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Manual

Easter trading game guide

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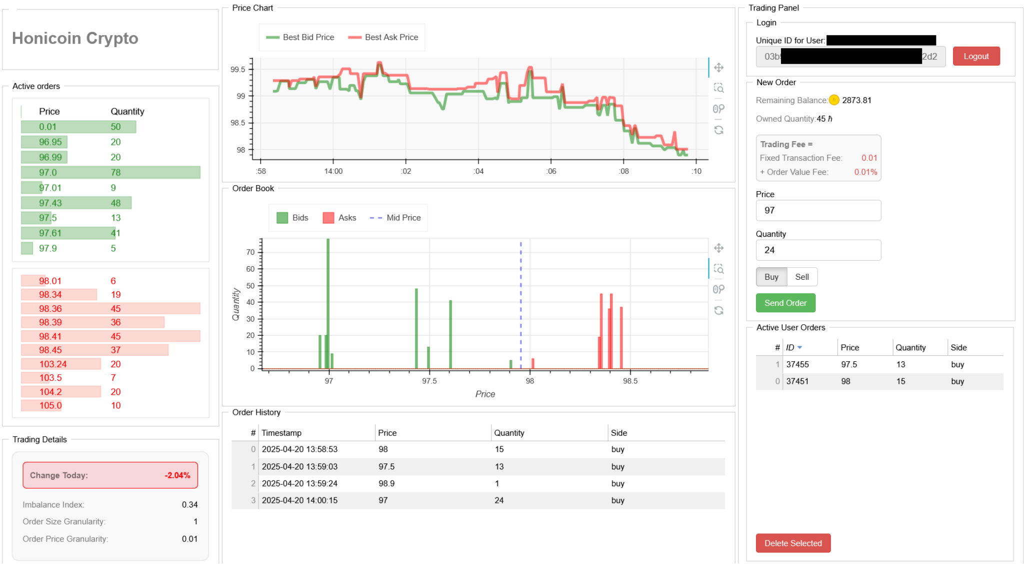
Welcome to Honicoin Crypto

Welcome to **Honicoin Crypto**, your hands-on trading simulator designed to give you a realistic experience of market mechanics. This guide will walk you through the different components of the interface and how to place, manage, and understand trades.

Before diving into the exciting world of stock trading, you'll need to register with us. To begin, simply provide your email and set up a password. Make sure to choose a password you can remember, as there is no password recovery option available. Also, remember that the email you provide is important—your trading results will be sent to that email. So, please ensure that it is a valid email address that you have access to!

Interface Overview

The simulator interface is divided into several panels, each offering critical trading information, as shown in Figure 1.



Honicoin Crypto

Active orders

Price	Quantity
0.01	50
96.95	20
96.99	20
97.0	78
97.01	9
97.43	48
97.5	13
97.61	41
97.9	5
98.01	6
98.34	19
98.36	45
98.39	36
98.41	45
98.45	37
103.24	20
103.5	7
104.2	20
105.0	10

Trading Details

Change Today: -2.04%

Imbalance Index: 0.34

Order Size Granularity: 1

Order Price Granularity: 0.01

Order History

#	Timestamp	Price	Quantity	Side
0	2025-04-20 13:58:53	98	15	buy
1	2025-04-20 13:59:03	97.5	13	buy
2	2025-04-20 13:59:24	98.9	1	buy
3	2025-04-20 14:00:15	97	24	buy

Trading Panel

Login

Unique ID for User: [redacted]

03b[redacted]2d2 Logout

New Order

Remaining Balance: 2873.81

Owned Quantity: 45 ℏ

Trading Fee =
Fixed Transaction Fee: 0.01
+ Order Value Fee: 0.01%

Price: 97

Quantity: 24

Buy Sell

Send Order

Active User Orders

#	ID	Price	Quantity	Side
1	37455	97.5	13	buy
0	37451	98	15	buy

Delete Selected

Figure 1: Overview of the Honicoin Crypto simulator interface, showing the various panels containing trading information.

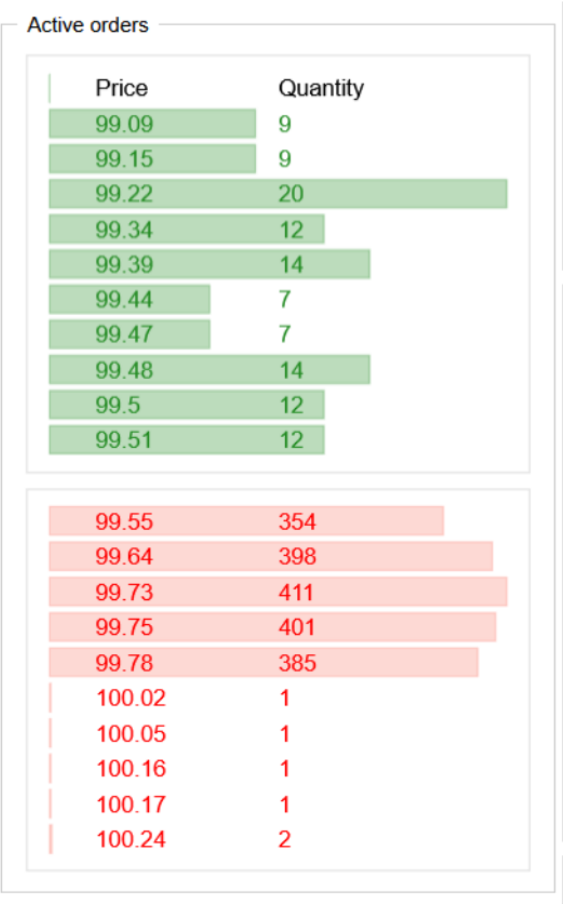
Active Orders (Left Panel)

This panel displays all current **buy (green)** and **sell (red)** orders. It provides an overview of the market's ongoing activity, showing the prices and quantities at which buyers and sellers are willing to transact. An example of this is shown in Figure 2.

- **Price**: The price per stock unit that is being offered by buyers and sellers.
- **Quantity**: The number of shares available at the specified price.

Buy orders (green) are the prices at which buyers are willing to purchase stocks. **Sell orders** (red) are the prices at which sellers are willing to sell their stocks.

Bid price refers to the highest price that buyers are willing to pay for a stock. **Ask price** refers to the lowest price that sellers are willing to accept for a stock.



Active orders

Price	Quantity
99.09	9
99.15	9
99.22	20
99.34	12
99.39	14
99.44	7
99.47	7
99.48	14
99.5	12
99.51	12

99.55	354
99.64	398
99.73	411
99.75	401
99.78	385
100.02	1
100.05	1
100.16	1
100.17	1
100.24	2

Figure 2: Active Orders

Price Chart (Top-Center Panel)

The price chart displays real-time market data, showing the movement of stock prices over time. The chart includes:

- **Green Line**: The Best Bid Price, which is the highest price buyers are offering for the stock.
- **Red Line**: The Best Ask Price, which is the lowest price sellers are willing to accept for the stock.

An example of the price chart is shown in Figure 3.

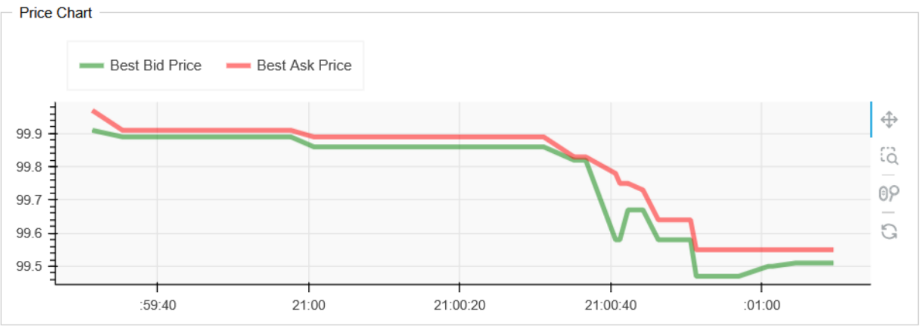


Figure 3: Price Chart

Use this chart to track market trends and to time your entries and exits into the market. The closer the bid and ask prices are to each other, the higher the liquidity in the market, meaning it is easier to buy and sell shares quickly.

Order Book (Center-Lower Panel)

The Order Book shows a visual representation of all current buy and sell orders:

- **Green Bars**: Represent Buy Orders (Bids), showing the volume and price at which buyers want to purchase.
- **Red Bars**: Represent Sell Orders (Asks), showing the volume and price at which sellers want to sell.
- **Blue Dashed Line**: Represents the Mid Price, which is the average price between the Best Bid and Best Ask.

Figure 4 shows the layout of the Order Book, highlighting the buy and sell orders along with the Mid Price.

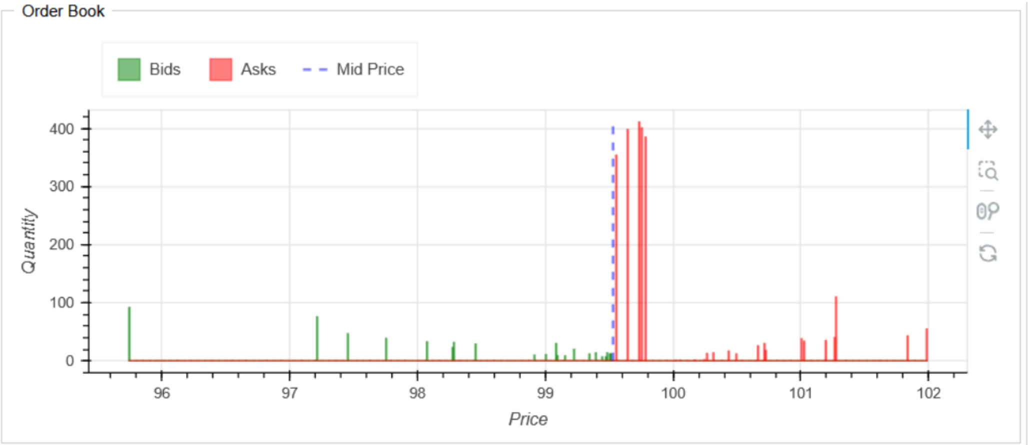
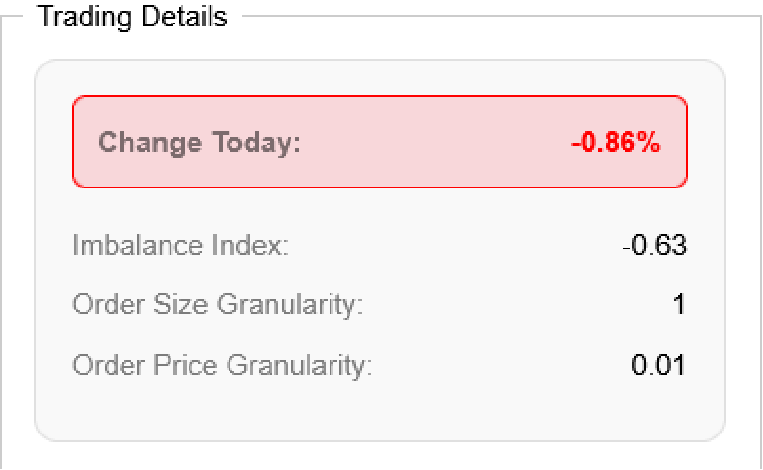


Figure 4: Order Book

The Order Book helps you understand the market depth, indicating how much stock is available at different price levels.

Trading Details (Bottom-Left Panel)

This section provides quick stats that help you assess the current market conditions, as shown in Figure 5:



Trading Details

Change Today:	-0.86%
Imbalance Index:	-0.63
Order Size Granularity:	1
Order Price Granularity:	0.01

Figure 5: Trading Details

- **Change Today**: This shows the percentage change in the stock price from the start of the day. It reflects how much the price has increased or decreased.

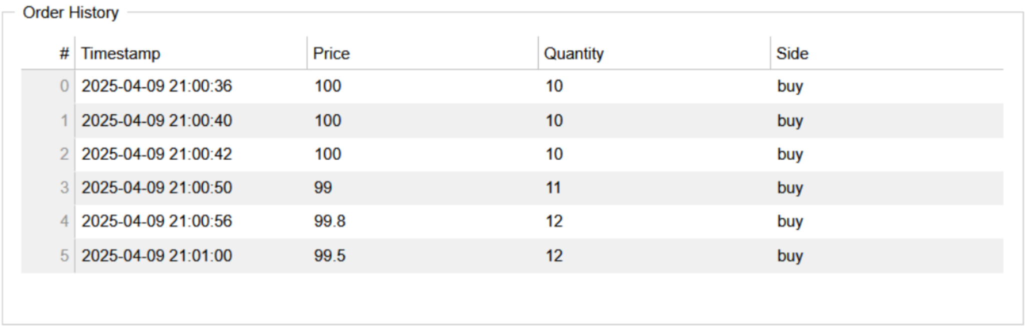
- **Imbalance Index**: This metric measures the imbalance between buy and sell orders. A positive imbalance indicates that there are more buy orders than sell orders, while a negative imbalance indicates more sell orders.

- **Granularity Settings**: This defines the level of precision with which prices and order quantities can be set within the simulator. It determines how finely you can adjust prices and quantities when placing orders.

Order History (Bottom-Center Panel)

This section logs the details of recent trades that have been executed, allowing you to review past transactions and gain insight into recent market activity. As shown in Figure 6, the Order History displays the most recent trades, including the time of execution, price, and quantity of shares traded.

Note that the Order History is only available for the current session and will be cleared upon page refresh. It is not stored permanently, so if you refresh or close the page, the history will be reset.



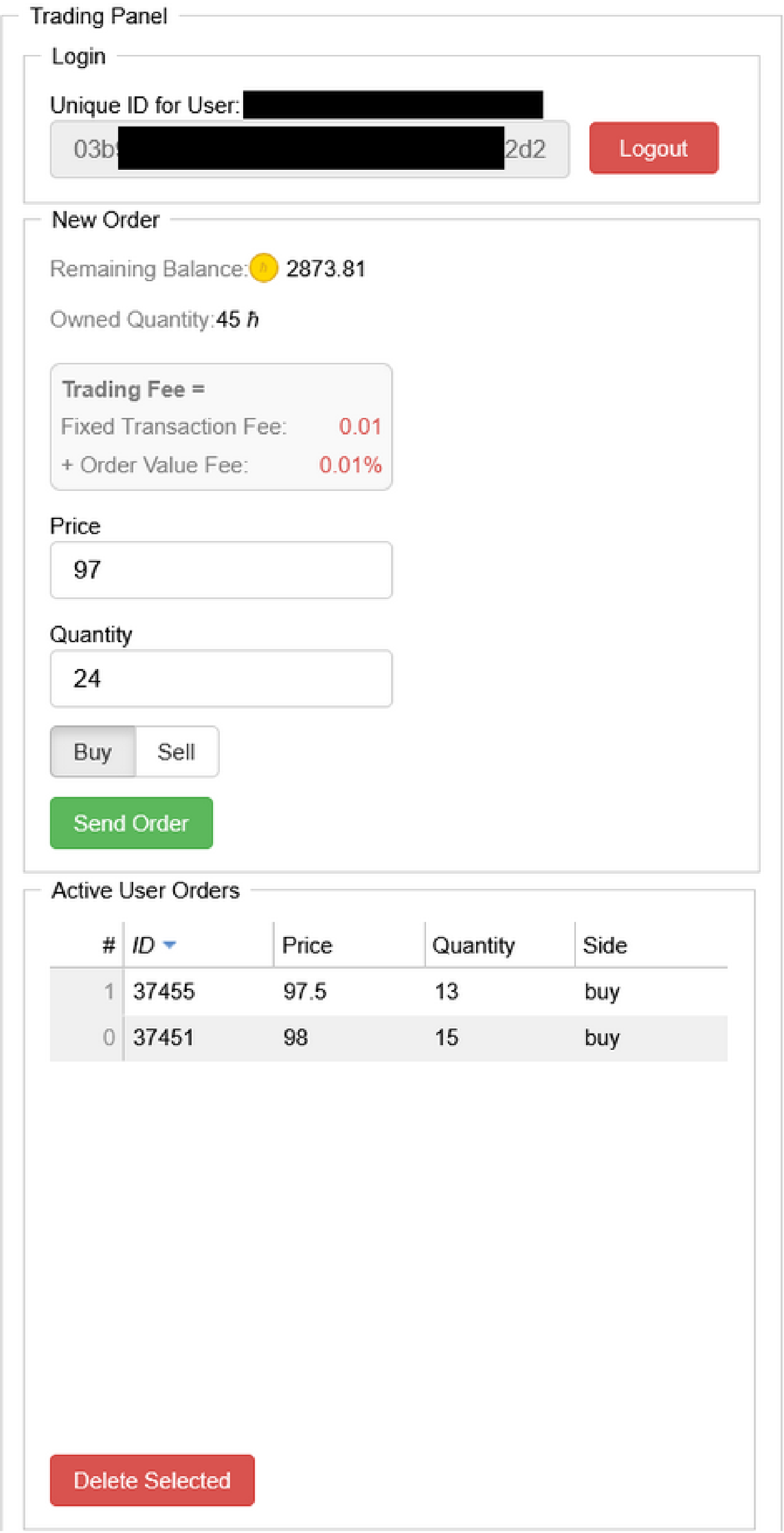
Order History

#	Timestamp	Price	Quantity	Side
0	2025-04-09 21:00:36	100	10	buy
1	2025-04-09 21:00:40	100	10	buy
2	2025-04-09 21:00:42	100	10	buy
3	2025-04-09 21:00:50	99	11	buy
4	2025-04-09 21:00:56	99.8	12	buy
5	2025-04-09 21:01:00	99.5	12	buy

Figure 6: Order History

Trading Panel (Right Panel)

This section contains the tools needed to interact with the market, including your account details, balance, and the ability to place new orders. As shown in Figure 7, you can use this panel to manage your trades, track your balance, and enter new orders.



Unique ID for User: [redacted]

03b[redacted]2d2

Remaining Balance: ħ 2873.81

Owned Quantity:45 ħ

Trading Fee =	
Fixed Transaction Fee:	0.01
+ Order Value Fee:	0.01%

Price: 97

Quantity: 24

#	ID	Price	Quantity	Side
1	37455	97.5	13	buy
0	37451	98	15	buy

Figure 7: Trading Panel

Login

Displays your **Unique User ID**, which is used to track your trading activity. It can be used for algorithmic trading via the **Python** client (which will be explained later). Keep your ID secure to ensure the safety of your trading activities and account data.

Account Stats

This panel shows:

- **Balance**: The amount of funds remaining in your account.
- **Owned Quantity**: The number of stocks you currently hold in your portfolio. Remember, you cannot sell stocks you do not own. Ensure that you have sufficient shares in your portfolio before attempting to place a sell order.

New Order Section

To place a trade, follow these steps:

1. Enter the **Price** at which you wish to buy or sell.
2. Enter the **Quantity** (number of shares) you wish to buy or sell.
3. Select whether you want to **Buy** or **Sell**.
4. Click **Send Order** to place the trade.

Fees: Please note that each trade incurs fees, which are calculated based on various factors such as the transaction amount and the number of shares involved. Be sure to review the fee structure before placing trades.

Active User Orders

This section displays all your currently open orders that have not yet been executed. Each order is shown with the following details:

- **ID**: A unique identifier assigned to each order for tracking purposes. This helps you distinguish between multiple orders in case you need to make adjustments or cancellations.

- **Price**: The price at which you have set the order to be executed. This is the price you are willing to buy or sell the stock for. Orders will remain open until the market price matches your set price, or until you decide to cancel them.

- **Quantity**: The number of shares you wish to buy or sell at the specified price. This represents the amount of stock being offered or sought at that price. If the order is partially filled, the remaining quantity will stay open and continue to be active until it is fully executed or cancelled. The quantity will decrease as parts of the order are filled, but the order will remain active as long as there is any remaining quantity.

- **Side**: Indicates whether the order is a **Buy** or a **Sell** order. A buy order means you are looking to purchase stock at the specified price, while a sell order means you are offering your stock for sale at that price.

You have the ability to manage your open orders directly from this section. If you wish to cancel an order, simply select the order from the list and click on the **Delete Selected** button. This will remove the order from the system, and it will no longer be active in the market. It is important to review your open orders regularly to ensure that they align with your trading strategy and current market conditions.

Tips for Using the Simulator

- **Set Realistic Price Targets**: Establish clear price targets based on technical analysis or market sentiment. Set buy orders slightly below the current price in anticipation of a dip, or place sell orders above the current price if you expect a rally. Avoid chasing prices too aggressively, as this can lead to unfavourable entry points.

- **Start Small and Learn Gradually**: Begin with small trades and gradually increase your exposure as you gain experience. The simulator is a great way to practice, but real success comes with understanding the mechanics of trading over time. Patience is key.

- **Stay Calm and Patient**: The market can be volatile, and price movements can happen quickly. Stay calm and avoid making impulsive decisions based on short-term fluctuations. Sometimes, it's best to wait for confirmation before acting, rather than rushing into trades.

Using the Python Client

To interact with the Honicoin Crypto trading simulator programmatically, you can use the **Python** client provided in the official repository. This client enables you to develop and run your own algorithmic trading strategies.

Cloning the Repository

First, clone the **git** repository to get the **Python** client:

```
user@computer: $  git clone https://github.com/Jivl00/
Exchange_simulator_for_the_limit_order−driven_market
user@computer: $
```

Note: Please copy the URL directly from here rather than from the console above, as the formatting in the console view may corrupt some symbols.

`https://github.com/Jivl00/Exchange_simulator_for_the_limit_order-driven_market`

Feel free to browse the entire codebase, especially the `src/client/agents` directory, which contains example algorithmic traders. These example agents can serve as templates for building your own trading strategies.

Installing Dependencies

Next, install the required **Python** packages using `pip`:

```
user@computer: /Exchange_simulator_for_the_limit_order-driven_market$
    pip install −r requirements.txt
```

Implementing an Algorithmic Trader

To implement your own trading strategy, you need to define a custom class that inherits from the *AlgorithmicTrader* base class, located in `src/client/algorithmic_trader.py`.

At a minimum, your class must implement the following two methods:

- **handle_market_data(self, message)** – Processes incoming market data (order book updates).
- **trade(self, message)** – Makes trading decisions and places or modifies orders.

Here's a high-level overview of what each method does:

handle_market_data is called automatically whenever new market data arrives. It gives you access to the live order book and other market signals. You can use this method to analyze price trends, update internal state, or compute indicators that support your strategy.

trade is called automatically to allow your agent to place, cancel, or modify orders. You can use utility methods like `compute_quantity()`, `put_order()`, `delete_order()`, and `modify_order()` to safely interact with the market.

> To get started, navigate to the `src/client/agents` directory of the repository. There you'll find an example agent file (`example_trader.py`) that provides a ready-to-edit template. This file demonstrates the required structure and shows how to initialize and run your custom trader.

To enhance your trading logic, you can leverage various built-in tools and indicators provided by the `AlgorithmicTrader` base class — such as mid-price calculations, order management utilities, and basic performance tracking. For a gentle introduction, start by exploring the `range_trader.py` example in the `src/client/agents` directory. It's the simplest strategy and a great foundation for understanding the client structure. From there, you can move on to more advanced agents for inspiration and ideas.

Running Your Algorithmic Trader

Once your algorithmic trader is implemented and configured, you can run the Python client from the `src` folder:

```
user@computer: /Exchange_simulator_for_the_limit_order-driven_market/src$ python example_trader.py
```