PWA Omeka S

Specifications to make Omeka S a progressive web app

Omeka is a digital library to manage and display heritage images, audio and video in a standardized and semantic way (with rdf ontologies) for libraries, museum, archive centers, galleries, universities.

The aim of this project is to make Omeka fully working offline. So when the user is disconnected, he should be able to continue to browse all the documents. If he makes a contribution, this contribution should be saved locally when offline, and automatically saved remotely when connected on a good network. This is not a real time application, only an app able to run offline and sync when online. This is the basic logic of the concept of progressive web app.

Planning

The implementation will be progressive too, so start simple and kiss. The planning is only a proposition to show all the features to do.

Base framework

Choose and create the base framework (worker service, local, user data and other storage, etc.). There are many online tutorials that explain it is possible in some dozens code lines, but it should be the good choice and should be able to manage all the features needed, that are very common anyway, and without.

Implement the base framework

1. Manage user credential locally (firebase?)
2. Manage local storage of metadata. Ideally a simple storage of the json-ld already available from the api.
3. Manage local storage of files (image or video/audio). The original files will be available for desktop computer, but not for smartphone. All thumbnails and recompressed video are already generated, so it's only a choice according to the device.
4. Update the local storage when online (new documents or updated metadata on server)
5. Update the server when online (new documents of the user, locally updated metadata)

Public part

1. Display a static page
2. Display a document page
3. Display the browse page
4. Search documents
5. Publish a document via the public form
6. Correct metadata from the public form

Admin part

To be continued (if the customer is ok for the previous parts, he will order it).

Notes

The solution should be light, because it will be mainly used on smartphone/tablet. The theme will be the default one currently. A web designer is working on it.

The solution should be fully open source, and based on a js framework. The currently preferred js framework is vue, but it can be changed.

Omeka S is a Zend 3 based application. So probably two developers, one for the js, one for the Omeka/Zend module for the backend. The Omeka rest api is json-ld based, and allows to use credentials.

The database is about 1000 documents with files (about 10 GB uncompressed, less than one GB for compressed). Each point will be deliver regularly. The intellectual property transferred before published. Deadline: about one month.