1. **Collecting data**

|  |  |  |
| --- | --- | --- |
| Options |  | Extras |
| Bionance API | Needs registration  There is a limit of **300 connections per attempt every 5 minutes**. | Supports WebSocket |
| CoinCap API | Doesn’t need registration  Limitations:  Free Tier (No API Key)   * 200 requests per minute * 11 years historical data   Free Tier (API Key)   * 500 requests per minute * 11 years historical data | Supports WebSocket |

There is no need to go for web scraping.

Let us start with three crypto coins:

* XRP:Ripple (EUR, USD)
* ETH:Ethereum (EUR, USD)
* PEPE:Pepe coin (EUR, USD)

1. **Storing data**

I would suggest to store historical data in PostgreSQL database. Do we want to store data in one table for all coins or we use one table per coin? We can always go for one table and use VIEWS to separate coins data.

We should store historical the data using the minimal data period, which is a minute. It allows us to aggregate it for longer periods like 3min, 5min, 10min, etc. by ourselves without generating additional API traffic.

I think we are not going to store streaming data. We can always do a manual request by user to update historical data (always with the smallest possible time granularity ) causing the automated model training execution.

1. **Machine learning model**

I would like to train the model based on different time periods:

* 5 min, 10 min, 15 min, etc.
* The model should be retrained automatically after historical data has been updated.

1. **Diagrams**

Ein Bild, das Diagramm, Reihe, Text enthält.

KI-generierte Inhalte können fehlerhaft sein.