| **Project Summary: Automated CFD Trading Platform** |
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**Objective:**

To develop a comprehensive platform that allows users to automate the trading of Contracts for Difference (CFDs) through investment robots (algorithms). The platform will act as a marketplace where users can select, configure, and execute robots, with orders being replicated in their MetaTrader 5 (MT5) accounts.

**Key Features:**

* **Robot Marketplace:**
  + Catalog of investment robots with detailed information (strategy, risk, performance history).
  + User rating and review system.
* **Backtesting:**
  + Simulation of robot performance on historical data for evaluation and optimization.
  + Visualization of performance metrics (win rate, drawdown, profit/loss).
* **Robot Configuration:**
  + Interface to configure robot parameters (stop loss, take profit, position size).
  + Personalization of strategies according to the user's risk profile.
* **MetaTrader 5 (MT5) Integration:**
  + Secure connection to MT5 accounts via API.
  + Automated execution of orders generated by robots.
  + Real-time monitoring of account balance and open positions.
* **Monitoring and Reporting:**
  + Real-time monitoring dashboards of robot performance.
  + Detailed performance reports (daily, weekly, monthly).
  + Alert and notification system (via email, SMS).
* **Risk Management:**
  + Daily and weekly loss limits.
  + Implementation of automatic stop loss and take profit.
  + Risk alerts.
* **Security:**
  + Robust user authentication.
  + Encryption of sensitive data.
  + Protection against cyber attacks.
  + Compliance with financial regulations.

**System Architecture:**

**The platform will be developed in a modular and scalable architecture, divided into layers:**

| **\* Frontend: User interface (web and/or mobile) developed with React, Angular, or Vue.js.** |
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* **Backend:** Business logic and API developed with Python (Django/Flask), Java (Spring), or Node.js (NestJS).
* **Database:** PostgreSQL, MySQL, or MongoDB to store user data, robots, transaction history, and market data.
* **MT5 Integration:** Use of the Python MT5 API or MQL5 API to communicate with the trading platform.

**Additional Information:**

* The platform should be responsive and work on different devices (desktops, tablets, smartphones).
* The platform should be scalable to support a large number of users and robots.
* The security of user and transaction data is a priority.