StockMarket.et

Cohort 3 Internship Program
Week 3: Crypto Asset Management Platform
Task1: Exploring Exchange API & Data Collection

1. Project overview

This project aims for inters to be able to see what an operating exchange looks like, how to connect to an exchange API, how to select different assets to invest, and understand how technical indicators work and how to back test the effectiveness of different trading strategies. So that you can make the best decision while investing.

1. Project Planning

- Tasks
  - Connection with crypto exchange (This week's task)
  - Portfolio construction and optimization
  - Exploratory Data Analysis (EDA): for technical indicators
  - Back testing strategies
  - Dashboard development

2. Deliverables and Tasks to be done

- Create a GitHub repository that you will use to host all the code.
- Create at least one new branch called "task-1" for your analysis
- Perform the following tasks:
- Create a connection with the Binance Futures Testnet API:
  - Script to get all the contracts or symbols from the API
  - From the list, try to select at least 30 different symbols that you will use for your analysis later on. Download historical data for these symbols using the starter code provided below.
    - The selection process should be clear and justifyable.
  - Write a script to make orders and cancel orders.
    - Verify the functionality of your script by attempting to place an order and confirming its validity on the [Binance futures demo trading platform](#)
  - You can utilize the starter code to retrieve historical candlestick prices. Ensure to download at least 3 years' worth of historical data, essential for conducting future analyses.
  - While the example code illustrates one approach, feel free to employ alternative methods to gather your historical price data, ensuring it includes open, high, low, close, volume, and timestamp information.

Resources:

- [Example code for getting historical candlestick data.](#)
- [Difference between spot and futures trading](#)
- [Binance futures demo trading platform](#)
- Binance APIs:
  - [spot testnet API](#)
  - [Futures testnet API](#)

Deliverables:

- A blog post entry (which you can submit, for example, to Medium Publishing) or a pdf report.
  - The PDF report should include, at a minimum, your understanding of spot and futures trading, the source of the API from which you collected your data, any encountered challenges, and the rationale behind your selection of symbols for download. And the link to your GitHub
- Link to your GitHub code.

Suggested folder structure for the project:

```
├── .streamlit/
│   └── config.toml
├── .gitignore
├── requirements.txt
├── README.md
├── src/
│   ├── __init__.py
├── app/
│   ├── __init__.py
├── notebooks/
│   ├── __init__.py
│   └── README.md
├── tests/
│   ├── __init__.py
└── scripts/
    ├── __init__.py
    └── README.md
```