

Information Retrieval

Exercise – Winter term 2025/2026

`klara.gutekunst@uni-kassel.de`

Agenda

1. TIRA Account
2. TIRA Token
3. TIRA Dry Run
4. TIRA Submission

Assignment

- ❑ Implement one or more retrieval systems
- ❑ **Due Date:** Monday, 15.12.2025, 23:59
- ❑ **Deliverable:** TIRA submission(s)

TIRA Account

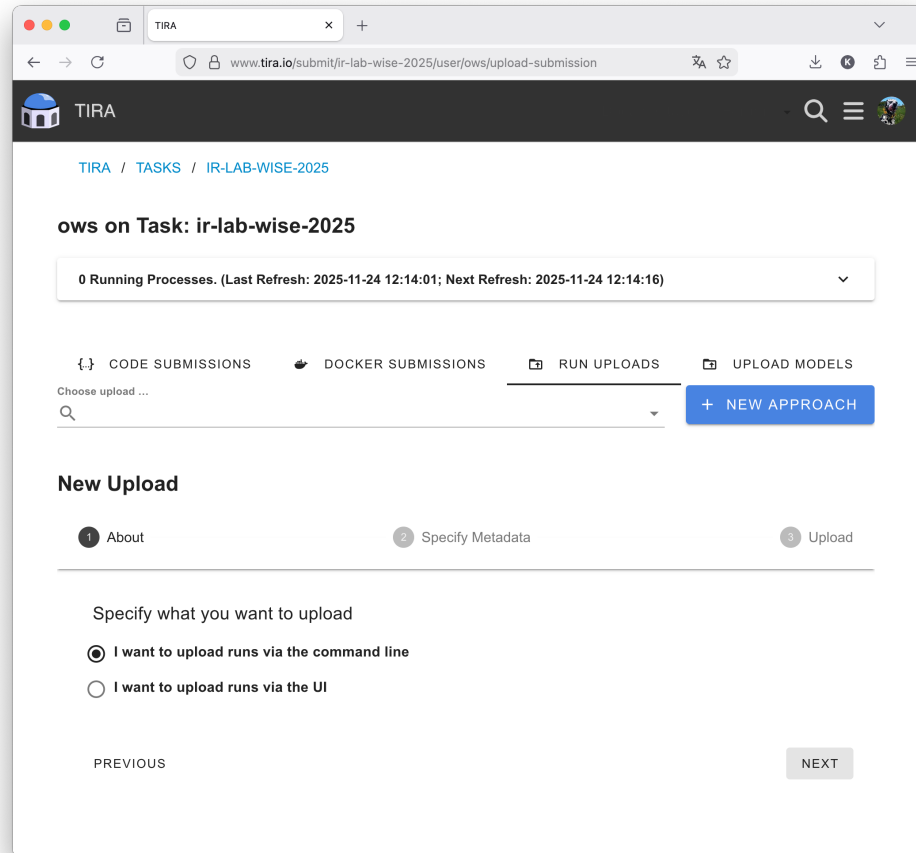
TIRA Integrated Research Architecture

1. Sign up to TIRA.
 - You may use Login in with GitHub.
2. Go to GET STARTED.
3. Go to IR Lab Jena/Kassel/Radboud WiSe 2025.
4. Register your team.

TIRA Token

Upload Runs

(1) Go to IR Lab Jena/Kassel/Radboud WiSe 2025, (2) click on SUBMIT.



Display personal token for uploading runs to TIRA by clicking on NEXT.

TIRA CLI

The **TIRA CLI** is included in the Python-based **TIRA** client.

To install it, simply install the **TIRA** client via: `pip install tira`.

```
klara@ws04 pyterrier-baseline % tira-cli --help
usage: tira-cli [-h] [-v] {download,upload,evaluate,login,verify-installation,code-submission,dataset-submission} ...

positional arguments:
  {download,upload,evaluate,login,verify-installation,code-submission,dataset-submission}
    download            Download runs or datasets from TIRA.io
    upload              Upload runs or datasets to TIRA.io
    evaluate            Evaluate runs locally.
    login               Login your TIRA client to the tira server.
    verify-installation Verify that your local TIRA client is correctly installed.
    code-submission     Make a code submission via Docker from a git repository.
    dataset-submission  Submit a new task/dataset to tira.

options:
  -h, --help            show this help message and exit
  -v, --version          show program's version number and exit
```

TIRA CLI help page ^{*}.

```
PROBLEME 5  AUSGABE  TERMINAL  ...  zsh - template-new-approach + v [ ] [ ] ... | [ ] [ ] x

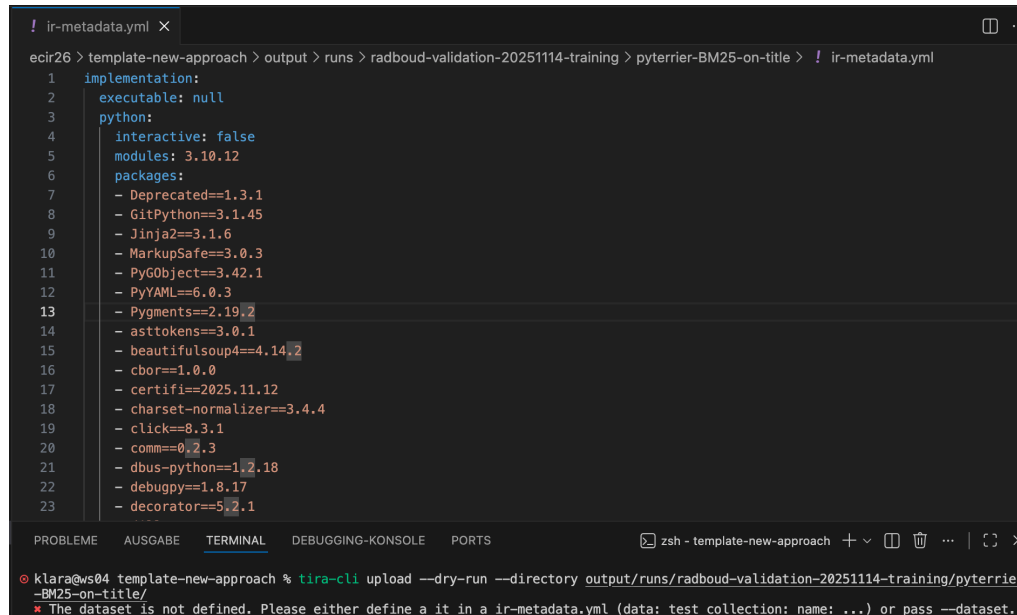
klara@ws04 template-new-approach % pwd
/Users/klara/Developer/Uni/WS2526/wows-code-ws2526/ecir26/template-new-approach
klara@ws04 template-new-approach % ls output/runs/radboud-validation-20251114-training/pyterrier-BM25-on-title
ir-metadata.yml run.txt.gz
```

Ensure that the directory you upload follows the expected submission structure described in the [\[README\]](#) file.

^{*} As of 09.12.2025, **TIRA** version 0.0.193.

TIRA Dry Run

Verify your submission



```
! ir-metadata.yml X
ecir26 > template-new-approach > output > runs > radboud-validation-20251114-training > pyterrier-BM25-on-title > ! ir-metadata.yml
1  implementation:
2      executable: null
3      python:
4          interactive: false
5          modules: 3.10.12
6          packages:
7              - Deprecated==1.3.1
8              - GitPython==3.1.45
9              - Jinja2==3.1.6
10             - MarkupSafe==3.0.3
11             - PyGObject==3.42.1
12             - PyYAML==6.0.3
13             - Pygments==2.19.2
14             - asttokens==3.0.1
15             - BeautifulSoup4==4.14.2
16             - cbor==1.0.0
17             - certifi==2025.11.12
18             - charset-normalizer==3.4.4
19             - click==8.3.1
20             - comm==0.2.3
21             - dbus-python==1.2.18
22             - debugpy==1.8.17
23             - decorator==5.2.1

PROBLEME  AUSGABE  TERMINAL  DEBUGGING-KONSOLE  PORTS
Klara@ws04 template-new-approach % tira-cli upload --dry-run --directory output/runs/radboud-validation-20251114-training/pyterrier-BM25-on-title/
* The dataset is not defined. Please either define a it in a ir-metadata.yml (data: test collection: name: ...) or pass --dataset.
```

Example for error upon invalid `ir-metadata.yml` file.

Placeholders for missing content of file is defined in the [\[submission-skeleton\]](#).

TIRA Dry Run

Verify your submission

```
! ir-metadata.yml ×
ecir26 > template-new-approach > output > runs > radboud-validation-20251114-training > pyterrier-BM25-on-title > ! ir-metadata.yml
1  method:
2    description: |
3      This approach uses PyTerrier's BM25 implementation to retrieve documents based on their titles.
4      The BM25 parameters are set to their default values.
5      The retriever is configured to operate on the title field of the documents in the Radboud validation collection.
6    name: pyterrier-BM25-on-title
7
8  actor:
9    team: ows
10
11 data:
12   test collection:
13     name: radboud-validation-20251114-training
14
15 platform:
16   software:
17     # Which software and tools did you use for training, tuning and running your system?
18     # You can maintain the software that you used manually.
19     # Alternatively, you can use repro_eval or the tirex_tracker to track this.
20     libraries:
21       - pyterrier
22
23 implementation:
24
25
26 PROBLEME  AUSGABE  TERMINAL  DEBUGGING-KONSOLE  PORTS
27 zsh - template-new-approach + v  [ ]  [ ]  [ ]  [ ]
28
29 klara@ws04 template-new-approach % tira-cli upload --dry-run --directory output/runs/radboud-validation-20251114-training/pyterrier-BM25-on-title/
30 I check that the submission in directory 'output/runs/radboud-validation-20251114-training/pyterrier-BM25-on-title/' is valid..
31 ✓ I will check that the data in output/runs/radboud-validation-20251114-training/pyterrier-BM25-on-title is valid ...
32 ✓ The run in directory output/runs/radboud-validation-20251114-training/pyterrier-BM25-on-title is valid.
33 ✓ The file ir-metadata.yml is valid.
34
35 Result:
36 ✓ The run is valid. I skip upload to TIRA as --dry-run was passed.
```

Example for valid `ir-metadata.yml` file.

If `tira-cli upload --dry-run` fails, log in first using `tira-cli login -token <YOUR-KEY>`. You can find `<YOUR-KEY>` as described on the slide “TIRA Token”.

TIRA Submission

Upload your solution

Make sure that your `ir-metadata.yml` file specifies `<YOUR-TEAM-NAME>` as the value for “actor: team:” (cf. previous slide).

```
klara@ws04 template-new-approach % tira-cli upload --dataset radboud-validation-20251114-training --directory output/runs/radbou
d-validation-20251114-training/pyterrier-BM25-on-title/
I check that the submission in directory 'output/runs/radboud-validation-20251114-training/pyterrier-BM25-on-title/' is valid...
✓ I will check that the data in output/runs/radboud-validation-20251114-training/pyterrier-BM25-on-title is valid ...
✓ The run in directory output/runs/radboud-validation-20251114-training/pyterrier-BM25-on-title is valid.
✓ The file ir-metadata.yml is valid.

Upload output/runs/radboud-validation-20251114-training/pyterrier-BM25-on-title to TIRA: 100%|█| 1.19M/1.19M [00:01<00:00, 634kB

✓ The data is uploaded.

I upload the metadata for the submission...
✓ Done. Your run is available as pyterrier-BM25-on-title at:
https://www.tira.io/submit/ir-lab-wise-2025/user/ows/upload-submission
```

Upload a valid submission following the steps described in the **TIRA** submission instructions.

You can find guidance on where to access the **TIRA** submission instructions on the slide “TIRA Token”.