

# Developing an Auto Trader

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A dark blue diagonal gradient bar that starts from the bottom left and extends towards the top right, covering the lower half of the slide.

# Project Introduction



- Trading Application with the ability to simulate trading manually or automatically based on user defined strategies
- Receives live data via Rest API and logs data using in a csv file
- Interactable GUI
  - View net worth, current profit, active trade profit
  - Manually open and close trade
  - Start and stop Auto Trading
  - Change leverage
  - and more



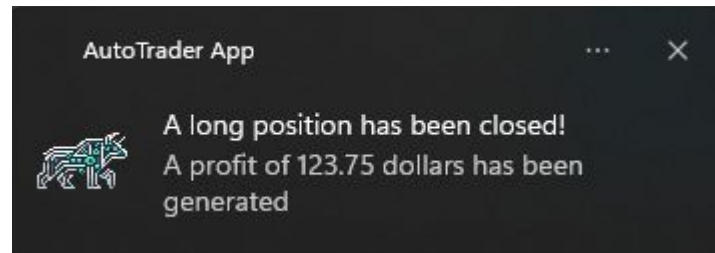
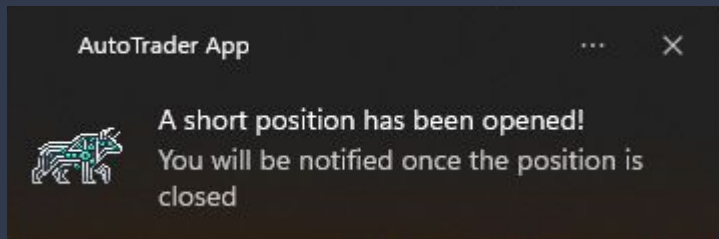
# Strategies

- Users are able to implement their own strategies to back test
- Requires Python programming knowledge
- Requires some programming knowledge to add new indicators
- Manuals have been created

```
if short_sma > long_sma:  
    self.last_higher = self.current_higher  
    self.current_higher = "short"  
elif short_sma < long_sma:  
    self.last_higher = self.current_higher  
    self.current_higher = "long"
```

# Notifications

- Notifies users when manual and automatic trades are opened
- done using windows notifications, including pop up and sound
- Gives user essential information about the outcome of the trade, once it has been closed



# Taapi.IO API



- Taapi is a free API for trading indicators and data
- Updates every 15 seconds and can be upgraded for shorter intervals
- Use 2 API keys to get live indicator data and live price data

A screenshot of a 'Launch Settings' dialog box. The dialog has a title bar with a feather icon, the text 'Launch Settings', and standard window controls (minimize, maximize, close). The main area contains two text input fields labeled 'API Key 1:' and 'API Key 2:'. Below these fields is a button labeled 'Launch App'.

# What has changed?

- No implementation of connection to broker
  - Hard to test without losing money
- Hard to find profitable strategies after fees
- No implementation of strategy creator
- GUI looks different than planned
  - Not as many options in tkinter
- Only implemented Crypto (no stocks/ETFs/etc.)
- Haven't implemented a way to test strategies on historical data

# Further Plans

- Finish up final documentation
- Implementing unit tests
- deploying the application (optional)



# Potential additions and features for the future

- Ability to scale size and capability of the auto trader with subscriptions within the API
- Ability to modify strategies within the application, without needed Python knowledge
- Build upon the current GUI with a different library or extension of tkinter
- Add the ability to view and purchase a variety of assets rather than a single one at one time

The screenshot shows the taapi.io website's pricing page. The navigation bar includes links for Home, News, Pricing (active), Indicators, Exchanges, Docs, and Log in, along with a 'Free API key' button. The pricing section is divided into four columns representing different subscription tiers.

Free	Basic	Pro	Expert
<ul style="list-style-type: none"><li>✓ All indicators</li><li>✓ 5,000 calls / day</li><li>✓ Limited Binance data @</li></ul>	<p>\$9.99 / month with a 7-day free trial</p> <ul style="list-style-type: none"><li>✓ All indicators</li><li>✓ 25,000 calls / day</li><li>✓ Crypto data real-time and historical</li><li>✓ 1 symbol per API request</li><li>✓ Historical data 50 candles back using <a href="#">results</a></li><li>✓ Best effort support</li></ul> <p>7-day Free Trial</p>	<p>\$19.99 / month with a 7-day free trial</p> <p>Most popular</p> <ul style="list-style-type: none"><li>✓ All indicators</li><li>✓ 150,000 calls / day</li><li>✓ US Stocks – real-time and historical</li><li>✓ Indexes (SPY, QQQ, DJIA)</li><li>✓ Crypto data real-time and historical</li><li>✓ 3 symbols per API request</li><li>✓ Historical data 300 candles back using <a href="#">results</a></li><li>✓ Priority support</li></ul> <p>7-day Free Trial</p>	<p>\$29.99 / month</p> <ul style="list-style-type: none"><li>✓ All indicators</li><li>✓ 400,000 calls / day</li><li>✓ US Stocks – real-time and historical</li><li>✓ Indexes (SPY, QQQ, DJIA)</li><li>✓ Crypto data real-time and historical</li><li>✓ 10 symbols per API request</li><li>✓ Historical data 2000 candles back using <a href="#">results</a></li><li>✓ Priority support</li></ul>

At the bottom of each tier column is a button: 'Add to cart' for Free, and 'Select options' for Basic, Pro, and Expert. A chat icon is visible in the bottom right corner of the Expert tier column.



# Demo

