**Author:** @kendrick
**Team:** [ @kendrick,@kayode, @tofunmi, @tolu ]

| | |
|---|---|
| **Product Manager:** *Kendrick* | |
| **Frontend Developer:** *Kayode* | |
| **Blockchain Developer:** *Tofunmi* | |
| **UI/UX Designer:** *Toluwani* | |
| | |
| | |

## Overview

The purpose of Kombat is to create a decentralized and transparent prediction market platform where users can create a p2p wager or join an existing prediction market in a secure environment.

## Problem

**1. Lack of Trust and Transparency:**

In traditional prediction markets, participants often face issues of trust. Disputes over outcomes, fund management, or even the fairness of the game are common. Kombat solves this by using smart contracts to manage and automatically release funds based on pre-agreed conditions, ensuring that all transactions are transparent and trustless.

**2. Centralized Control:**

Most existing prediction markets are centralized, meaning they control the funds, rules, and outcomes, which can lead to manipulation or unfair practices. Kombat decentralizes the process, putting control in the hands of the participants and utilizing the blockchain to ensure that no single entity can tamper with the results or funds.

**3. Escrow service:**

In traditional setups, resolving disputes over prediction market outcomes can be time-consuming and biased, often requiring participants to rely on a centralized authority with little transparency. Kombat addresses this by providing a structured dispute resolution process

where participants can submit evidence, and support can intervene if necessary, ensuring a fair and transparent resolution.

**4. Accessibility and Inclusivity:**

Creating and managing p2p wagers/ prediction markets among participants, especially across different topics, can be cumbersome. Kombat makes it easy for anyone, anywhere, to participate in a p2p wager by simply connecting their wallet and sharing a link, thus broadening access and inclusivity in the prediction markets space.

**5. Security Concerns:**

In traditional prediction markets, there's always the risk of fraud, hacks, or mismanagement of funds. Kombat mitigates these risks by leveraging blockchain technology, which provides a secure, immutable ledger for all transactions, significantly reducing the risk of fraud and ensuring that funds are only released according to the agreed-upon rules.

# Objectives

Kombat is an onchain platform that allows users to create or participate in prediction markets. The platform ensures transparency and security by utilizing smart contracts to manage and release funds based on the outcomes of the challenges.

# Key Features

- **Wager System (P2P)**: Users can create and participate in p2p wagers, challenging each other to a wager. The winner is automatically rewarded based on predetermined outcomes.
- **Market System (Polymarket)**: A prediction market feature where multiple users can join and wager on the outcome of broader events (e.g., sports matches, elections). Participants place their wager on available outcomes, and funds are distributed based on the final event result.
- **Dispute Resolution**: Both WAGER and MARKET systems will allow disputes over outcomes with a fair resolution process.

# Functional Requirements

**1.0 Use Cases:**

- **Wager (P2P)**:
  - ○ Two users engage in a wager by agreeing on the challenge parameters, and funds are held in escrow(a smart contract) until the wager is resolved.
- **Market (Polymarket)**:
  - ○ A system-generated (based on popular ask from the community) market for multiple participants to join prediction markets on predefined large-scale events (e.g., a sports match, election results).

**1.1 User Roles:**

- **Wager Creator (Wager)**: The individual who creates a P2P wager, inviting a single participant to the challenge.
- **Market Creator (Market)**: The system creates prediction markets for public events based on community demand. Users join to place bets on available outcomes.
- **Participant**: Users who join the wager or prediction market.
- **Winner(s)**:
  - ○ **Wager**: The individual declared as the winner of a P2P challenge.
  - ○ **Market**: Users that bet on the correct outcome of the event.

**1.2.0 User Journey (Market):**

- **Market Creation**:
  - ○ The system creates prediction markets for major events (e.g., elections, sports).
  - ○ Outcomes for the event are predefined by an oracle(e.g., "Candidate A wins the election" or "Team X wins the game").
- **Market Participation**:
  - ○ Users join by selecting an outcome to bet on and connecting their wallets.
  - ○ Funds are frozen from the user's wallet.
- **Market Closing**:
  - ○ After the event is resolved, the system verifies the correct outcome.
  - ○ The platform automatically distributes the pooled funds to participants who placed bets on the correct outcome.
- **Dispute Resolution** (For both WAGER and MARKET):
  - ○ In case of disputes, users can initiate the process to submit proof, and the support team will resolve the issue based on evidence provided.

**1.2.1 User Journey (Wager):**

- **Wager Creation**:
  - The wager Creator specifies:
    - The title and description of the wager.
    - The wager amount.
    - Challenge timing (how long the challenge will take).
    - The rules or criteria for winning (customizable or predefined).
  - The platform live wager with an expiry time.
- **Wager Participation**:
  - The wager Creator shares the link with intended participants, or adds them to the live wager through their basename/ id.
  - Participants click the link, and accept the challenge.
  - The platform freezes the specified bet amount from each participant's wallet.
- **Wager Execution**:
  - After the event is resolved, the system verifies the correct outcome.
  - The platform automatically distributes the pooled funds to participants who placed bets on the correct outcome.
  - The challenge is carried out (either off-platform or integrated with third-party apps).
  - After the time elapses, it pops up a button to choose whether or not you won the challenge. Winner chooses the "won" button and the loser chooses the loss button.
- **Fund Release:**
  - Once the challenge is over and the winner(s) are determined, the smart contract automatically releases the frozen funds to the winner(s).
  - In a situation where both parties click on the same button (i.e won-won button or loose-loose button), the wager automatically goes into a dispute.
- **Dispute Resolution** (For both WAGER and MARKET):
  - In case of disputes, users can initiate the process to submit proof, and the support team will resolve the issue based on evidence provided.

**1.3. Smart Contract Requirements:**

- **Fund Freezing:** A smart contract must handle the freezing of the funds from each participant's wallet.
- **Fund Release:** The contract must automatically release the funds to the winner's wallet address.
- **Multi-signature Authorization:** If needed, multiple participants can authorize the release of funds based on agreed-upon results.

**1.4. Dispute Resolution:**

In the event that both parties fail to authorize the winner(s) or a dispute arises regarding the outcome of a wager or market, the platform will enable the option for a formal dispute resolution process. A dedicated support analyst will thoroughly review the submitted evidence, applying various verification methods to ensure a fair assessment. If the support analyst is unable to conclusively determine the rightful winner(s) after conducting the necessary verifications, 50% of the funds will be refunded to all participants involved.

**Dispute Process:**

- **Initiating a Dispute:** Any participant can initiate a dispute by clicking the "Dispute" button within the challenge interface or when both parties fail to reach a consensus.
- **Proof Submission:** Both parties will be required to submit proof or evidence supporting their claims. This could include screenshots, video recordings, or other relevant data.
- **Support Intervention:** The platform's support team will review the submitted evidence and make a final decision at their discretion.
- **Resolution:** Based on the evidence, support will decide the winner(s) or, in rare cases, may opt to refund 50% of the frozen funds to all participants after 7 days (subject to further evaluation) if no clear winner is determined.

# Non-functional requirement

**1.5. Security:**

- All transactions must be secure, with funds held in smart contracts to ensure trustless operations.
- Ensure the platform is free from vulnerabilities that could lead to the loss of funds.

**1.6. Scalability:**

- The platform should handle multiple concurrent challenges with minimal latency.
- Support for future integration with more complex scenarios and external APIs for challenge verification.

**1.7. Usability:**

- The user interface should be intuitive, guiding users through the process of creating, joining, and completing challenges.
- Clear instructions and confirmations at each step to avoid user errors.

# Constraints

Roadblocks, realities, and dependencies that limit how ambitious you can be with this project. Whether it's time, money, or engineering capability, be clear about the limits of this project.

1. Constraint: Project is quite big and requires more engineers to come onboard and build.
2. Constraint: Project requires some running costs and managerial costs.
3. Constraint:

# Persona

Who are the target personas for this product, and which is the key persona?

| Everyone | Just anybody that needs to challenge someone else |
| --- | --- |
| **Blockchain enthusiasts** | Technical Individuals |
| **Gammers** | Gammers that wishes to create challenge |

# Use Cases

Instances where various personas will use the product, in context.

**A scenario where two people wishes to wager on their teams to win a football match**

**A scenario where a person challenges his friend to a digital game.**

**A prediction market of the US Presidential election.**

# Cases Future Enhancements

- **Leaderboard and Ranking System:** To encourage competition among users.
- **Customizable Challenge Types:** Allow users to create more complex or themed challenges.
- **Mobile App:** Develop a mobile version of Kombat for a broader user base.
- **Social Feed:** Chat and community features for participants.
- **Farcaster frame**.
- **Tokenization**

# Open Issues

What factors need to be figured out? What problems may arise and how do you plan on addressing them?

- Dispute resolution still needs lots of work to do
-

# Q&A

What are common questions about the product along with the answers you've decided? This is a good place to note key decisions.

| Asked by | Question | Answer |
|---|---|---|
| Tester 1 | What is the difference between a **Wager** and a **Market**? | A wager only allows two participants, and can be created by users. While a Market can take on more than two participants, and it is typically created by the system. |
| Tester 2 | What happens if we both claim to win in a wager? | In such a situation, the wager goes into a dispute automatically. |
| | | |

# Feature Timeline and Phasing

| Feature | Status | Dates |
|---|---|---|
| | Ideation & Design | 2nd of September, 2024 |
| | In Development | 28th of September, 2024 |
| | Testing | March |
| | Shipped | June |
| | Blocked | |