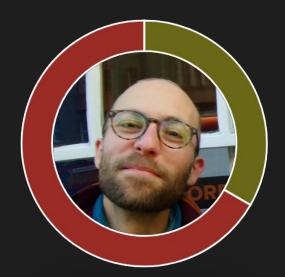
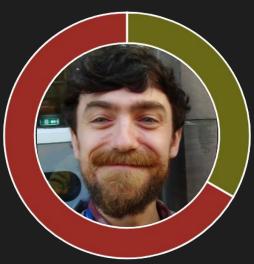
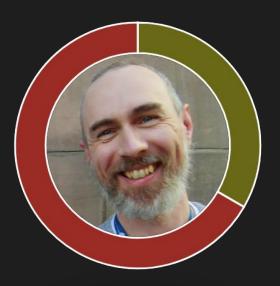


Systems Agility:

New Approaches to Google-sized Challenges







Mike
Training & Integration

Previously in Reference Services

Malcolm Users

Previously in Special Collections

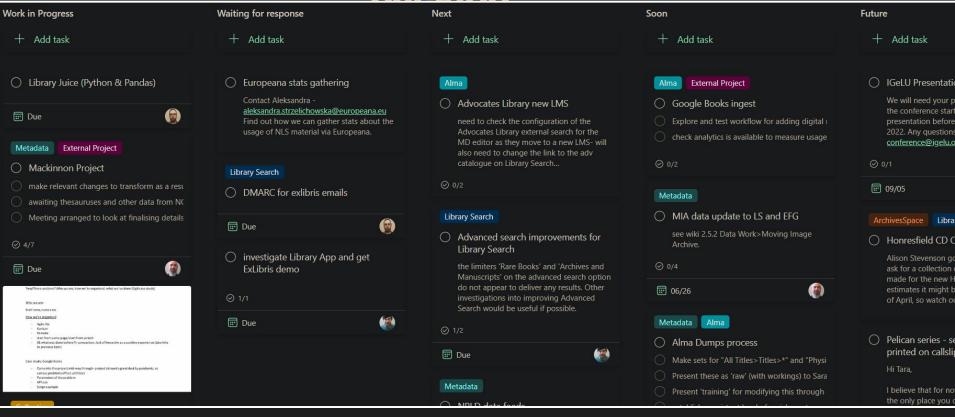
Rob

Metadata

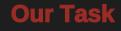
Previously in Unlocking Our Sound Heritage

Library Systems kanban

hacklog



The Problem



Discovery

Google Books: Multivolumes

Implementatio



No item records

multi-volume records in the catalogue do not have item-level records

Add or exclude multivolumes add item

add item records, ~50,000 items would need to be excluded from the project

Research Python and Alma API

See if it's possible to use Python and the Alma API to add item records quickly

Testing, iterating, implementing

Using the Alma sandbox we tested multiple versions before successfully adding the items for each row of bibIDs and holdings:

- call the Alma API to request the item record
- find the 300\$a field
- print this into a CSV with three columns: bibID, holdingID, 300\$a
- update the progress bar
- move onto the next row in bibIDs

```
for bibID, holdID in zip(bibList, holdList):
    url = f'https://api-eu.hosted.exlibrisgroup.com/almaws/v1/bibs/{bibID}?view=full&expand=None&'
          f'apikey={apiKey}'
    r = requests get(url)
    soup = BeautifulSoup(r.text, 'xml')
    vols = soup.find(tag='300').find(code='a')
    with open('300aList.txt', 'a', encoding='utf-8') as f:
        f.write(f'{bibID}\t{holdID}\t{vols.text}\n')
    pBar.update(1)
```

clustering

```
92

    12 v. (49 rows)

    12 v.; (31 rows)

    12 v.; (8 rows)

    12 v.: (2 rows)

    12 v.

    12 v.

157
        • 8 v. (79 rows)
        • 8 v.; (57 rows)
        • 8 v.: (10 rows)

    8 v.; (7 rows)

    8 v. (3 rows)

        • 8 v
121

    4v. (54 rows)

    4v.; (43 rows)

    4v (12 rows)

    4v.: (8 rows)

    4v. (3 rows)
```

for each row of bibIDs, holdings, and list of number of volumes:

- create a new item at the bib holding
- write an internal note to show this is an auto-generated record
- repeat the amount of times of the row in number of volumes
- update the progress bar
- move onto the next row in bibIDs

```
for b, h, v in zip(bibList, holdList, volList):
    enum = 2
   while enum \leq int(v):
        url = f"https://api-eu.hosted.exlibrisgroup.com/almaws/v1/" \
              f"bibs/{b}/holdings/{h}/" \
              f"items?generate_description=true&apikey={apiKey}"
        data = f'<?xml version="1.0" encoding="UTF-8"?><item link="string"><holding_data link="string">' \
               f'<holding_id>{h}</holding_id>' \
               f'</holding_data><item_data><barcode></barcode><physical_material_type><xml_value>B00K</xml_value></physica
              f'<enumeration_a>v. {enum}</enumeration_a>' \
               f'<description></description><public_note>This item record and volume number was generated programmatically
        r = requests.post(url, headers=headers, data=data)
        enum = enum + 1
```

00extract.py		
	Changed all .format to f'strings for readability	
README.md	Update README.md	AlmaPrinter Private
dd_new_vols.py	Cleared redundant .format now that f'strings are used throug	Python Updated 11 days ago
bib_allholds.py	Initial commit	
pibhold.py	Changed all .format to f'strings for readability	
pibholditem.py	Changed all .format to f'strings for readability	OAI Private
example.env	Added environmental variables and Telegram progress bar	Python Updated 15 days ago
ix_empty_barcodes.py	Updated for full biblist	
ocationExtract.py	First commit	
otesExtract.py	First commit	GaB (Private)
progress.py	Added environmental variables	
emoveBarcode.py	First commit	
equirements.txt	Updated requirements	Python Opuateu 22 uays ago
indato itoms ny	Changed all format to fetrings for readability	
ADME.md	Updated README.md	MMK (Private)
th-death.py	first commit	Normalisation and transformation of NGS Mackinnon data
ldRecs.py	First commit	
-mm.py	Modifies 300\$c field for cm/mm, ovals, mounts etc	Python Updated on Jun 24
pibhold.py pibholditem.py pixample.env pix_empty_barcodes.py pocationExtract.py progress.py progress.py emoveBarcode.py equirements.txt prodate_items.py ADME.md th-death.py IdRecs.py	Changed all .format to f'strings for readability Changed all .format to f'strings for readability Added environmental variables and Telegram progress bar Updated for full biblist First commit First commit Added environmental variables First commit Updated requirements Changed all format to f'strings for readability Updated README.md first commit First commit	Python Updated 15 days ago GgB Private Alma API interactions for GgB project Python Updated 22 days ago MMK Private