

# Data Labeling Application

An application designed for annotating data generated by the Programming Tutor Feedback Generator.

## Data Annotation Process

1. **Login:** Access the application using your username and password.
2. **File Upload:**
  - If LLM-generated Java files haven't been converted to JSON, simply browse and upload the file for annotation.
  - Upon upload, the file is automatically saved in JSON format, prefixed with the user and date (user.date.filename.json).
3. **Annotation Interface:**
  - Once the file is uploaded, the annotator interface displays:
    - a. AI-generated scaffolding along with the program code.
    - b. JSON representation of the program with default annotations.
    - c. Section-wise "Edit annotation" button.
4. **Editing Annotations:**
  - Clicking the "Edit annotation" button allows for the population of line numbers, annotation criteria, and labels for those criteria.
  - Evaluation criteria include:
    - a. **Relevancy:** Determines if the scaffolding is pertinent to the code block and enhances learning.
    - b. **Quality:** Evaluates the grammatical correctness and linguistic aspects of the scaffolding.
    - c. **Sufficiency:** Assesses whether the number of scaffolding instances is adequate for understanding the code or if more are needed to assist students with potential learning difficulties.
5. **Saving Annotations:** After editing the annotation, ensure to save the changes.
6. **Completion:**
  - Once the annotation process is complete, we will utilize a separate data analyzer application (already developed) to compute and visualize various metrics.