

Detailed Code Documentation

Code Documentation

1. **Overview:**

- This script connects to the IQ Option API to execute trades based on AI-driven analysis of market indicators.

2. **Features:**

- OpenAI integration for indicator analysis.
- Martingale strategy implementation with adjustable limits.
- Graphical User Interface (GUI) for user control.

3. **Key Functions:**

- `connect_to_iq_option`: Establishes a connection to the IQ Option API.
 - `analyze_indicators`: Uses OpenAI to analyze market indicators and provide trade recommendations.
- `fetch_top_asset`: Identifies the most profitable asset for trading.
- `execute_trades`: Manages trade execution with the Martingale strategy.
- `monitor_and_analyze_trade`: Monitors trade results and adjusts strategy based on outcomes.

4. **GUI Components:**

- Start/Stop buttons to control the bot.
- Input field to set the initial trade amount.
- Log display to monitor bot activity in real-time.

5. **Customization:**

- Users can adjust ``martingale_limit`` and ``max_simultaneous_trades`` for personalized strategies.

6. **Error Handling:**

- Includes retry mechanisms for failed API requests.
- Logs all errors and key activities for transparency and debugging.

7. **Dependencies:**

- ``fpdf`` for PDF generation.
- ``iqoptionapi`` for trading API access.
- ``openai`` for AI-driven decision making.
- ``tkinter`` for GUI.

End of Documentation