AI & Non-AI Football Betting Prediction System

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Problem Statement

- **Time consuming** when analyzing different teams and leagues for odds
- Without real-time alerts, bettors may **miss profitable betting opportunities** before odds change.
- Many bettors rely on **gut feeling** rather than **statistical analysis**, leading to **poor bet selections**.
- Manually analyzing **hundreds of teams, match results, and betting odds** increases the risk of **missing valuable insights**.

Proposed Solution and Justification

AI-Powered Predictions: Our system will use **Machine Learning (ML) algorithms** to analyze **team form, historical matches, and betting odds** to predict match outcomes with (**70-85% accuracy)**.

✔ **Non-AI Version:** Users who prefer **basic statistics** can still access predictions based on **H2H results, form, and betting odds analysis**.

✔ **Telegram Bot Integration:** Users can request predictions via **Telegram commands**, making the system **convenient and accessible**.

Main Objective

To develop an **AI & Non-AI Football Betting Prediction System that provides real-time betting insights** by collecting match data, analyzing odds, and predicting match outcomes.

Specific Objectives

- Use of API KEY for integration of match data.
- Implement Machine Learning algorithms for AI-based betting predictions.
- Build a Telegram bot that allows users to request predictions and receive betting alerts.
- Evaluate the accuracy and efficiency of the system against existing betting models.

Methodology

Research Methodology

A combination of **quantitative and qualitative research** will be used to:

- Analyze **historical football match data** to train the AI model.
- Compare **betting odds** from different bookmakers.
- Evaluate system accuracy by **comparing predictions with actual match results**.

Development Methodology

We will use an **Agile Development Approach**, allowing for **continuous testing and refinement**. The project will be developed in **four phases**:

Phase 1: Research & Data Collection
Phase 2: AI Model Development
Phase 3: Telegram Bot & Web Interface Integration
Phase 4: System Testing & Accuracy Evaluation

Significance of the Study

- **Increase Profits with Accuracy** : Predict match outcomes with 70-85% accuracy by analyzing team form, head-to-head results, goal difference, and betting odds. Users can win KES 14,000–17,000 from KES 20,000 wagers, compared to just KES 10,000 with random bets—a profit increase of 40-70%!
- **Reduce Risks with Smart Analysis** : Identify high-risk and low-risk bets, calculate true odds probabilities, and get optimal bet amount suggestions to avoid over-betting. Users experience 30-50% fewer losses than traditional methods.
- **Easy Access Anytime, Anywhere** : Use a simple Telegram bot command like "/predict Arsenal vs Chelsea" to get instant predictions. It works on all devices—smartphones, tablets, or computers—and requires no technical knowledge.

In short, this system combines advanced AI insights, live alerts, risk management to help you make smarter, faster, and more profitable betting decisions!

Software Requirements

Component	Software	Estimated Cost (KES)
Programming Language	Python 3.8+	Free
IDE/Code Editor	VS Code / PyCharm	Free
Machine Learning Libraries	Scikit-learn, Pandas, NumPy	Free
API Integration	Requests (Football Data & Odds API)	Free
Web Framework	Flask / Django	Free
Database	SQL	Free

Hardware Requirements

Component	Specification	Estimated Cost(KES)
Cloud Server	AWS/Google Cloud	700-7000 Per month

Cost of Development

Item	Non-AI Version (KES)	AI Version (KES)
Football API	3,000 - 12,000	3,000 - 12,000
Odds API	1,500 - 7,500	1,500 - 7,500
Cloud Hosting	700 - 7,000/month	700 - 7,000/month
AI Model Training	N/A	1,500 - 15,000
Total Cost Per Month	5,200 - 26,500	6,200 - 41,500

Project Timeline

Phase	Tasks	Duration
Phase 1: Research & Planning	Market research, competitor analysis, requirements gathering	2 Weeks
Phase 2: System Development (Non-AI Version)	Develop API integration, team stats & odds analysis	2 Weeks
Phase 3: AI Model Development	Train AI on past match data, optimize accuracy	2 Weeks
Phase 4: Telegram Bot & Mobile Deployment	Build Flask/Django web app, design UI Telegram Bot for real-time betting alerts	1 Week
Phase 5: Beta Testing & Feedback	User testing, collect feedback, fix bugs	3 days

Total Timeline 2 - 3months

THANK YOU