

# Project Name - CoinEx

## Summary of Project Features

### 1. Custom user models:

- We have modified the default user model to add additional fields, easier maintenance, make it compatible with third-party packages, and integrate with existing systems.

### 2. New user registration:

- To have a look at all the available information about Crypto and to access all the functionality user need to register him/herself on our platform.

### 3. Login & Logout:

- To authenticate the registered users, provide them their likewise information and manage the session in browser.

### 4. Custom interface/features for registered and unregistered users:

- Currency exchanges, available NFTs, Transaction and transaction history features are only available to registered users.
- Highlights, contact us and crypto data listing are available for all the viewers.

### 5. Crypto Listing:

- This feature provides various currency options to the user in which the user can convert the prices of all the cryptos listed down in the main dashboard.

### 6. Contact Us tab:

- If a user has any questions or queries, they can directly contact the admin by filling out a simple Contact Us form on our site.

### 7. API Integration for Real-Time Data:

- Employed the CoinMarketCap API to dynamically retrieved real-time crypto market data, ensuring the platform's insights were constantly updated.

### 8. Highlight Section on Homepage:

- Within the index view function, two key functions, "extract\_top\_gainers\_and\_losers" and "extract\_recently\_added," were implemented.
- Leveraged Python's lambda functions and the sorted method, and efficiently sorted and extracted subsets based on criteria like percentage change and date added.
- Used url-namespacing to provide highlights detail page URL to the 'View More' button.

### 9. Highlights Detail Page:

- The highlights detail page extends the base.html template, includes Top Cryptocurrencies, Top Gainers, Top Losers, Most Recently Added, Trending Latest based on Volume, and Latest News.
- Models were added for FearAndGreedIndex and News and rest were calculated from API data.

- CSS design included color-coded indicators for gains and losses, responsive hover effects on cards, and shadow enhancements, contributing to a visually compelling crypto trading website.

#### **10. Interactive Visualizations with chart.js**

- The integration of the chart.js library enriched the platform with an interactive Fear & Greed Index chart, providing users with historical insights. This feature added a dynamic and engaging element to the overall user experience.

#### **11. Payment Gateway:**

- This feature allows users to purchase and sell cryptocurrencies and NFTs. It utilizes stripe.js to validate cards and confirm successful or failed payments. Upon a successful transaction, users are redirected to their transaction history. In the event of a payment failure, they are redirected back to the same buying page to try again.

#### **12. User Holdings:**

- The User Holdings feature displays the cryptocurrencies and NFTs purchased by a logged-in user. It enables users to sell their owned cryptos and NFTs. There's a functionality that ensures users can sell a minimum of one item and up to the maximum number of items they've bought, validating the selling process.

#### **13. Community Page:**

- Dive into dynamic discussions on our Community Page! Witness the pulse of real-time conversations with recent comments, user names, and dates. Engage, share, and connect within our vibrant online community.

#### **14. My Profile Page:**

- Your hub for personalization! Manage your contributions with ease—view, edit, or delete comments. Update your profile details, control privacy settings, and track engagement metrics. Your online identity, your way.

#### **15. Profile List Page:**

- Discover the diverse tapestry of our community on the Profile List Page. Seamlessly explore and connect with users based on various criteria. With sorting options, search functionality, and informative previews, building connections has never been more accessible.

**GitHub Link -** <https://github.com/italiya07/CoinEx/tree/main>