Option Chains Webpage

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Problem Statement

The problem we aim to address is the lack of a real-time options chain screen with live market data processing and implied volatility (IV) calculation. Existing solutions do not provide a comprehensive and dynamic platform that highlights in-the-money and out-of-money options while allowing selection of different underlyings and expiries. Our goal is to develop a web-based system that offers a user-friendly interface, accurate IV calculations based on the Black-Scholes formula, and automatic data refresh without browser reloading, enabling traders to make informed decisions efficiently.

Features

Real-time Market Data

Receives and processes live market data stream over TCP/IP, including option prices, volumes, and underlying prices
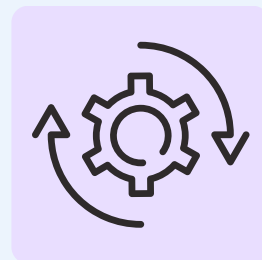
Dynamic Data Refresh

Continuously updates the options chain and calculations in real-time as new market data arrives, without requiring browser reloads

Historical Data Analysis

Provides tools to analyze historical options data, including price trends, volatility patterns, and option volume

Customization Options

Allows users to customize the display settings, such as choosing columns to show, sorting options, and filtering based on criteria like strike price or option type.
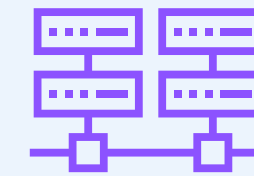
In-the-Money and Out-of-Money Highlighting

Clearly differentiate in-the-money and out-of-money options through visual cues or color coding

Technology Stack

Frontend Development

Efficient and scalable cross-platform applications using HTML5 frontend development.

Backend Development

Powering web applications and services with Python's backend using Flask.

In conclusion, our project offers a comprehensive solution to the challenges faced by traders in accessing real-time options chain data. By providing an intuitive interface, accurate calculations, and dynamic updates, we empower traders to make informed decisions efficiently. With customizable features and enhanced market analysis, our system revolutionizes the options trading experience.

Conclusion

Thank You