AfriMart Litepaper

Decentralized Prediction Markets for African & Global Events

Introduction

AfriMart is a decentralized prediction market protocol built on Solana, focused on enabling transparent, trust-minimized markets for real-world events. The project initially targets African-relevant outcomes such as football results, foreign exchange rates, and crypto price movements.

Problem Statement

Most prediction markets rely on centralized resolution mechanisms and opaque oracle systems. This introduces trust assumptions, limits automation, and excludes many region-specific markets. AfriMart addresses these challenges through deterministic on-chain logic and oracle-driven settlement.

System Overview

AfriMart consists of three core components: an Anchor-based on-chain CPMM program, a stateless .NET Market Service implementing idempotent workflows, and a planned oracle resolution layer leveraging Chainlink services.

Market Mechanics

Markets operate using a YES/NO constant product market maker. Users buy and sell outcome shares against liquidity pools, with all pricing enforced on-chain. After resolution, payouts are distributed pro-rata from the vault.

Oracle Resolution

Market resolution supports manual, API-based, and fully automated oracle-driven settlement. Chainlink Functions and Automation are planned to provide secure, transparent, and deterministic resolution workflows.

Security & Reliability

The protocol emphasizes deterministic PDA derivation, explicit idempotency, retry-safe blockchain interactions, and strict separation between orchestration and settlement logic.

Roadmap

Phase 1: Core protocol and Market Service
Phase 2: Portfolio Service and user-facing interfaces
Phase 3: Oracle automation and expanded market types
Phase 4: Permissionless markets and governance mechanisms

Vision

AfriMart aims to become foundational infrastructure for decentralized prediction markets across emerging economies, combining performance, transparency, and automated resolution.