

🏆 Information Retrieval Shared Task 🏆

Guidelines

A Dataset and a Search Engine for the IR and ACL Anthologies

Version 1.0

*In this shared task, we will create an IR experimentation dataset for querying two repositories of scientific publications in the areas of information retrieval, natural language processing, and computational linguistics: the *IR anthology* and the *ACL anthology*. We will also create information retrieval systems for retrieving relevant documents for queries, and evaluate them on a blind test set. We will have prizes for a range of categories: best systems for particular categories, best software engineering, best documentation, and best analysis. But do not forget: **you all win** a great deal of experience with information retrieval research!*

Part 1: Topic Construction

In an Information Retrieval (IR) dataset, a *topic* typically refers to a subject or theme around which information is organized or retrieved. It represents an information need that a user might have when searching the dataset. In our case, a topic is expressed using a single *query*. In our shared task, each student/team should create 1-3 topics and submit them in the form of a file called `topics.xml` with the following structure.

i Ask your lecturer / tutors about your university's concrete assignment and mode of submission.

```
<topics>
<topic number = "1">
  <title>stemming for arabic languages</title>
  <description>Which papers focus on improving stemming in arabic languages?
  </description>
  <narrative>Relevant papers include research on stemming methods for arabic
  languages or how to improve those methods. Papers that focus on stemming in
  other languages are not relevant, as well as papers that do not focus on
  stemming. </narrative>
</topic>
...
</topics>
```

When constructing your topic(s), imagine that you are searching literature for a term paper on a scientific topic related to information retrieval or natural language processing. After you have picked a subject for your imaginative term paper (don't worry, you won't have to write it, at least not in this class :)), think about how you would query the IR and ACL anthologies for this topic. Go to the respective website and try out your queries. Read a bit about these topics if you are not already familiar with them, and refine your information need. The more specific your information needs, the more interesting our dataset will be!

- The **title** is the string that is going to be used as the query, i.e., it should contain a brief keyword-style query.
- The **description** field contains a natural language question expressing the same information need.
- The **description** field contains a detailed instruction which types of papers should be considered relevant/nonrelevant to this topic. Try to be as specific as possible when detailing the information need.

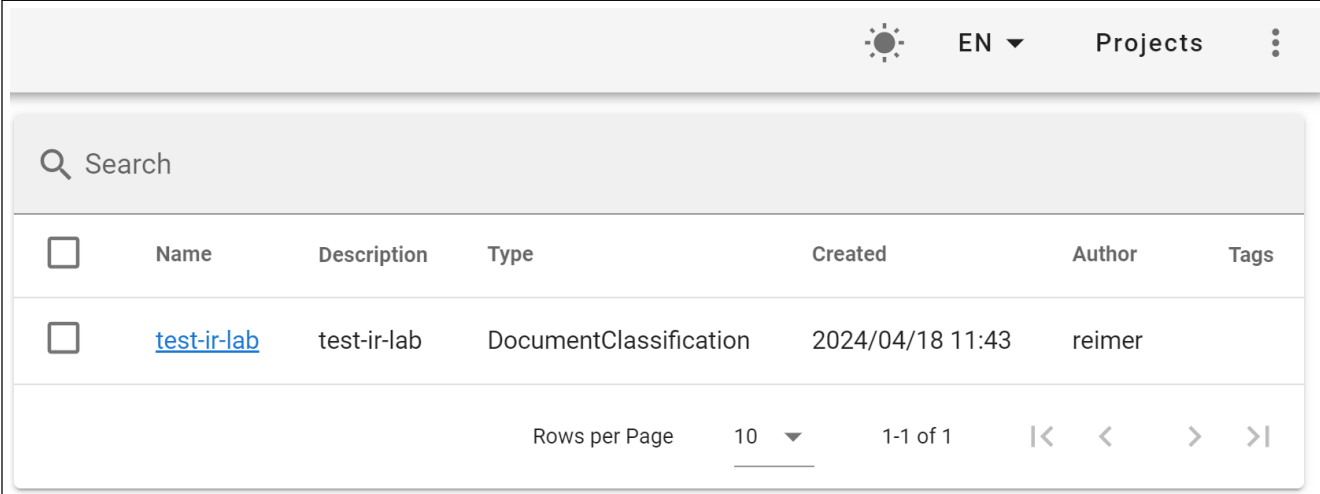
Part 2: Relevance Labeling

For each topic/query, the results of a baseline retrieval system consisting of the combination of a few well-established ranking methods will be provided by the University of Jena. For labeling documents with regard to whether they are relevant to a query, we use the web-based annotation system doccano [1]. The set of documents retrieved by the baseline system for each topic/query has been uploaded to this system for you.

Log in to the doccano installation at: <https://doccano.web.webis.de/auth>

i Your login details will be provided by your lecturer / tutor.

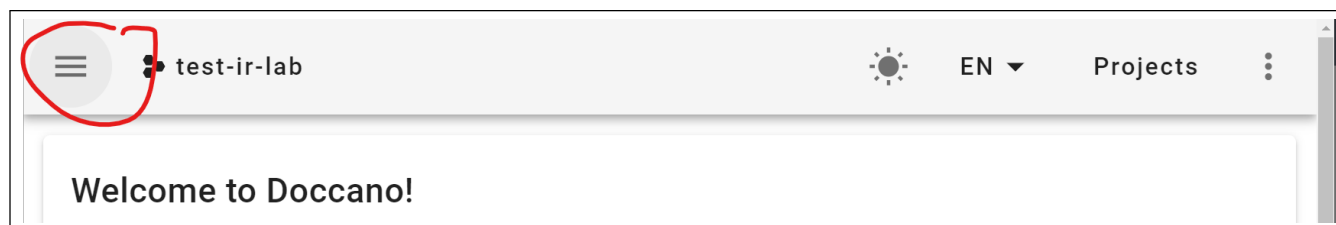
After logging in, you can see an overview of the projects that are assigned to you:



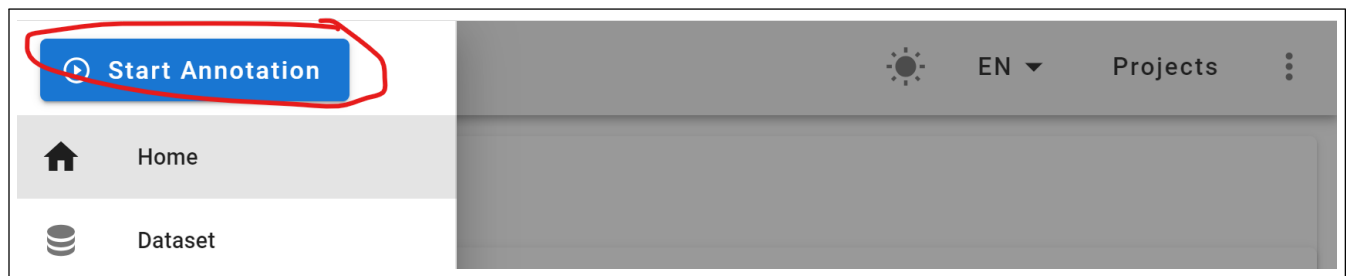
| <input type="checkbox"/> | Name | Description | Type | Created | Author | Tags |
|--------------------------|-----------------------------|-------------|------------------------|------------------|--------|------|
| <input type="checkbox"/> | test-ir-lab | test-ir-lab | DocumentClassification | 2024/04/18 11:43 | reimer | |

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Select a project. Next, if the side menu is not already expanded, click on the menu button.



Click on the blue “Start Annotation” button.



The first document will be displayed. On the right-hand side, you can see the query, narrative, and description. Your task is to judge whether the displayed document is relevant to this information need or not. On the left-hand side, you can see the abstract of the paper. Read it carefully. If in doubt, go to the full paper (the link is provided via `paper_url`). After determining whether or not a paper is relevant to the topic, click on one of the buttons at the top. You can then navigate to the next topic using the arrow buttons at the top right-hand side of doccano.

A screenshot of the doccano web application showing a document titled "Health Misinformation in Search and Social Media". The document's abstract is displayed on the left. At the top of the document area, there are two buttons: "relevant 1" (green) and "not relevant 0" (red), which are circled in red. On the right side, there is a sidebar containing a "Progress" section with a 0% completion bar, a table of metadata, and a "narrative" section. The metadata table includes fields like group, query, doc_id, query_id, paper_url, and university. The "narrative" section contains a text description of the document's relevance. The "query" field in the metadata table is also circled in red. The "description" field in the narrative section is circled in red. The top navigation bar shows "test-ir-lab" and "EN" language setting. The top right shows "1 of 33" and navigation arrows.

References

- [1] Hiroki Nakayama, Takahiro Kubo, Junya Kamura, Yasufumi Taniguchi, and Xu Liang. doccano: Text annotation tool for human, 2018. URL <https://github.com/doccano/doccano>. Software available from <https://github.com/doccano/doccano>.