

Information Retrieval

Exercise – Winter term 2025/2026

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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

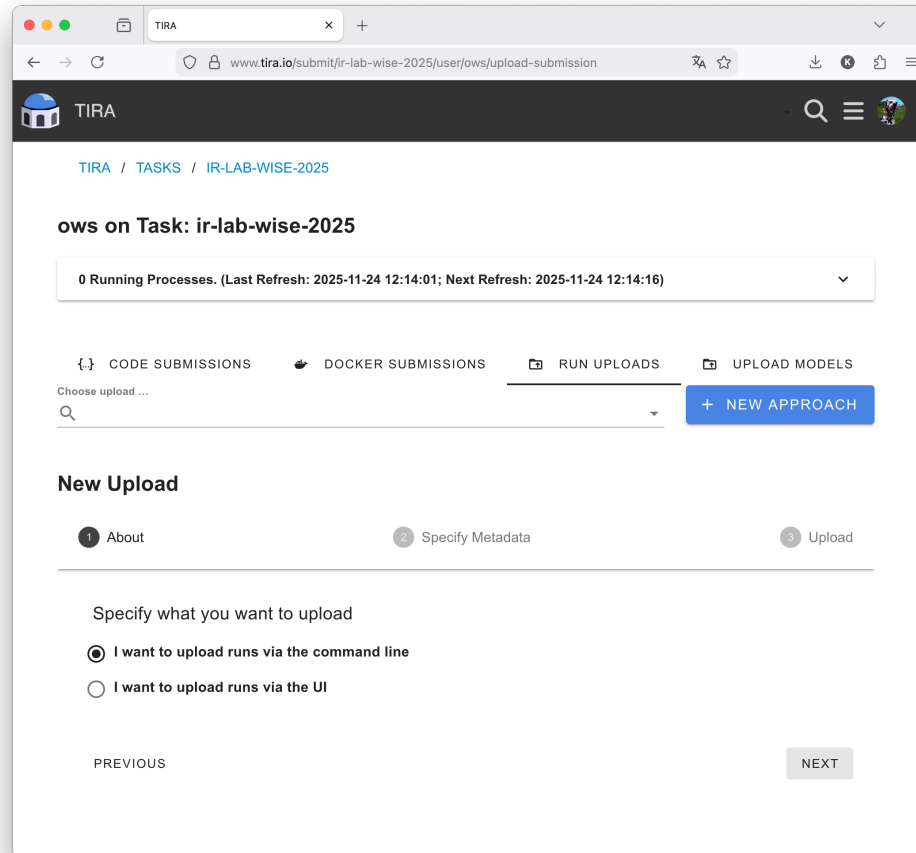
TIRA Integrated Research Architecture

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.



The screenshot shows a web browser window with the URL `www.tira.io/submit/ir-lab-wise-2025/user/ows/upload-submission`. The page header includes the TIRA logo and navigation links. The main content area is titled "ows on Task: ir-lab-wise-2025" and shows "0 Running Processes." Below this, there are tabs for "CODE SUBMISSIONS", "DOCKER SUBMISSIONS", "RUN UPLOADS", and "UPLOAD MODELS". The "RUN UPLOADS" tab is active, and a "Choose upload ..." dropdown menu is visible. A blue button labeled "+ NEW APPROACH" is also present. The "New Upload" section features a progress bar with three steps: "1 About", "2 Specify Metadata", and "3 Upload". The "Specify Metadata" step is currently active. Under the heading "Specify what you want to upload", there are two radio button options: "I want to upload runs via the command line" (which is selected) and "I want to upload runs via the UI". At the bottom of the form, there are "PREVIOUS" and "NEXT" buttons.

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

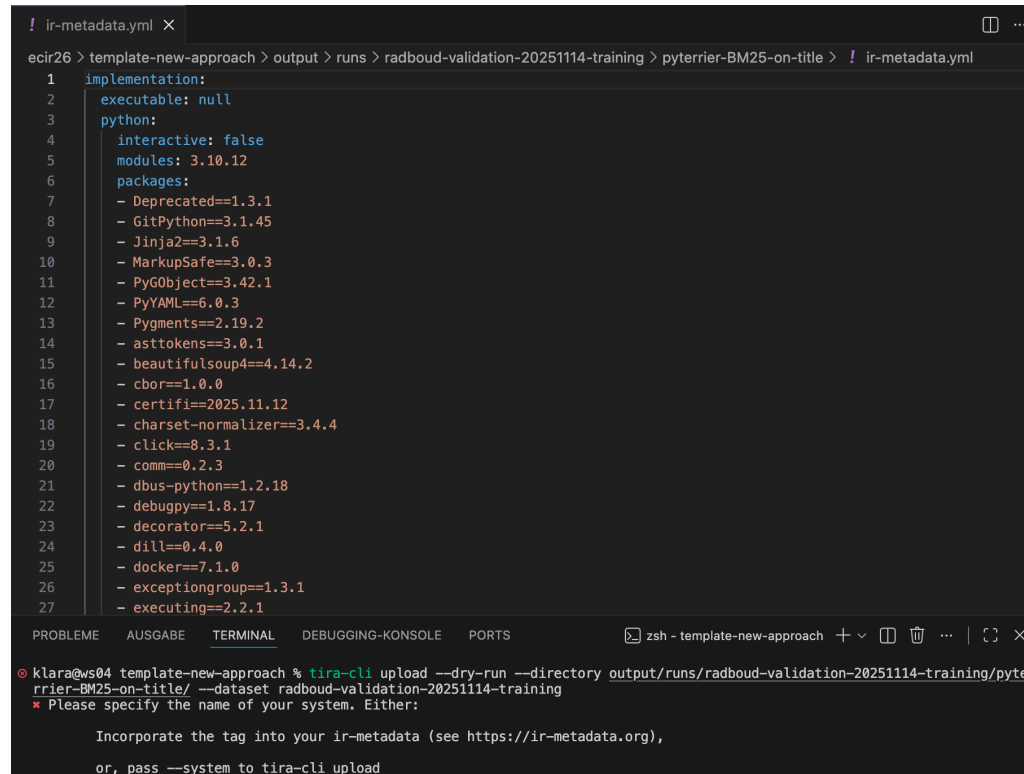
klara@ws04 template-new-approach % pwd
/Users/klara/Developer/Uni/WS2526/wows-code-ws2526/ecir26/template-new-approach
klara@ws04 template-new-approach % ls output/runs/radboud-validation-20251114-training/pyterrier-BM25-on-title
ir-metadata.yml run.txt.gz
```

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

^{*} As of 08.12.2025, **TIRA** version 0.0.192.

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
24      - dill==0.4.0
25      - docker==7.1.0
26      - exceptiongroup==1.3.1
27      - executing==2.2.1

PROBLEME  AUSGABE  TERMINAL  DEBUGGING-KONSOLE  PORTS
klara@ws04 template-new-approach % tira-cli upload --dry-run --directory output/runs/radboud-validation-20251114-training/pyte
rrier-BM25-on-title/ --dataset radboud-validation-20251114-training
✖ Please specify the name of your system. Either:

    Incorporate the tag into your ir-metadata (see https://ir-metadata.org),

    or, pass --system to tira-cli upload
```

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

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

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: teachers
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:

```

PROBLEME

AUSGABE

TERMINAL

DEBUGGING-KONSOLE

PORTS

zsh - template-new-approach

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```

@klara@vs04 template-new-approach % tira-cli upload --dry-run --directory output/runs/radboud-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.

Result:
✓ 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

```
PROBLEME  AUSGABE  TERMINAL  DEBUGGING-KONSOLE  PORTS
zsh - template-new-approach  + v  []  ...  |  [X]  X

klara@ws04 template-new-approach % tira-cli upload --dry-run --directory output/runs/radboud-validation-20251114-training/pyterrier-BM25-on-title/

Result:
✓ The run is valid. I skip upload to TIRA as --dry-run was passed.
klara@ws04 template-new-approach % tira-cli verify-installation
✓ You are authenticated against www.tira.io.
✓ TIRA home is writable.
✓ Docker/Podman is installed.
✓ The tirex-tracker works and will track experimental metadata.

Result:
✓ Your TIRA installation is valid.
klara@ws04 template-new-approach % tira-cli upload --dataset radboud-validation-20251114-training --directory output/runs/radboud-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, 653kB]

✓ The data is uploaded.

I upload the metadata for the 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”.