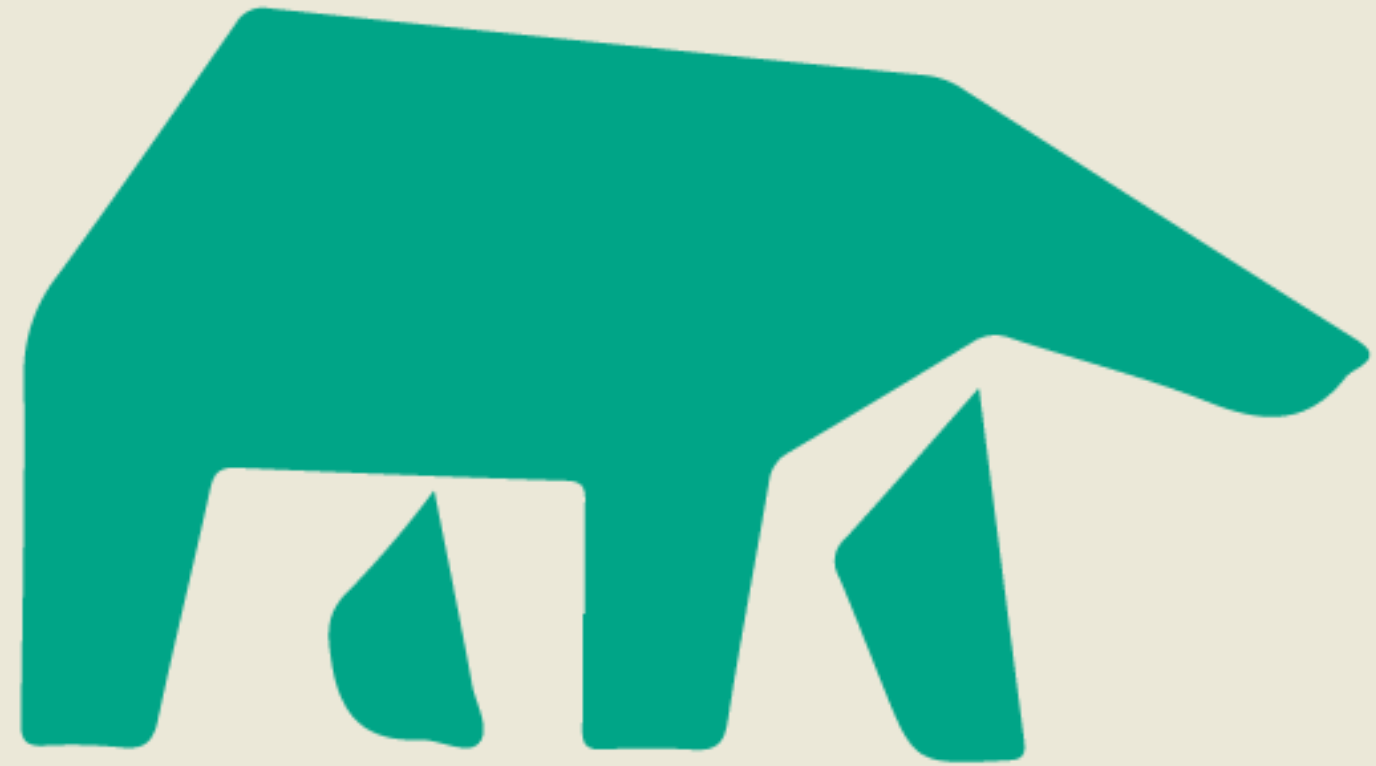


Elina Kapetanaki, 8210050

# My First OSS Contribution

My journey so far

**...I have chosen...**



mindsdb

# What is MindsDB?

Use AI Models in  
your Data

Connects to applications,  
databases, files

application examples:



**shopify**



DB examples:



mongoDB<sup>®</sup>



Uses AI on that data

Predictions

Chat Bots

Text Summarization

Sentiment Analysis

Classification

and many more...

# My Contribution Idea

**Create API handler connecting MindsDB to Zotero**  
(a “help wanted” issue)



**Zotero: collect, organize, annotate, note and share research.**

# My starting point



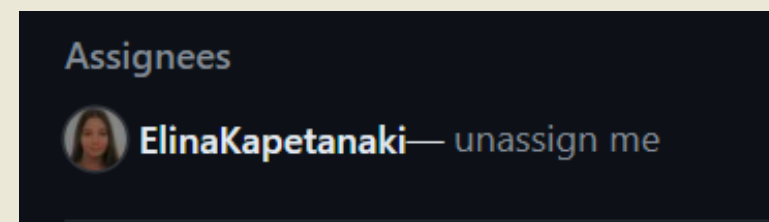
**Wrote personal draft C**  
**(independent of MindsDB):**  
**connect to**  
**Zotero - API wrapper**

```
'annotationText': 'Writers are obviously at their most natural when they write well  
all go well to the extent that it retains its humanity. Therefore I urge people  
onColor': '#ffd400', 'annotationPageLabel': '35', 'annotationSortIndex': '000'  
[0.945,312.537,351.045],[20.64,326.505,312.617,337.605],[20.8,313.065,312.376,
```

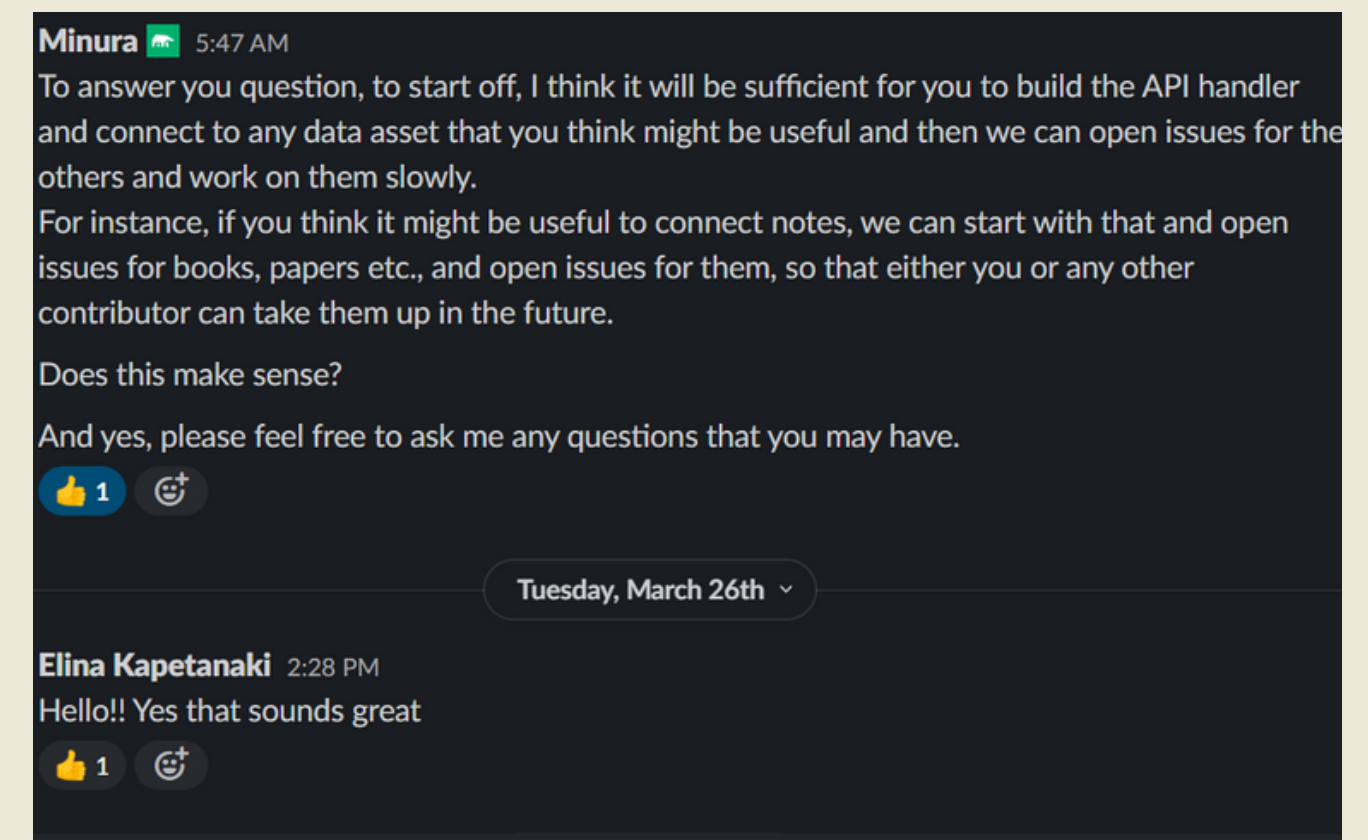
## 5 python code lines



**Commented on issue and  
): got assigned**



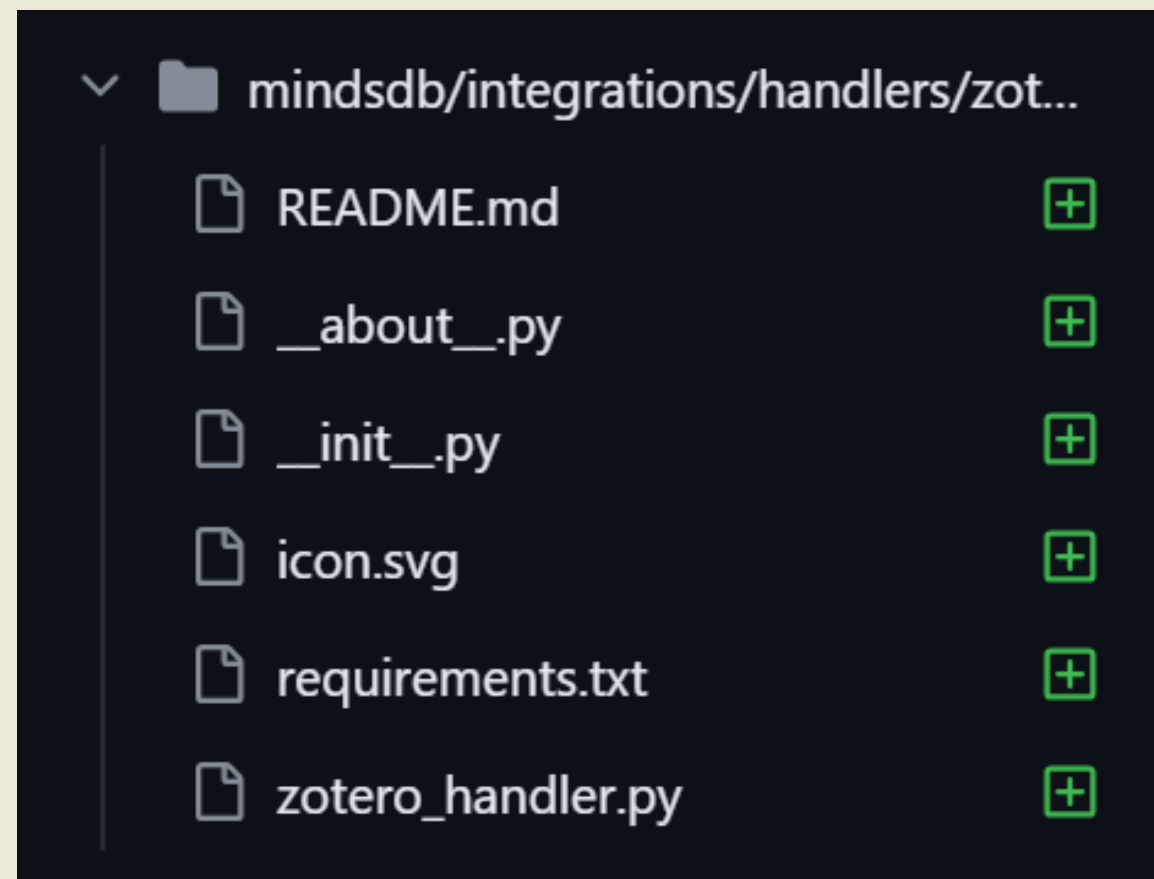
## Feedback from the team



# What I have done

MindsDB team instructions: focus on a Data Asset  Zotero Annotations

## Write Zotero API Handler and Documentation



```
if op in {'or', 'and'}:
    raise NotImplementedError(f'OR and AND are not supported')
if arg1 == 'item_id':
    if op == '=':
        params['item_id'] = arg2
        method_name = 'item'
    else:
        raise NotImplementedError('Only "item_id=" is implemented')
if arg1 == 'parent_item_id':
    if op == '=':
        params['parent_item_id'] = arg2
        method_name = 'children'
    else:
        raise NotImplementedError('Only "parent_item_id=" is implemented')

params.update({'itemType': 'annotation'}) # Add item type to params

annotations_data = self.handler.call_zotero_api(method_name, params)
annotations = [annotation['data'] for annotation in annotations_data]
df = pd.DataFrame(annotations)

# Get the columns of the annotations table
```

### Build your own Zotero AI agent

This is the implementation of the Zotero handler for MindsDB.

#### Zotero

[Zotero](#) is a free tool for organizing and managing research materials. It lets you store articles, books, and other resources in a central location, take notes, and create collections for organization. You can also share your collections with others.

#### Implementation

This handler uses [pyzotero](#), an API wrapper for Zotero as a simple library to facilitate the integration.

The required arguments to establish a connection are,

- library\_id** :  
To find your library ID, as noted on [pyzotero](#) :
  - Your personal library ID is available [here](#), in the section "Your userID for use in API calls" - you must be logged in to your account.
  - For group libraries, the ID can be found by opening the group's page: <https://www.zotero.org/groups/groupname> and looking at the group settings link. The ID is the integer after /groups/
- library\_type** : "user" for personal account or "group" for a group library
- api\_key** :  
To find your api key, as noted on [pyzotero](#) : follow [this link](#)

#### Usage

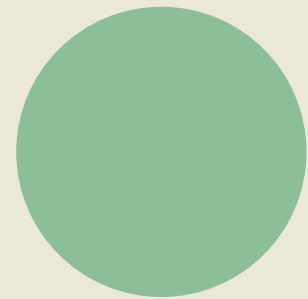
In order to make use of this handler and connect to Zotero in MindsDB, the following syntax can be used,

```
CREATE DATABASE mindsdb_zotero
```



# What I have done

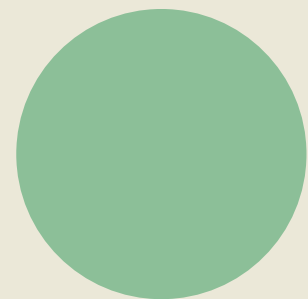
## Usage of Zotero API Handler : Selecting



All annotations in a library



All annotations of a piece of research material (book, paper etc.)



A specific annotation

to use MindsDB AI engines on them (text summarization etc.)

```
CREATE DATABASE mindsdb_zotero
WITH ENGINE = 'zotero',
PARAMETERS = {
  "library_id": [REDACTED],
  "library_type": "user",
  "api_key": [REDACTED]
}

SELECT * FROM mindsdb_zotero.annotations

SELECT * FROM mindsdb_zotero.annotations WHERE item_id = [REDACTED]

SELECT * FROM mindsdb_zotero.annotations WHERE parent_item_id = [REDACTED]
```

annotationPageLabel	annotationText
171	That's my idea of sensitive; I couldn't ask a writer to give me two more wonderful exam ration than gratitude. I also wonder: how many other examples of bat sensitivity did sh e able to choose those two? Always start with too much material. Then give your reader
169	Roueché s secret is as old as the art of storytelling. We are in on a chase and a myste e medical history of poisoning, or talk about standard texts on toxicology. He gives us lue one. Another way to help your readers understand unfamiliar facts is to relate them h. Reduce the abstract principle to an image they can visualize.
168	That was the appeal of the articles called "Annals of Medicine" that Berton Roueché wro er. They are detective stories, almost always involving a victim-some ordinary person s d a gumshoe obsessed with finding the villain.
168	The example of the linseed oil is just piquant enough to make us wonder what "memory" r
168	One problem has been to decide what memory is and what things have it. Linseed oil, for nce exposed to light, even if only briefly, it will change consistency and speed the se "remember" its first encounter with the light.
167	One human element is yourself. Use your own experience to connect the reader to some me e. In the following article on memory, notice how the writer, Will Bradbury, gives us a ab a complex subject:
167	Again, this means looking for the human element

# Metrics

**Python Code Lines**  
**300**

**README lines**  
**55**

**PEP8**  
`flake8 zotero_handler.py`  
**100%**

**Classes**  
**2**

**Methods**  
**7**

**Files Added**  
**6**



# Communication with team

## Slack

**Minura** 2:18 PM  
Hey Elina,  
It sounds like you've made great progress.  
Would you mind opening up a draft PR?

## Open Draft Pull Request

### Add zotero handler implementation

Draft

ElinaKapetanaki wants to merge 3 commits into `mindsdb:staging` from `mindsdb:staging`

Conversation 8

Commits 3

Checks 1

Files changed 1

## Commits on Pull Request: 3

Commits on Apr 21, 2024

Fix PEP8 in Zotero Handler

ElinaKapetanaki committed 38 minutes ago

Fix issues in Zotero Handler

ElinaKapetanaki committed 53 minutes ago

Commits on Apr 16, 2024

Add zotero handler implementation

ElinaKapetanaki committed last week

## Requested Changes: 1 (and resolved)

MinuraPunchihewa 3 days ago • edited

Collaborator

I believe the handler has become unusable due to this error. Let me know if this fixes your issue. Try running the `CREATE DATABASE` statement again with this fix.

ElinaKapetanaki 3 days ago

Author

Great!! The `CREATE DATABASE` statement worked now! I will work on fixing a few things more and will update this pr.

ElinaKapetanaki 3 days ago

Author

The queries work!! Made quite a few changes to my code. I want to make it a bit cleaner and will update the pr with also some pictures of the functionality.

MinuraPunchihewa 3 days ago

Collaborator

@ElinaKapetanaki Sounds great! Just mark the PR as ready for review whenever you are ready and I will take a look.

1

Reply...

Resolve conversation

ElinaKapetanaki added 2 commits 47 minutes ago

# Next steps



**Thank you for your  
time!**