Share Pro

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I.   INTRODUCTION

Objective of this document is to define the proposed process and scope from a web developer's perspective and to identify key modifications to enhance user experience. This document serves as a reference throughout the process for confirmation of approach and definition of tasks.

This document is designed to outline the proposed process of Share Pro web app. This document contains both design flow and functional flow of the app. The initial phase of project focuses on including different kinds of media into the app. Share Pro provides a platform for survey and feedback for various kinds of media.

In development of Share Pro, graceful degradation style of web-app development is followed. Share Pro has cross-browser compatibility for chrome v37.(&above) and firefox v33.0.

II.   TOOLS/FRAMEWORKS/LIBRARIES

This project includes various libraries to enhance user experience. Below is a list of various technologies used in development of this project.

Technologies:

1. **Language→ Javascript** is used as the functional programing language for front end development in Share Pro.

2. **Markup→ HTML5**

3. **FrameWork→AngularJS** v1.2.23 is used as the front end framework.

4. **Libraries:** below is the list of libraries included in Share Pro

    a. **Bootstrap→** Bootstrap v3.0.3
    b. **Angular UI Bootstrap→** UI-Bootstrap v0.6.0
    c. **Jquery→** jQuery JavaScript Library v2.1.1
    d. **Pdfjs →** pdfjs v2.0

5. **Package manager→ bower** 1.3.11

6. **Dependency manager→ grunt** v0.1.133

III.   ASSUMPTIONS

While designing Share Pro, certain assumptions were followed to give the product a unique design flow.

1. Navigation bar is designed with Documents, Videos and Images as its three tabs placed in the respective manner (documents are given highest priority followed by videos and images).
2. Surveys for all kinds of media are given higher priority over Social feedback.
3. Pdf plugins are assumed to be pre-installed in the browser. (chrome has inbuilt and firefox has pdfjs)

IV.   KEY FEATURES

Share Pro is loaded with advanced libraries to provide user with a soothing experience.

1. Back button and refresh are major concerns of single page apps. Both of the functionalities are fully integrated in Share Pro.
2. URL manipulation is allowed in Share Pro for better user experience.
3. Share Pro is a responsive web-site in terms of presentational behaviour.
4. ATF(Above the fold) principle is followed throughout the app.
5. Share Pro is a single page app divided in three different views: Browse, View and Social over Content.
6. Static data is coded in json format so that when the project gets integrated with backend, no major changes would be needed from front end.

V.   LIMITATIONS

Share Pro v1.0 has certain limitations while handling various kinds of media.

1. Pdf Documents→pdf-viewer is required as a plugin in browser. If browser does not have pre-installed viewer, user has option to download the pdf document.

2. **Docx Documents→** currently no browser supports viewing of word documents (docx) directly. Only download option is available.

3. Media Controls→ currently default controls of pdf-viewer, media player are used.

4. Pagination History→ currently pagination history is not maintained for any kind of media.

5. Video File Types→ Share pro v1.0 supports mpeg, ogg, webm and flv formats. (.avi format is not supported in phase-1)

VI.   PROPOSALS

Limitations registered in Share Pro v1.0 will be resolved in phase-2 of development with following proposals.

1. Pdf Documents→ In Phase-2, emphasis will be on developing custom pdf-viewer with custom controls. This custom pdf-viewer will be able to fit the width and height of the document to desired width and height.

2. Docx Documents→ Since no browser supports viewing of word documents directly, the possible way to achieve this is to generate online google links for the doc files and then we can try to access those links. Google does the same with email attachments.

3. Media Controls→ POC is to be done on customizing controls of default media player. For Images, zoom option will be included in phase-2.

4. Pagination History→ To maintain the pagination history, page flag will be included as a query parameters in the URL so that when a user hits refresh or back button, desired page can be loaded according to the page flag in query parameters.

5. Video File Types→ default media players currently don't support .avi formats. POC is to be done on either including .avi in customized video player or a possible video converter that can convert .avi video files into any of the desired format before playing them on client browser.

VII.   PRODUCTION ENVIRONMENT

In production HTTP, TCP overheads and code security are some of the main concerns from a developer's perspective. While moving to production, following key points will be taken care of:

1. **Use of CSS sprites:** CSS sprites will be used to reduce the number of HTTP request to server.
2. **File Concatenation:** files of same type (like .js and .css) will be concatenated to make a big file. Now for one type of file, only one HTTP request will be sent to server.
3. **File Minimization:** to further minify the size of code, different minifying techniques will be used (like minifyjs and css-min). Doing this also provides an extra layer of security over the code.
4. **Domain Sharding:** certain techniques will be used for tricking browsers into opening more simultaneous connections than normally allowed.

VIII.   PHASE-2

Share Pro v2.0 will include features mentioned in proposals section. Additional features in Share Pro v2.0 will be

1. **User Based Colour Theme:** User can select one of the many colour themes available in the app and the selected theme will be stored against the user credentials. When user logs in again he/she can find his/her custom settings already applied throughout the app.
2. **Interactive App:** emphasis will be on making Share Pro v2.0 more interactive with user while following the standards of User Interface Guidelines.
3. **Search Option:** Search option will be provided in Share Pro v2.0 so that user can browse through the whole database of media content on a single click.

4. **Delete Comments:** User will be able to delete the comments he/she has put on various media or flag others.
5. **Handheld Devices:** Share Pro will be fully functional for handheld devices in phase-2.