NANYANG TECHNOLOGICAL UNIVERSITY
SINGAPORE

School of Computer Science and Engineering
College of Engineering

AI Empowered Finance – Next Generation Trading System

Using Artificial Intelligence for Quantitative Trading

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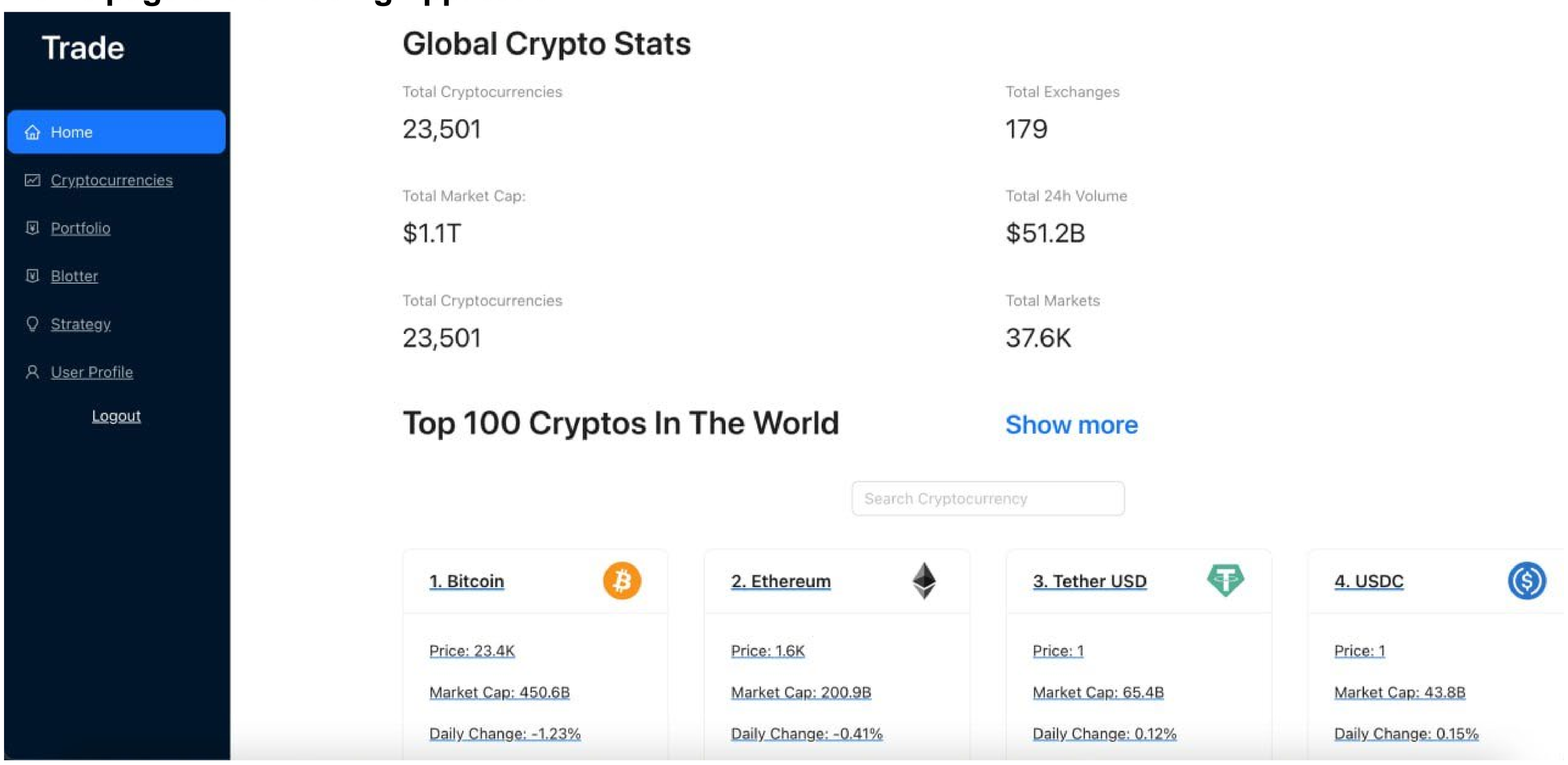
Home page of the Trading Application



Project Objectives:

The objective of this project is to design and develop a cryptocurrency trading application that allows users to input their own trading strategies. The application will utilize these strategies in conjunction with the smart routing algorithm, reinforcement learning and order resolver to execute the trades suggested by the strategies.

In addition to the feature of inputting strategies and executing trades with a smart routing algorithm and order resolver, the application also includes basic functionality such as user registration and login, viewing user profile, viewing cryptocurrencies details and viewing strategies.

Strategy page of the Trading Application

Approaches:

Reinforcement learning can be used for portfolio management, enabling investors to hold multiple financial assets and periodically reallocate them for maximum long-term profits. Through reinforcement learning, the optimal percentage weightings for each stock in a portfolio can be determined, allowing traders to reallocate their portfolio at advantageous prices and reduce trading costs.

When adjusting portfolios, investors must execute orders to buy or sell shares, which can be done using smart order routing, an automated process that seeks to find the best trading opportunities across different venues.