Citation generator
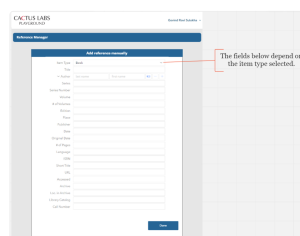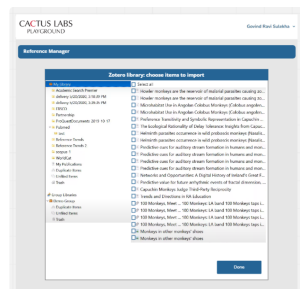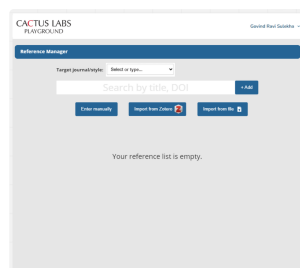
Scope

Build a citation generator that users can employ to generate citations for their research papers (both bibliography and in-text citations).

Design reference doc

Product spec doc

UI Design Flow:

These are options to reorder references (as in a Spotify queue), edit, and generate an inline citation. Each item will also include a Scite badge, if available. The option to reorder is available only for numbered citation styles.

Clicking on "Edit" opens a form like the one for "Enter manually." The item will also have an option to delete the reference.

The fields below depend on the item type selected.

Phase 1:

- Integration with Zotero
- Free search based on DOI, journal/book title and PMid

API documentation: **Z** dev:web api:v3:start   [Zotero Documentation]

- We are using Zotero API version3, which uses OAUTH v1. Also we are considering only the happy flow where we are assuming that a user already has a zotero account and a collection or library which has articles and journal papers saved in it

- When the user comes to our platform we give them the option to import their Zotero library. When the user clicks on the import Zotero library button, the user will be redirected to the Zotero login page to login to their account and generate an API key which will have the required permissions to read/ write the user's Zotero library/collection.
- Once the API key is generated the user will be authenticated using Oauth 1 token and all the items in the user's library will be displayed on our platform UI.
- We will also display a Scite badge for these items
- Based on the user's preference, we will pass the below parameters to the Zotero API to get the required citations, Bibtex, inline citations and full data for a particular item present in the user's Zotero library
  - for citations = `zot.add_parameters`(`content='bib', style='mla'`)
  - for Bibtex = `zot.add_parameters`(`content='bibtex', style='mla'`)
  - for inline citation = `zot.add_parameters`(`content='citations', style='mla'`)
  - for full text data = `zot.add_parameters(format ='json', include = 'data')`
- User can also add a new paper / article to their Zotero library/collection and generate citations by entering the DOI in the search bar or by specifying the details about the paper in the below mentioned format.
- Based on the input DOI, journal/book title and PMid(pubmedid) we will fetch the details from our Dyson DB (currently using ES query) and pass the details in the below required format to the Zotero API which in turn will add a new item to user's library

```
1  new_item = {'itemType': 'journalArticle',
2             'title': 'GPT-4 Technical Report',
3             'creators': [{'firstName': 'OpenAI', 'lastName': '', 'creatorType': 'author'}],
4             'publicationTitle': 'Journal of New Articles',
5             'date': '2023',
6             'volume': '1',
7             'pages': '1-10',
8             'DOI': '2303.08774'}
```

Observations:

- Zotero API cannot be used to get citations just based on the DOI cause it requires the API key and user ID for the same. So if the user has no Zotero account they will need to first sign up and create a collection
- If the user does not have a Zotero account, they will not be able to use the Zotero API to access their library or perform any operations on it. They will need to create a Zotero account and provide their API key to authenticate their requests.
- Zotero uses CrossRef API internally for resolving DOI identifiers to retrieve bibliographic metadata such as titles, authors, publication dates, and other details about the publication. When you import a reference into Zotero using a DOI, it automatically fetches the metadata using the CrossRef API. This metadata can be used to generate citations, build bibliographies, and perform other operations within Zotero.
- Zotero uses citeproc-js library internally to format citations and bibliographies. Citeproc-js is a JavaScript library that implements the Citation Style Language (CSL) and is used to format bibliographic data in Zotero. The library provides support for more than 8,000 citation styles and is actively maintained by the Zotero development team. When you generate a bibliography or citation in Zotero, the library calls the citeproc-js library to format the output according to the selected citation style.
- The Zotero API `q` parameter searches only based on the phrases and not on DOI and that should be present in the library or else if the library is empty the result is 0
- Zoterobib is a tool built on top of Zotero to generate citations without Zotero account. the input can be anything like DOI, URL, Titlr, arXiv Id, extc. zbib API response does not contain any data regarding the citations and bibtex
- When DOI is passed to zbib, it uses CrossRef API internally to get the metadata, then it uses this metadata to form citations using CSL.

Reference Links:

- libzotero = https://github.com/fcheslack/libZotero/blob/master/pythonexamples/oauthExchange.py
- scite badge = scite Badge Documentation
  - https://medium.com/scite/introducing-the-scite-badge-ec1fba15ccf4
- Dyson dashboard: Dyson DB dashboard
- Dyson DEV dashboard: https://es.dyson.cactuslabs.io/_dashboards/app/dev_tools#/console
- Citation generator: FREE Citation Machine: Accurate & Easy-to-Use | Cite This For Me
- Citation Style Language: Citation Style Language
- Cite-proc: Z citeproc-js — citeproc-js 1.1.73 documentation
- Zoterobib: Z ZoteroBib: Fast, free bibliography generator - MLA, APA, Chicago, Harvard citations
- Zotero Github: Zotero
- citeproc python package: GitHub - brechtm/citeproc-py: Yet another Python CSL Processor
- citation styles: https://csl.mendeley.com/searchByName/