-> it would give a list of potentially useful search terms, with an option to click on a select few

-> based on the search terms selected - it will further tune the recommender system

-> businesses have an option of rating a recommendation up or down

- based on earlier search terms - one would have access to a longer list of opportunites - that would make browsing possible (right now - it looks to me - that is out of the question)

- companies could search for other relevant information - for example: which companies are applying for similar grants in their business and geographic area

[API documentation](https://open.gsa.gov/api/get-opportunities-public-api/#user-account-api-key-creation)

[Beta.SAM.gov](https://beta.sam.gov/)

\*\*Methodology:\*\*

- content based recommender system

- text vectorizer: \*bag-of-words\*, \*one-hot-encoder\*

- bag of words: extracts words from the corpus as features

- one-hot-encoder: gives a value of one if it finds a feature within a row/ text (0 to all other features)

- classifies/ recommends based on \*cosine similarities\*

\*\*Sources:\*\*

https://towardsdatascience.com/how-to-build-a-simple-recommender-system-in-python-375093c3fb7d

https://www.oreilly.com/library/view/applied-text-analysis/9781491963036/ch04.html

http://recommender-systems.org/content-based-filtering/

https://heartbeat.fritz.ai/recommender-systems-with-python-part-i-content-based-filtering-5df4940bd831

\*\*Ideas for the future:\*\*

- find database of registered businesses (business activity/ line of business)

- crossreference awardees in prior grants to provide a list of competitors