

Intro : Creating a Real Chat GPT-4o trading algorithm in MetaTrader 5

GPT-4o-mini REQUEST:

- Financial news articles,
- Key financials and
- Chart screenshots
- PROMPT / Question: "Analyse this stock and give a signal ".

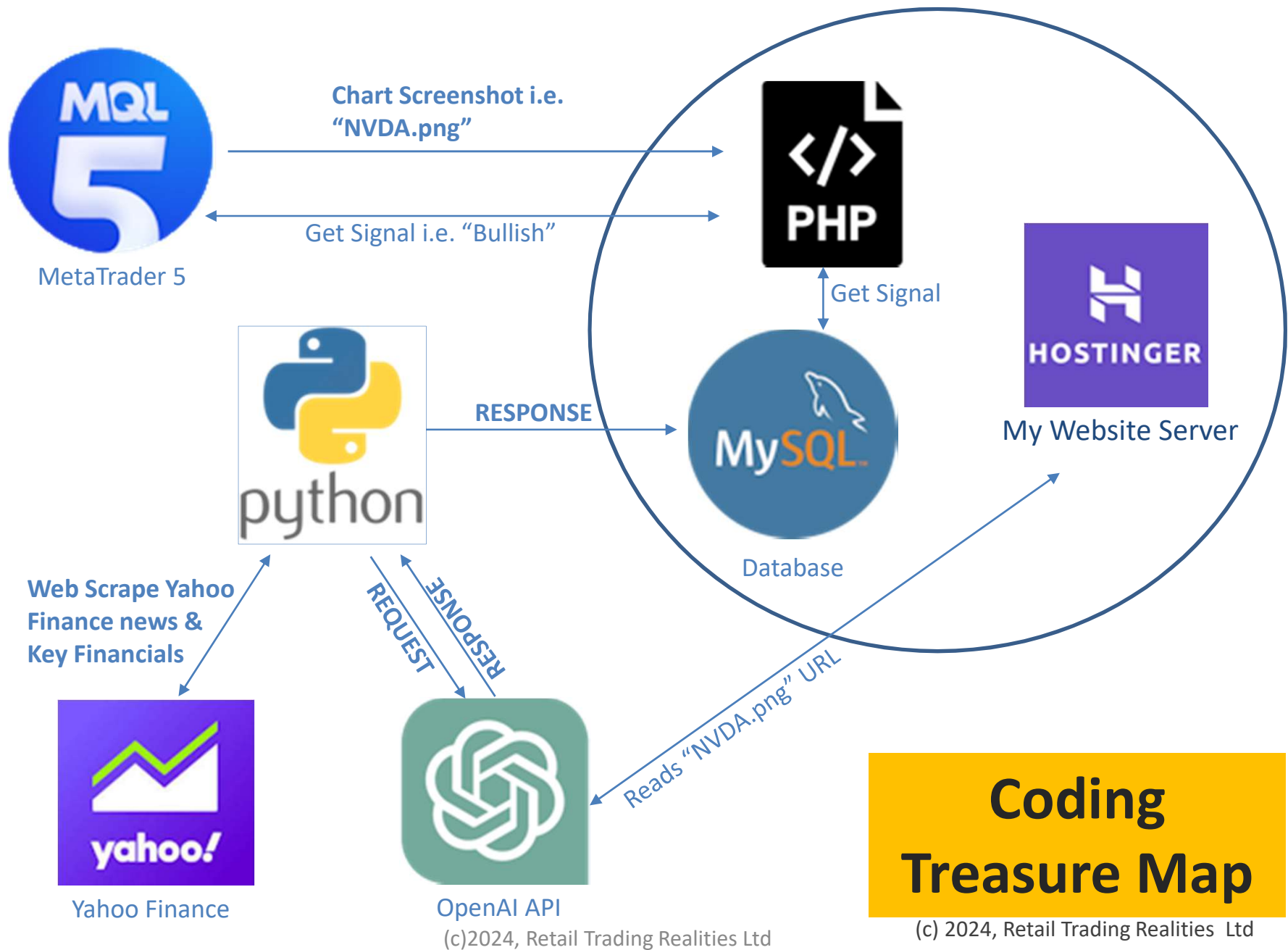
GPT-4o-mini RESPONSE:

- 250 word summary,
- and a signal ;
 - "Bullish"
 - "Bearish"
 - "Flat"
 - "Close-All".



4 programming Languages:





**Coding
Treasure Map**

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RTR Ltd GitHub

Retail Trading Realities Ltd GitHub Repository at

https://github.com/RetailTradingRealities/GPT-4o_Expert_Advisor_MT5

and on my website blog

<https://momentum-trend.com/blog>

Do I need to know how to code?

@FreeCodeCamp YouTube,

>>SPEED WATCH>> Courses on C++, Python, PHP

- ✓ Variables Types: Strings/Chars, integers, doubles/floats(decimals),
- ✓ list/arrays,
- ✓ tuples, dictionaries, importing modules.
- ✓ functions,
- ✓ for loops, while loops, iterations ,
- ✓ Booleans .

Don't need : 

- **Classes, Inheritance, Polymorphism, References etc....**

Use Poe.com 4 Chat-GPT, Llama , & Claude

Course Structure 1/2

1. Installing Python, VSCode to Windows OS (Windows 2022 Server)
2. Setting up a python virtual environment for our project folder (#Python)
3. Web Scraping Yahoo News (#Python)
 - News Articles & Key Financials (Income Statement, Cash Flow Statement)
 - Save to txt file .
4. Automatically upload a Chart Screenshot from Metatrader 5 to Website (#MQL5, #PHP)
 - You cannot upload image files to Chat GPT API, it can either read image in binary or download image URL.

Course Structure 2/2

5. Send saved news articles Data and Images to Chat GPT4 API for analysis via Web HTTP REQUEST (#Python).
6. Receive a RESPONSE from Chat GPT and store that in a MySQL/MariaDB SQL Database (#Python, #SQL).
7. Turn All Python code into app executable .exe file, to run on any MS Windows based OS, such as a VPS server 24/7 (#Python) .
8. MetaTrader 5 to access our `stock_analysis` MySQL database for signals "Bullish"/"Bearish"/"Flat"/"Close-All" (#MQL5 , #PHP)
9. Chat GPT EA that Buys /Sells signals from our Database (#MQL5)

Section 1

Install python to Windows OS

- <https://www.python.org/downloads/windows/>

Install Visual Studio Code

- <https://code.visualstudio.com/download>

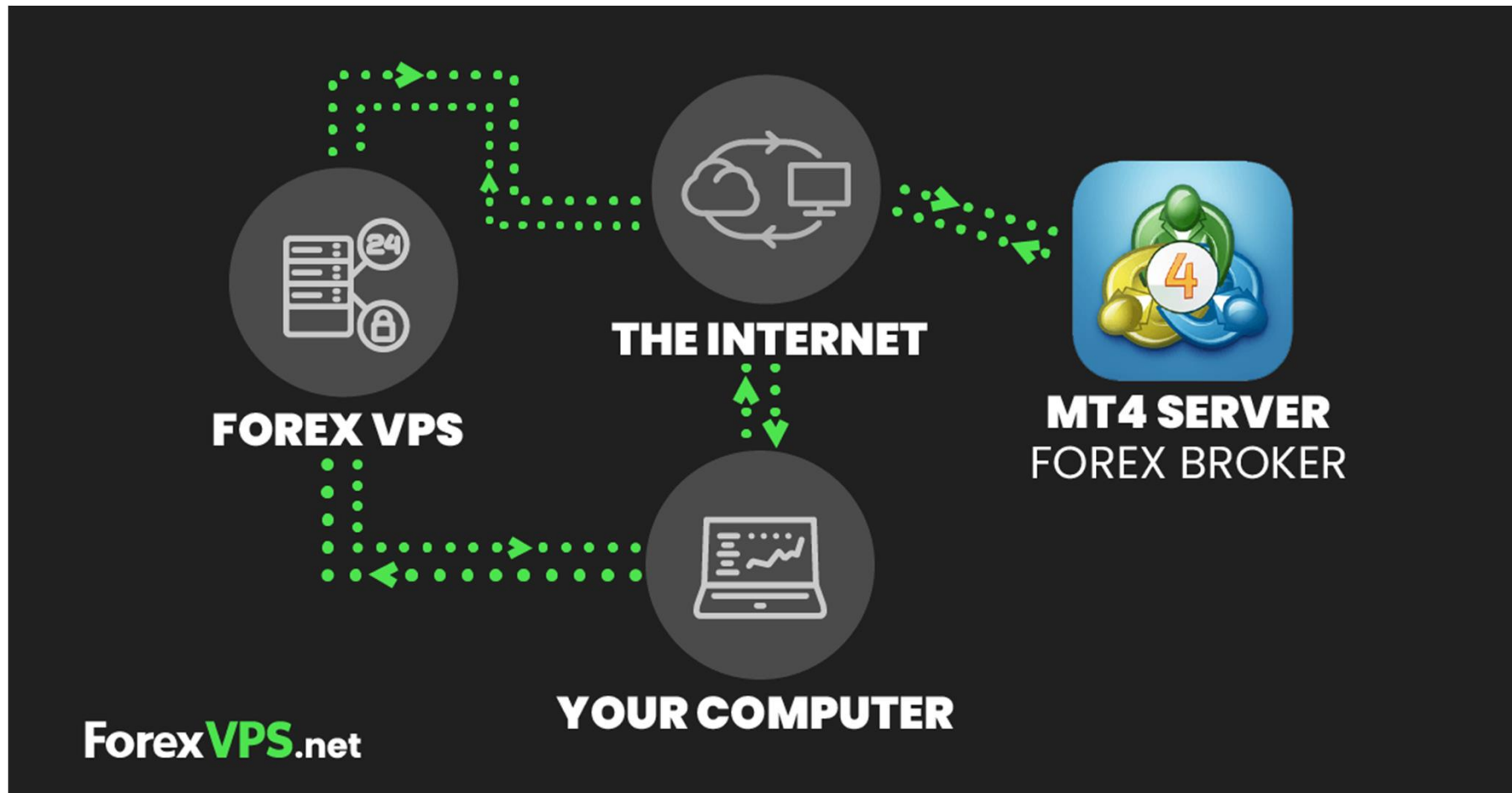
ForexVPS.net Windows 2022 OS

The logo for ForexVPS.net, featuring the text "ForexVPS.net" in white and green on a black rectangular background.

- <https://www.forexvps.net/partner/retailtradingrealities>

- Low Latency
- Windows 2022,
- Intel Xeon 2 core CPU,
- RAM 2 GB
- SSD 60 GB

Windows 2022 Server



Section 2

- Python Virtual Environment (venv)
- <https://www.freecodecamp.org/news/how-to-setup-virtual-environments-in-python/>

1) pip install virtualenv

2) python<version> -m venv <virtual-environment-name>

3) Activate :

env\Scripts\activate.bat //In CMD PROMP

env\Scripts\Activate.ps1 //In Powershell

3) Deactivate by “deactivate”

e.g “python3.13 -m venv env”

The ‘env’ part you can rename it ‘elephants’ instead .

Section 3

Web-scraping Yahoo Finance News articles using the python Selenium module

- <https://googlechromelabs.github.io/chrome-for-testing/#stable>
- Install Google Chrome
- Pip install selenium
- <https://www.selenium.dev>

Web-scraping Yahoo Finance Key Financials using the Pyfinance module

- Pip install yfinance
- <https://pypi.org/project/yfinance/>

Section 4

- MetaTrader 5 upload Chart Screenshot .png image to website server, so later on OpenAI API can access it from URL.
- Create an Expert Advisor that sends images as a binary via Http Request to PHP file
- PHP file converts binary file to .png image, uploads .png to server .
- Download MT5 and Meta Editor IDE

MT5 Brokers

- <https://momentum-trend.com/brokers>



- <https://www.ictrading.com/?camp=78992>
- <https://icmarkets.com/?camp=78875>
- <https://teletrade.org/32250mp1jof0>
- <https://www.vantagemarkets.com/forex-trading/forex-trading-account/?affid=MTYyNDc2>

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(information correct on 22 Nov 2024)



Section 5

Send our News Articles, Key Financials and png image to OpenAI API (Chat GPT) for analysis via HTTP Request in Python.

Create OpenAI account:

<https://platform.openai.com/docs/overview>



API documentation:

<https://platform.openai.com/docs/api-reference/authentication>

- *pip install requests*
- *pip pymysql*
- *pip install OpenAI*

Section 6

Store RESPONSE from Chat GPT into a MySQL, MariaDB database

- MariaDB is a FORK of MySQL.
- For MySQL copy and paste file in **MySQL Folder** inside **Python_Code** folder
- Set up new SQL database in Hostinger website Hpanel Database Management

Section 7

Create an app .exe file using Pyinstaller module, run program for multiple stock symbols at a time.

- main.py
- Pip install pyinstaller
- pyinstaller **main.py** --onefile --windowed
- Windows Scheduler to run .exe file 3 times a day Mon-Fri .