Web technologies

Exercise Set 5

1. Referring the description of the form in Task 1 from Exercise Set 3, create:

   - an XML Schema and two sample XML documents
   - a JSON Schema and two sample JSON documents

   Verify the sample documents with the following validators:

   - XML: `https://www.liquid-technologies.com/online-xsd-validator`
   - JSON: `https://www.jsonschemavalidator.net/`

   [**3p**]

2. Develop a simple web app that would show five most recent news items based on the RSS feed at `https://tvn24.pl/najnowsze.xml`. The app should:

   - use the `jQuery.get()` method to fetch the document* (note that an XML document object is returned),
   - display the titles, contents, and hyperlinks to article pages as a list or table.

   For 2 bonus points, implement searching for news items that match a string entered in a text field. Use an appropriate library, e.g. `https://github.com/ilinsky/jquery-xpath` or similar.
   [**3+2p**]

3. Download the RSS feed from the previous task and use an online converter (e.g. `https://jsonformatter.org/xml-to-json`) to transform it to JSON format. Display the document as a tree at `http://jsoneditoronline.org/`. Learn to use `https://github.com/janl/mustache.js` library to display five news items (titles, contents, and hyperlinks to article pages) from the JSON document as a list or table.
   [**4p**]

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*In fact, implementing this part as stated will fail due to CORS (which will be discussed later in this course). One way to bypass the error is to use cors-anywhere proxy server, i.e. fetch the document from `https://cors-anywhere.herokuapp.com/https://tvn24.pl/najnowsze.xml` instead of its original location. However, please first open the URL in a regular browser as sometimes a consent is required and the button „Request temporary access to the demo server" must be clicked first.

Alternatively, in case the above doesn't work, you may try the second approach and apply the following steps:

(a) Manually save `https://tvn24.pl/najnowsze.xml` as `rss.xml` in the same directory as your solution, e.g. `task2.html`,

(b) Copy the file `mongoose.exe` from JSON lecture materials to the same directory,

(c) Run the executable and choose `task2.html`.

See `https://medium.com/@dtkatz/3-ways-to-fix-the-cors-error-and-how-access-control-allow-origin-works-d97d55946d9` for a more detailed discussion.