

A Web-based Workflow for Maintenance of STACK Assignment Collections

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Problem

Each task within a STACK task collection must be tagged with metadata according to the task classification, change history, and evaluation results. Thus, the maintenance of the collections by stakeholders of different institutions becomes challenging.

Solution

We propose a web-based workflow supporting STACK task collection exchange and quality management.

1. The STACK task collection is uploaded to the repository



2. The metadata is extracted from the corresponding XML file

```
<?xml version="1.0" encoding="UTF-8" ?>
<quiz>
  <!-- question: 18641830 -->
  <question type="stack">
    <name>
      <text>Gewichtskraft Blauwal</text>
    </name>
    <questiontext format="html">
      <text>
        <![CDATA[ <br> <table cellpadding="5"> <tbody> <tr valign="top"> <td width="300"> <p> <a href="http://www.fh-dortmund.de/~f01/fesch018/stack_aufgaben/-blob/main/Kr%C3%A4fte_und_ihre_Wirkungen.xml" alt="Blauwal" width="95%" role="presentation" class="img-fluid atto_in_summary/">Lizenz</a> </p> </td> <td <p style="text-align: justify;">Wieviel Kraft benoeti
          [[validation:ans1]] </td> </tr> </tbody> </table> ]]]>
      </text>
      <file name="Gewichtskraft_GewichtskraftBlauwal.jpg" path="/"
        encoding="base64">/9j/4AAQSkZJRgABAQAAQABAAQ/7QCcUGhvdG9zaG9wIDMuMAA4QklNBAQAAAAAAIAcAjcACI
    </file>
  </questiontext>
  <questiontype options="{}" />
</question>
</quiz>
```

XML-File (Moodle)

Extractor-Program

```
#kommentar
parser = ET.XMLParser(target=ET.TreeBuilder(insert_comments=True))
tree = ET.parse(datei, parser)

for node in tree.iter():
    if "function Comment" in str(node.tag):
        zeilenID = node.text
        listeID.append(zeilenID)
```

JSON-File

```
{
  "Titel": "Gewichtskraft Blauwal",
  "Anzahl der Antworten": 1,
  "Punkte": "1",
  "Link": "https://moodle.rwth-aachen.de/question/bank/previewquestion/preview.php?id=18641830"
}
```

3. The extracted metadata is stored in a database

