal Planning: Develop an AI algorithm that generates personalized meal plans for users, considering factors such as dietary restrictions, nutritional goals, and flavor preferences.
- **Recipe Recommendations:** Implement a recommendation engine that suggests recipes aligned with users' dietary needs and available ingredients.
- **Grocery Shopping Lists:** Design a feature that compiles organized shopping lists based on selected recipes, making grocery planning and shopping more convenient.

**DURATION:** The pre-hackathon week commences from Saturday, October 14 to Wednesday, October 25, 2023.

**TEAMS:** Participants can form teams of at least five members. We encourage interdisciplinary teams consisting of developers, nutritionists, data scientists, and UX/UI designers to collaborate.

**TECHNOLOGIES:** Utilize AI and machine learning frameworks for meal planning and recommendation algorithms. Choose a user-friendly web or mobile development framework for the platform's interface.

#### **JUDGING CRITERIA:**

- **Functionality and User Experience:** Evaluate the effectiveness of the AI-driven meal planning, recipe recommendations, and grocery list features, along with the platform's ease of use.
- **Innovation:** Assess the creativity and uniqueness of the AI algorithms and recipe recommendation engine.
- **Technical Implementation:** Review the technical complexity and efficiency of the algorithms used for meal planning and recipe suggestions.
- **Impact:** Consider the potential positive impact of the platform on users' dietary choices, meal preparation, and overall health.

**SUBMISSION OF CODE:** All participants will be required to submit their codes on Wednesday, October 25th by 7:00 pm. Late entries will be immediately disqualified.

### **Wellness Gamification**

**OBJECTIVE:** The aim of this hackathon is to develop a game-like application that motivates users to achieve wellness milestones, rewarding them with virtual incentives tied to real-world benefits.

#### **FUNCTIONAL CONSIDERATIONS:**

- **Virtual Incentives and Rewards:** Design a system that offers virtual rewards, such as in-game currency or badges, for users who achieve wellness goals and milestones.
- **Gamified Challenges:** Develop interactive challenges and activities that engage users in physical, mental, and social wellness activities.
- **Progress Tracking:** Implement features that track users' progress in completing challenges, providing real-time feedback and visualizing their accomplishments.

**DURATION:** The pre-hackathon week commences from Saturday, October 14 to Wednesday, October 25, 2023.

**TEAMS:** Participants can form teams of at least five members. We encourage collaboration among developers, game designers, and other experts.

**TECHNOLOGIES:** Utilize game development platforms like Unity or Godot for creating the game-like application.

#### **JUDGING CRITERIA:**

- **Gamification Effectiveness:** Evaluate how well the app employs gamification elements to motivate users and encourage them to adopt healthier habits.
- **Innovation:** Assess the creativity and uniqueness of the gamified challenges and virtual rewards system.
- **Technical Implementation:** Review the technical aspects of game development, including user interactions, progress tracking, and integration of sensors.
- **Impact:** Consider the potential positive impact of the application on users' wellness and motivation to maintain healthier lifestyles.

**SUBMISSION OF CODE:** All participants will be required to submit their codes on Wednesday, October 25th by 7:00 pm. Late entries will be immediately disqualified.

# **Local Language Learning App**

**OBJECTIVE:** The objective of this hackathon is to create a mobile app that offers language learning lessons and resources for indigenous Nigerian languages, promoting cultural preservation and communication

#### **FUNCTIONAL CONSIDERATIONS:**

- **Interactive Lessons:** Develop engaging language lessons that cover vocabulary, grammar, pronunciation, and cultural nuances of indigenous Nigerian languages.
- **Audiovisual Content:** Include audio recordings, videos, and interactive exercises to facilitate listening comprehension and speaking skills.
- **Progress Tracking:** Implement features that track users' language proficiency progress and offer personalized recommendations for improvement.

**DURATION:** The pre-hackathon week commences from Saturday, October 14 to Wednesday, October 25, 2023.

**TEAMS:** Participants can form teams of at least five members. We encourage collaboration between app developers, educators, and UI/UX designers.

**TECHNOLOGIES:** Utilize mobile app development frameworks such as Flutter or React Native. Incorporate audio and video playback functionalities, as well as interactive quizzes.

#### **JUDGING CRITERIA:**

- Language Learning Experience: Evaluate the effectiveness of the app's language lessons, user engagement, and language proficiency improvement.
- **Cultural Inclusivity:** Assess how well the app captures the cultural nuances and context of the indigenous Nigerian languages being taught.
- **Technical Implementation:** Review the technical aspects of app development, including user interactions, multimedia integration, and progress tracking.
- **Impact:** Consider the potential positive impact of the app on preserving and promoting indigenous Nigerian languages and fostering cultural communication.

**SUBMISSION OF CODE:** All participants will be required to submit their codes on Wednesday, October 25th by 7:00 pm. Late entries will be immediately disqualified.

### **Rural Education Enhancement**

**OBJECTIVE:** The aim of this hackathon is to build an offline-compatible educational app that provides access to educational content, resources, and interactive lessons for students in rural areas with limited connectivity.

#### **FUNCTIONAL CONSIDERATIONS:**

- **Offline Compatibility:** Develop a mobile app that allows students to download and access educational content even without a consistent internet connection.
- **Curriculum Coverage:** Include a diverse range of subjects, lessons, and resources aligned with the local curriculum to support holistic learning.
- **Interactive Lessons:** Design engaging lessons that incorporate multimedia elements, quizzes, and interactive activities to enhance understanding.
- **Progress Tracking:** Implement features that enable students to track their learning progress and receive feedback on completed exercises.

**DURATION:** The pre-hackathon week commences from Saturday, October 14 to Wednesday, October 25, 2023.

**TEAMS:** Participants can form teams of up to four members. We encourage collaboration among app developers, educators, content creators, and UI/UX designers.

**TECHNOLOGIES:** Utilize mobile app development frameworks such as Flutter or React Native for cross-platform compatibility. Incorporate data synchronization features for content updates when internet connectivity is available.

#### **JUDGING CRITERIA:**

- **Educational Impact:** Evaluate how well the app provides relevant and high-quality educational content that enhances the learning experience of students in rural areas.
- **Offline Functionality:** Assess the effectiveness of the app's offline capabilities, ensuring seamless access to content without requiring a stable internet connection.
- **Interactivity and Engagement:** Review the interactive features of the app, including multimedia elements, quizzes, and activities that keep students engaged.
- **Technical Implementation:** Evaluate the app's technical aspects, including user interface design, navigation, and data synchronization when connectivity is available.

**SUBMISSION OF CODE:** All participants will be required to submit their codes on Wednesday, October 25th by 7:00 pm. Late entries will be immediately disqualified.

# **Financial Inclusion and Microfinance Platform:**

**OBJECTIVE:** Create a mobile banking app that offers microfinance services, enabling individuals without access to traditional banking to save, borrow, and manage their finances.

#### **FUNCTIONAL CONSIDERATIONS:**

**DURATION:** The pre-hackathon week commences from Saturday, October 14 to Wednesday, October 25, 2023.

**TEAMS:** Participants can form teams of at least five members. We encourage collaboration among app developers, finance professionals, user experience designers, and data security experts.

**TECHNOLOGIES:** Utilize mobile app development frameworks such as Flutter or React Native for cross-platform compatibility. Integrate secure authentication mechanisms and encrypted communication channels for financial transactions.

#### **JUDGING CRITERIA:**

- **Microfinance Accessibility:** Evaluate how well the app provides microfinance services, making financial products and services accessible to underserved individuals.
- **Digital Transactions:** Assess the app's usability and security in facilitating digital transactions, ensuring smooth and safe money transfers.
- **Financial Literacy:** Review the effectiveness of the app's financial education resources in promoting financial literacy and empowering users to make informed financial decisions.
- **Technical Implementation:** Evaluate the app's technical aspects, including user interface design, transaction security, and ease of use for individuals with varying levels of digital literacy.

**SUBMISSION OF CODE:** All participants will be required to submit their codes on Wednesday, October 25th by 7:00 pm. Late entries will be immediately disqualified.

# **Marketplace for Agricultural Trade**

**OBJECTIVE:** Develop a digital platform that serves as a local marketplace for agricultural trade, connecting farmers directly with buyers, processors, and distributors. The platform should empower farmers with better market access and fair pricing while enabling buyers to source high-quality produce.

#### **FUNCTIONAL CONSIDERATIONS:**

- **Seller Listings:** Enable farmers to list their produce with details such as quantity, quality, and pricing.
- **Buyer Search and Filters:** Provide buyers with a user-friendly interface to search for specific produce, apply filters, and view available options.
- **Secure Transactions:** Implement a secure payment gateway for transactions between buyers and sellers to ensure safe financial transactions.
- **Reviews and Ratings:** Allow users to rate and review sellers, fostering transparency and trust within the marketplace.

**DURATION:** The pre-hackathon week commences from Saturday, October 14 to Wednesday, October 25, 2023.

**TEAMS:** Participants can form teams of at least five members. We encourage collaboration among app developers, agriculture experts, UI/UX designers, and e-commerce specialists.

**TECHNOLOGIES:** Utilize web development frameworks. Consider incorporating a responsive design for seamless access from various devices.

#### **JUDGING CRITERIA:**

- **Functionality and Usability:** Evaluate the user experience of the platform for both farmers and buyers, including ease of listing, searching, and messaging.
- **Market Access:** Assess how effectively the platform connects farmers to a wider range of buyers, promoting better market access and pricing.
- **Transaction Security:** Review the security of the payment gateway and the protection of users' financial information.
- **Transparency and Trust:** Consider the transparency of information provided by sellers and the reputation system's effectiveness in building trust.

**SUBMISSION OF CODE:** All participants will be required to submit their codes on Wednesday, October 25th by 7:00 pm. Late entries will be immediately disqualified.

# **Expense Tracker - Budget Management**

**OBJECTIVE:** Create an intuitive Expense Tracker app that enables users to monitor their spending habits and receive alerts when they exceed predefined budgets. This app aims to empower users to take control of their finances and make informed financial decisions.

#### **Functional Considerations:**

- 1. **Prototype Development:** Develop a functional prototype or concept of the Expense Tracker app that helps users manage their expenses efficiently.
- 2. **User Experience:** Prioritize creating a user-friendly interface that offers a seamless experience, even if it's a basic version.
- 3. **Innovation:** Emphasize innovative features or solutions that distinguish the Expense Tracker from existing budget management tools.
- 4. **Expense Logging:** Implement the ability for users to record their expenses, categorize them, and add relevant details.
- 5. **Budget Setting:** Enable users to set specific budgets for different expense categories, such as groceries, entertainment, or rent.
- 6. **Alerts and Notifications:** Create a system that alerts users when they approach or exceed their budget limits.
- 7. **Data Analysis:** Provide basic insights and visualizations to help users understand their spending patterns.
- 8. **Privacy Controls:** Ensure the security and privacy of users' financial data.

**DURATION:** The hackathon will take place from Saturday, October 14 to Wednesday, October 25, 2023.

**TEAMS:** Participants can form teams of at least five members, fostering collaboration between app developers, financial experts, UI/UX designers, and data analysts.

**TECHNOLOGIES:** Leverage web or mobile app development technologies to create a responsive and accessible Expense Tracker.

#### **JUDGING CRITERIA:**

- 1. **Quality of the Idea:** Evaluate the creativity and originality of the Expense Tracker concept.
- 2. **Implementation of the Idea:** Assess how well the app's features and functionality are executed.
- 3. **User-Friendly Design:** Consider the overall usability, aesthetics, and user experience of the app.
- 4. **Budget Management Effectiveness:** Evaluate how effectively the app helps users manage their expenses and budgets.
- 5. **Innovative Features:** Reward innovative features or approaches that enhance the user experience.

- 6. **Data Analysis and Insights:** Examine the quality of insights provided to users based on their spending data.
- 7. **Functionality:** Assess the completeness and functionality of the app, even if it's a basic version.
- 8. **Best Delivery of Presentation:** Ensure clear and effective communication of how the Expense Tracker addresses the challenge.

**SUBMISSION OF CODE:** All participants will be required to submit their code by the specified deadline. Late submissions may not be accepted.

**CODE OF CONDUCT:** All participants must adhere to a code of conduct that promotes a friendly and inclusive environment for all participants.

# SocialFi (Social Finance) for Supporting Your Favorite Content Creators

**OBJECTIVE**: Develop a decentralized digital platform that enables users to support their favourite content creators through Web 3 technology. Similar to platforms like BuyMeACoffee, this SocialFi platform should empower creators to receive direct contributions from their supporters while fostering a decentralized and transparent ecosystem.

#### **FUNCTIONAL CONSIDERATIONS:**

- **Creator Profiles**: Allow content creators to set up profiles with details about their work, including content types, goals, and funding needs.
- **Supporter Contributions**: Provide a user-friendly interface for supporters to browse creators, select their favourites, and make financial contributions using cryptocurrencies or tokens.
- **Blockchain Integration**: Implement blockchain technology to ensure transparent and secure transactions, with all contributions and withdrawals recorded on a public ledger.
- **Feedback and Ratings**: Enable users to leave feedback and ratings for content creators, enhancing transparency and trust within the platform.

**DURATION**: The development phase will begin on Saturday, October 14 and conclude on Wednesday, October 25, 2023.

**TEAMS**: Participants can form teams of at least five members. We encourage collaboration among blockchain developers, content creators, UI/UX designers, and financial experts with experience in cryptocurrency.

**TECHNOLOGIES**: Utilize blockchain technology and Web 3 development frameworks to create a decentralized and secure platform. Ensure responsive design for seamless access from various devices.

#### **JUDGING CRITERIA:**

- **Functionality and Usability**: Evaluate the user experience of the platform for both content creators and supporters, including ease of profile creation, contributions, and feedback submission.
- **Empowerment of Creators**: Assess how effectively the platform enables content creators to receive direct financial support and whether it fosters a decentralized ecosystem.
- **Blockchain Security**: Review the security of blockchain integration and the transparency of financial transactions.
- **Transparency and Trust**: Consider the transparency of information provided by content creators and the effectiveness of the rating system in building trust.

**SUBMISSION OF CODE**: All participants will be required to submit their codes on Sunday, August 24th, by 7:00 pm using the provided submission portal. Late entries will be immediately disqualified.

**CODE OF CONDUCT**: All participants must adhere to a code of conduct that promotes a friendly and inclusive environment for all participants.

# SocialFi (Social Finance) for Rewarding Content Writers

**OBJECTIVE**: Develop a decentralized digital platform that revolutionizes the way content writers are compensated by paying them for each post they publish on the platform. This SocialFi platform aims to empower content creators with a fair and transparent compensation system while fostering a decentralized ecosystem.

#### **FUNCTIONAL CONSIDERATIONS:**

- **Writer Profiles**: Enable content writers to create profiles with information about their expertise, interests, and payment preferences.
- **Post Publishing and Compensation**: Provide an intuitive interface for writers to publish content directly on the platform and receive payments for each post, either in cryptocurrencies or tokens.
- **Blockchain Integration**: Implement blockchain technology to ensure transparent and secure transactions, recording all compensation and withdrawals on a public ledger.
- **User Feedback and Ratings:** Allow users to leave feedback and ratings for content writers, enhancing transparency and trust within the platform.

**DURATION**: The development phase will commence on Monday, September 18 and conclude on Sunday, September 24, 2023.

**TEAMS**: Participants can form teams of at least five members, encouraging collaboration among blockchain developers, content creators, UI/UX designers, and financial experts with expertise in cryptocurrency.

**TECHNOLOGIES**: Utilize blockchain technology and web 3 development frameworks to create a decentralized and secure platform. Ensure responsive design for seamless access from various devices.

#### **JUDGING CRITERIA:**

- **Functionality and Usability**: Evaluate the user experience of the platform for both content writers and users, including ease of profile creation, content publishing, and payment receipt.
- **Empowerment of Writers**: Assess how effectively the platform compensates content writers for their work and whether it fosters a decentralized ecosystem for content creation.
- **Blockchain Security**: Review the security of blockchain integration and the transparency of financial transactions.
- **Transparency and Trust**: Consider the transparency of information provided by content writers and the effectiveness of the rating system in building trust.

**SUBMISSION OF CODE**: All participants will be required to submit their codes on Sunday, August 24th, by 7:00 pm using the provided submission portal. Late entries will be immediately disqualified.

**CODE OF CONDUCT**: All participants must adhere to a code of conduct that promotes a friendly and inclusive environment for all participants.