PDF Editor Spike

TOC

Approach

- Investigate Web-browser based PDF editors that allow you view and edit a PDF via a URI endpoint (over WebDav, over SFTP, etc) and can be feature restricted to allow adding/editing bookmarks to PDF, but NOT allow editing the contents.

- Buy/use or integrate an extensible/programmable web-browser based PDF viewer that lets us select arbitrary text (and/or images ?) and then extend a right mouse menu, a menu/header button, a floating button that the user could click to start a "Add New Bookmark" sequence which calls a web service call to programmatically edit the PDF directly on the backend while we are viewing it.

Results

PDF.js

- **Evaluation**: PDF.js is a open source JavaScript library that allows you to parse and render PDF files in a web browser. It provides a rich set of APIs to manipulate PDFs, but it doesn't seem to support bookmarks/annotations. The viewer could be customized to add the capability of adding bookmarks and restrict editing capabilities to only adding bookmarks. The project is backed by Mozilla and is actively maintained.

- **Pros**:

  - Open source project.
  - Provides a limited set of APIs to manipulate PDFs.
  - Can be customized to restrict editing capabilities to only adding bookmarks.
  - Actively maintained.

- **Cons**:

  - Doesn't seem to support bookmarks/annotations out of the box.
  - May require a lot of customizations to add the capability of adding bookmarks.
  - May require a lot of customization to restrict editing capabilities to only adding bookmarks.

- **Resources**:

  - [PDF.js](#)
  - [PDF.js API](#)

- Currently there is no available Live Demo for this tool. It can be tested by installing the chrome extension [PDF Viewer](#) and opening a PDF file or by using Firefox browser.

PDFTron

- **Evaluation**: PDFTron is a commercial PDF SDK that provides a web-based PDF viewer/editor that can be embedded in a web application. It provides a rich set of APIs to manipulate PDFs, including adding bookmarks. The viewer/editor can be customized to restrict editing capabilities to only adding bookmarks.

- **Pros**:

  - Provides a rich set of APIs to manipulate PDFs.
  - Can be customized to restrict editing capabilities to only adding bookmarks.
  - Supports multiple platforms (Web, iOS, Android, Windows, Linux, macOS).
  - Provides a free trial.

- **Cons**:

  - Commercial product, so it may be expensive.
  - May require a lot of customization to restrict editing capabilities to only adding bookmarks // It's not entirely clear from the documentation how to restrict editing capabilities to only adding bookmarks.

- **Resources**:

  - [WebViewer](#)
  - [WebViewer API](#)
  - [WebViewer API: Bookmarks](#)
  - [Demo](#)

PDF.js Express

- **Evaluation**: PDF.js Express is a commercial PDF SDK that provides a web-based PDF viewer/editor that can be embedded in a web application. It provides a rich set of APIs to manipulate PDFs, including adding bookmarks. The viewer/editor provides a client side user permission system that can be used to restrict editing capabilities to only adding bookmarks.

- **Pros**:

  - Provides a rich set of APIs to manipulate PDFs.
  - Can be customized to restrict editing capabilities to only adding bookmarks.
  - Supports multiple platforms (Web, iOS, Android, Windows, Linux, macOS).
  - Provides a free trial.
  - Supports [Angular](#), [React](#), and [Vue](#).

- **Cons**:

  - Commercial product. [Pricing](#).

- **Resources**:

  - [PDF.js Express](#)
  - [PDF.js Express API](#)
  - [PDF.js Express Demo](#)

[Kendo UI PDF Viewer](#)

- **Evaluation**: Kendo UI PDF Viewer is a commercial PDF viewer that can be embedded in a web application. It only provides viewing capabilities and does not support editing PDFs. It does not support bookmarks/annotations.

Conclusion

- PDF.js is an open source project that can be customized to add the capability of adding bookmarks and restrict editing capabilities to only adding bookmarks. However, it may require a lot of customizations. The bookmarks/annotations functionality could possibly be added by extending the viewer and adding a custom UI to allow users to add bookmarks. The custom UI would then call a web service to programmatically edit the PDF directly on the backend to add the XFDF annotations/bookmarks.

- PDFTron and PDF.js Express are commercial products that provide a rich set of APIs to manipulate PDFs, including adding bookmarks. They can be customized to restrict editing capabilities to only adding bookmarks. They also provide a free trial. PDF.js Express provides a client side user permission system that can be used to restrict editing capabilities to only adding bookmarks and seems to be more cheaper and user friendly than PDFTron.

- Kendo UI PDF Viewer is a commercial PDF viewer that only provides viewing capabilities and does not support editing PDFs. It does not seem to support bookmarks/annotations.