Problem Statement

You've been given access to an autocomplete API running at `http://35.200.185.69:8000`. Your task is to extract ALL possible names available through this API's autocomplete system. However, there's a catch - there's no official documentation, and you'll need to discover how the API works through exploration and testing.

Requirements

1. Write a program that can efficiently extract all possible names from the autocomplete system
2. Your solution must work within the API's constraints (which you'll need to discover)
3. Document any interesting findings, endpoints, or features you discover during your exploration
4. Include your approach to solving rate limiting and other challenges you encounter

What We're Looking For

- Your systematic approach to discovering API behavior
- How you handle various constraints and limitations
- Code quality and efficiency of your solution
- Documentation of your problem-solving process

Getting Started

1. Create a code repository and set up your development environment.
2. Begin by exploring the known endpoint: `/v1/autocomplete?query=<string>`.
3. Write scripts to test and document the behavior of the API.
4. Investigate and handle any rate limiting or other constraints imposed by the API.
5. Document your findings, including any additional endpoints or features you discover.
6. Implement a solution to extract all possible names from the autocomplete system.
7. Ensure your code is efficient and well-documented.
8. Commit your code and findings to the repository regularly.

Submission

Provide:

1. Your working code solution
2. A README explaining your approach and findings
3. Any tools or scripts you created for testing/exploration

4. Total number of requests you needed to make to the API
5. Total number of records you were able to obtain from the API

Please submit the solution using [this form](#).

Good luck! Remember - the obvious solution may not be the best one.