Dissertation section plan: Evaluation

A user evaluation of the tool was used to assess whether the tool has fulfilled the following goals:

* Improving understanding of JSON files, allowing students to understand concepts such as nesting, and introducing objects to students who are unaware of OOP.
* Improving the accessibility of JSON files, allowing visually impaired programmers who would otherwise use screen-readers get to grips with the contents of a JSON file quickly.

First evaluation: introduce JSON file formats to several first year university computer science students, and use the tool to assist in the description of JSON files. Introduce the concepts of depth, nesting and objects to students. Evaluate success of the tool through a survey that participants complete after the session.

Second evaluation: show programmers with some experience of handling json files, screenreader transcripts from reading out JSON files. Ask programmers to answer a series of questions about the file, and record answer error rates. Do A/B testing, with the A group using the tool, and the B group not using the tool. Compare the error rates of those who used the tool vs those who didn’t use the tool.

Task 1: using json screenreader transcript, and jsonTalk tool: can a user accurately reproduce the json file?

Task 1 method : give users a page with the transcript for two different json files, with different levels of nesting. Show users how to use the tool. Ask user to either type or write out what the json file would look like. Use jsonDiff to compare the answer to the actual file.

Task 2: can users accurately determine the levels of nestu