



# Crypto Trading Simulator

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# PROJECT IDEA

## **Project summary**

The project consists of creating a web application for trading crypto currencies in a virtual environment. The web app combines the real life crypto trading market with a risk free way to learn and experience crypto trading first-hand and comparing your skills with friends.

## **Functionality**

When opening an account, the user receives a virtual starting amount and can freely divide and invest this amount. The user is presented detailed graphs of the current exchange rates of the most common cryptocurrencies. When investing, the value of each users investment is computed and displayed live in US dollars according to the current exchange rates. There will also be a scoreboard, ranking users by the revenue they generated, thereby enabling users to compare their trading skills.

## **Basic concept of the architecture**

The web app will be created with Node.js/Express, React and MongoDB as a MERN stack. All account information (login data, account balance, crypto currencies in the portfolio, trading history) as well as the historical data of the respective crypto currencies will be stored in a MongoDB database. The live cryptocurrency exchange data will be provided by the CoinLore API. The backend receives the raw market data, stores it in the database and will pre-render most of the live statistics and calculate the users earnings regularly. This guarantees a smooth user experience and a seamlessly integrated user interface displaying live data in a dashboard-like fashion.

