Download these three versions of the same play, Macbeth, and think about how each might serve different needs.

* [macbeth.txt](https://mycourses.rit.edu/d2l/common/dialogs/quickLink/quickLink.d2l?ou=766919&type=coursefile&fileId=macbeth.txt)
* [macbeth.json](https://mycourses.rit.edu/d2l/common/dialogs/quickLink/quickLink.d2l?ou=766919&type=coursefile&fileId=macbeth.json)
* [macbeth.xml](https://mycourses.rit.edu/d2l/common/dialogs/quickLink/quickLink.d2l?ou=766919&type=coursefile&fileId=macbeth.xml)

I am going to bet that you can detect in the *macbeth.txt* file at least one alternative structure like the previous "Play Director" example, but better for some use cases.

In no more than 250 words, write a response to the following:

Propose either a JSON format or an XML format to convert the *macbeth.txt* file into which would better reflect what appears to you to be the *natural structure* of the play as originally written. You do not need to convert the whole file to the structure, just provide a sample of the structure. Also explain why you defined the structure that way.

Upload/submit your response as a single file with both the structure and the explanation to the dropbox.

To convert the *macbeth.txt* file to JSON, I would propose breaking it down the following way. Note that this is assuming we are only looking at the play text, and not the lengthy preamble.

* Play Title (“Macbeth”)
  + Act Number (e.g. “Actus Secundus”)
    - Scene Number (e.g. “Scena Prima”)
      * Line Type (“Speech” or “Stage Direction”)

*If “Speech”:*

* + - * + Speaker (e.g. “Fleance”)

Text (e.g. “I take't, 'tis later, Sir”)

* + - * Line Number, in format Act, Scene, Line within Scene (e.g. Act 2, Scene 1, from the above example line: “2.1.5”)

This format clearly breaks the play down into logical parts, with the overall play being split into its natural and coherent structure. Acts break down into scenes, scenes break down into speeches, and speeches break down into individual sentences. It is not necessary to go any further than that, because any more resolution (for example breaking sentences down into individual words) would render an individual entry meaningless.

Additionally, it allows for easy querying if you are looking for specific acts, scenes or speeches/sentences, as these are all separate key-value pairs. Assigning a running line number with the format of act/scene/line makes each entry unique and identifiable. The line number format is also logical in that each one explains exactly where in the play it is located.