David Seth Welborn

Retrospective

How long did the assignment take you?

The assignment took me the better part of 2 half days.

What did you find most challenging?

Since I typically do not spend much free time on social media, the nuances and quirks of reddit were new to me. A fair amount of time was spent researching and user-testing the application domain by using the conventional web interface, reading the official docs, and programmatically exploring the API.

What did you learn from this assignment (if anything)?

While working the deliverables of this assignment, I learned a few things. I've developed a new appreciation for the "batteries-included" support for "transactions" in Django. Additionally, while I was aware of generators and their relation to iterators, this was my first time knowingly utilizing generators in a meaningful way. Additionally, I was pleasantly surprised python supports constructing a list from a generator instance. Finally, while ambiguous documentation (no proper interface contract) has the benefit of not marrying developers to current implementations of an interface and subsequent backwards compatibility, this lack of documentation can be impedance for newer developers attempting to use the API.

Justify your output format

For this implementation, I exported data as json. While initially I wanted to leverage library support for latex-built pdfs, a JSON output was both faster to develop and more appropriately decoupled backend processing from data presentation. Given the widespread use, support, and adoption of JSON, that format seemed appropriate.

If you didn't finish, how far did you get?

I finished the mini project, albeit post deadline. From a functional perspective, it provides all the requested functionality. However, from a performance perspective, there is still a lot of room to optimize API calls to reduce rate-limiting. Further inspection of the API and supported batch calls for the API is needed. Additionally, some improvements to the Consumer class implementation can be made to implement sensible memoization.

What part stopped you and what did you try to get past it?

I struggled sorting the 'hot' results to select a descending list of top 10 upvoted submissions. Listing Generators, their uni directional nature, and the apparent absence of a way to sort a 'hot' Listing Generator instance was a stumbling block. I leveraged stack overflow discussions, reddit discussions, and relevant available documentation to better understand available tools. I finally resorted to trying things with a reasonable chance of success in the hopes of failing fast and learning enough to make

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better subsequent attempts. Ultimately, converting returned generators to lists and using attribute-based sorting on lists worked.