Sphinx UI Design Research Report

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Executive Summary

Sphinx has been designed to assist individuals who wish to convert typewritten documents into text documents. A user can accomplish this task with their mobile device and the Sphinx app. Once Sphinx is launched, a user can utilize their mobile device's camera to capture an image of the document. Once an image is captured, Sphinx uses Optical Character Recognition (OCR) to convert the document to text. A user can then choose to save the document locally to their device or share it with others via email or cloud sharing.

Problem Statement

The goal of developing Sphinx is to provide individuals with a tool that allows them to easily convert paper documents to digital text documents. In addition, Sphinx provides users the ability to share and categorize converted documents. Outside of the basic functions, Sphinx also aims to provide users with a pleasant experience converting and sharing documents they may not find in another document conversion app.

User Research Analysis

The first stage of user research was to understand a user's goals, their current struggles with similar apps, and what their current processes are to solve the problem. To accomplish this, the following questions were developed:

1. How do you currently go about converting a document typed with a typewriter to a text document?
2. What is the biggest pain point related to your current conversion method?
3. What are you currently doing to make this conversion process easier?
4. Tell me about the last time you tried to scan a document?
5. What other products/tools have you tried out?
6. What did you like or dislike about these products/tools?

For the purposes of this assignment, I asked these questions to individuals as if they were potential users. The majority of users stated they would use their phone's camera to take a picture of a typewritten document and then use some type of app to convert it. One user suggested using a software with a conversion feature similar to Adobe Acrobat Pro's PDF to Word converter. Two users said if they didn't have access to a program to convert the document, they would manually type it in Microsoft Word or Pages. However, this method would be tedious and inefficient.

In my own experience, I have used a mobile app called Scanner Pro to take a picture of a document and then convert it to a PDF that looks exactly as if it was scanned. I took a deeper look into the various features of this app and based some of the functionality of Sphinx off what I experienced when using Scanner Pro. Primarily, I based the document review screen a user encounters after taking a picture off what one would see in using Scanner Pro.

Conclusions

After developing sketches and a functioning prototype, I had these same users try to accomplish tasks such as capturing a document with the app, changing the tile type, adding a tag, and so forth. Through the testing, I was able to adjust a few pain points that some users reported. One such pain point was a lack of feedback when using the camera. A user reported that feedback on the camera screen, such as “looking for page”, would be useful so that they know the camera function is operating. Additionally, another user stated that an alert saying “are you sure you want to delete this document” would be helpful to ensure a document is not accidentally deleted. When revising my prototype, I implemented this feature when a user would go to delete a saved document.

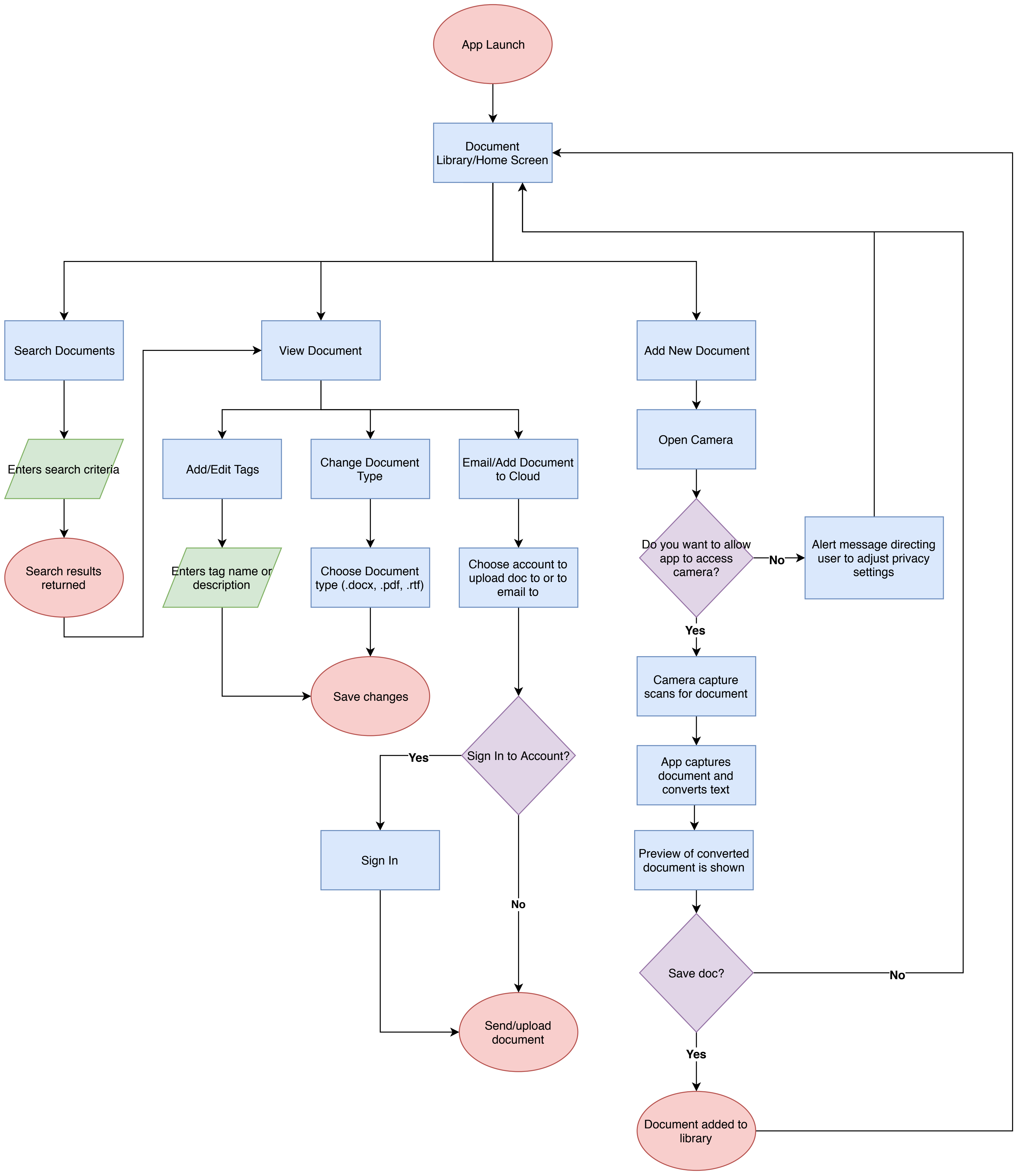
Aside from these changes, users seemed rather pleased with the minimal effort needed to complete any one of the given tasks. Multiple users reported that they liked how they could change a document type and share a document without leaving the screen. This was yet another instance where I drew inspiration from the Scanner Pro app. By limiting how much the user is screen-hopping, they will not feel like they are lost within the app.

Summary

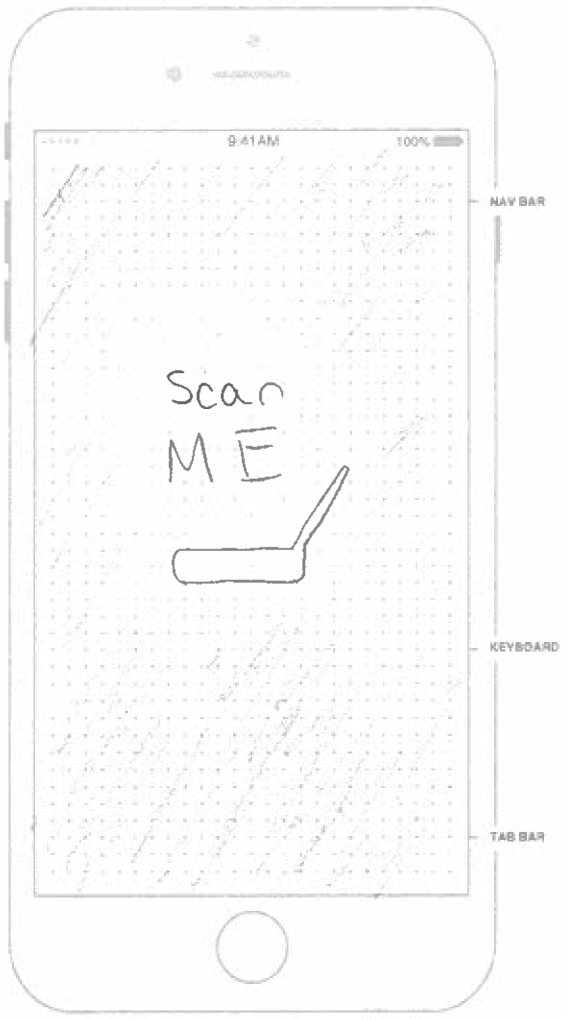
Before research and design of Sphinx could begin, the first objective was to define the product. Given the design problem, the core product is the ability to convert a typewritten document to a text document while the actual product is the Sphinx app and all of the gears under the hood. Understanding what the goal of the core product allowed me to focus the design on achieving this goal while providing users with a pleasurable user experience. One way I aimed to achieve this was by using the principle of proximity. One example of proximity in Sphinx is the grouping of the document type, tags, and sharing icons. While each of these accomplish different tasks within the app, they all require the user to take some form of action with the document. Knowing this, I felt creating a group for these objects would add more simplicity to the user experience and illustrate that the tasks are related in some manner.

In addition to proximity, I tried to minimize ambiguity with action items in Sphinx. For example, I designed any negative action items, such as cancel, with red outlines and lettering. On the contrary, positive action items, such as a Save button, feature a heavier font weight and a green button. By creating this difference between the two, users will understand that each action has a different outcome. Consistency was also applied in the design of each screen by featuring a menu title in the bar at the top of the screen. Since each screen features this, a user will know exactly which screen they're on.

ScanME Workflow
Mark O'Black
DMA 545


App Launch
Document Library/Home Screen
Search Documents
View Document
Add New Document
Enters search criteria
Search results returned
Add/Edit Tags
Change Document Type
Email/Add Document to Cloud
Enters tag name or description
Choose Document type (.docx, .pdf, .rtf)
Choose account to upload doc to or to email to
Save changes
Sign In to Account?
Yes
No
Sign In
Send/upload document
Open Camera
Do you want to allow app to access camera?
No
Alert message directing user to adjust privacy settings
Yes
Camera capture scans for document
App captures document and converts text
Preview of converted document is shown
Save doc?
No
Yes
Document added to library

1



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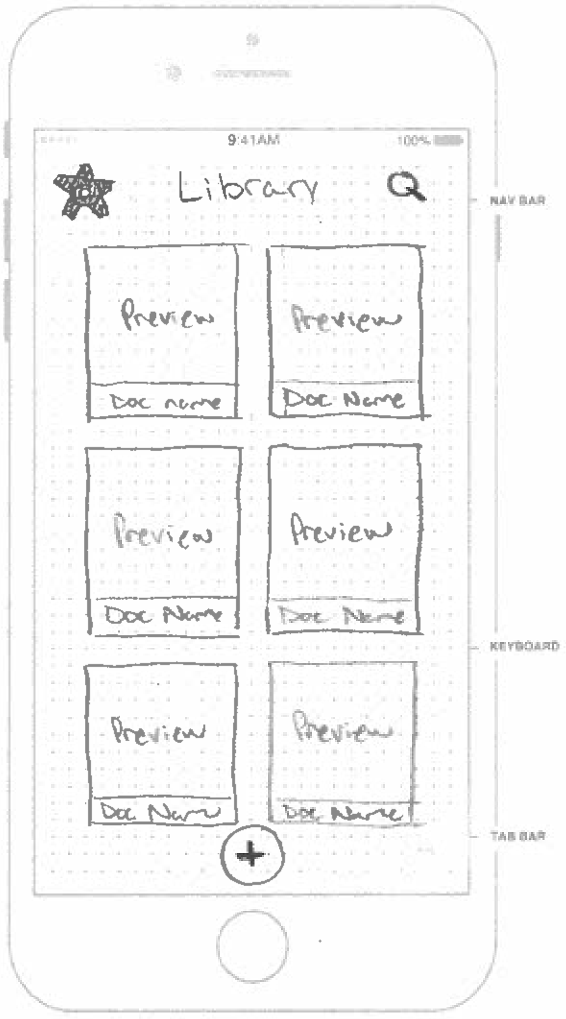
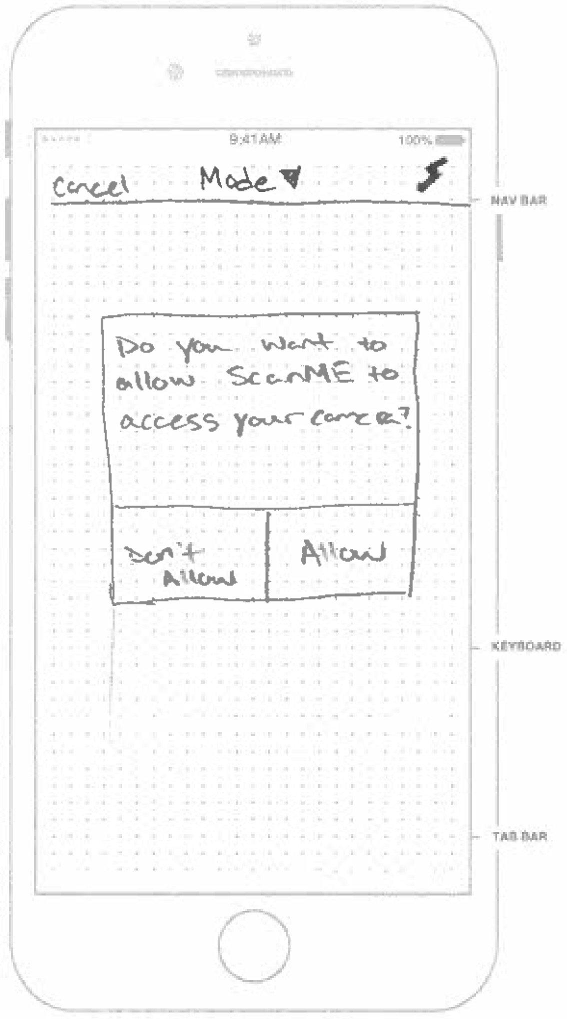


Click ⊕ to add new document

3



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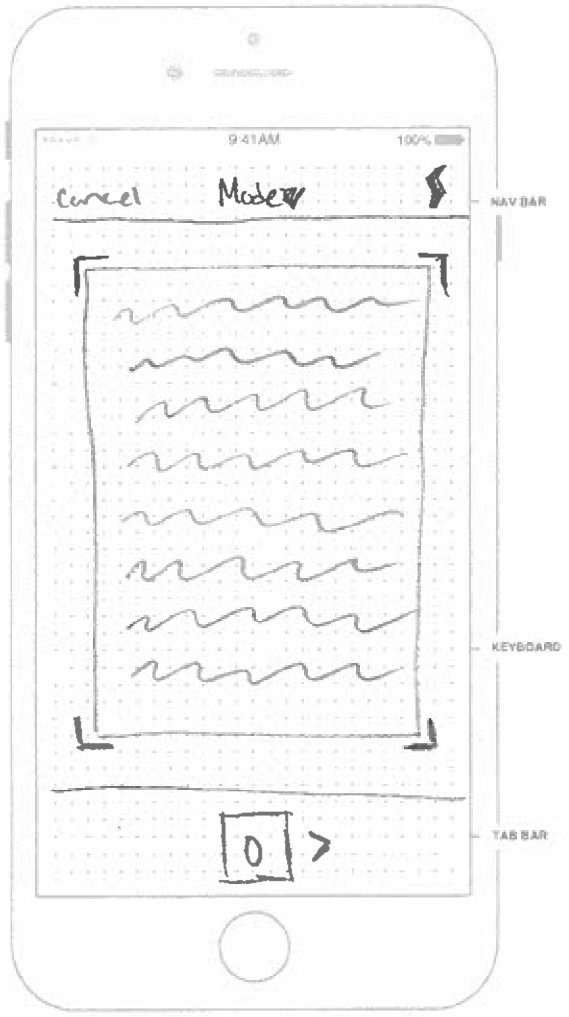
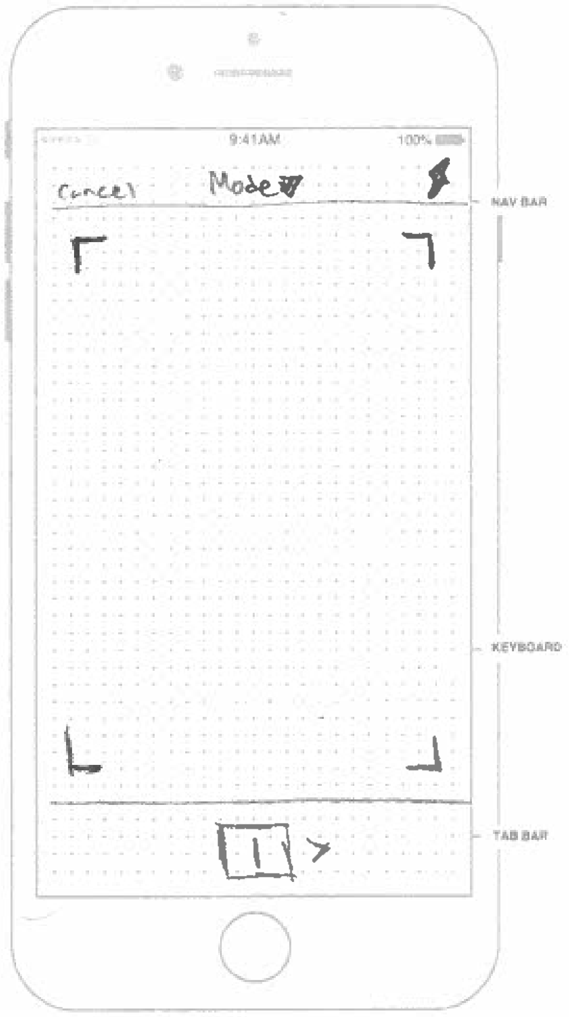


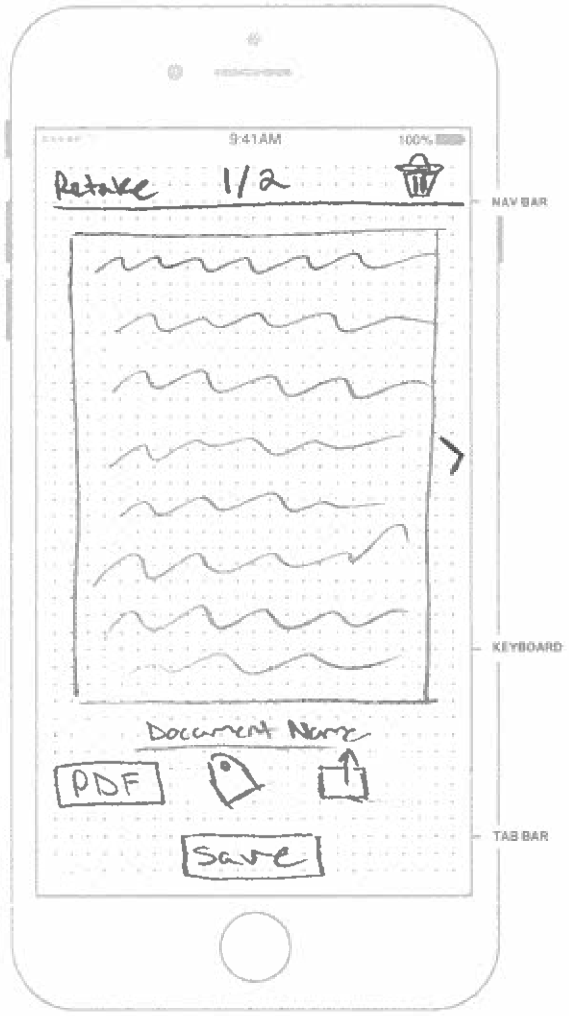
Corner icons illuminate green when document is detected

5



Pictures taken increases by 1

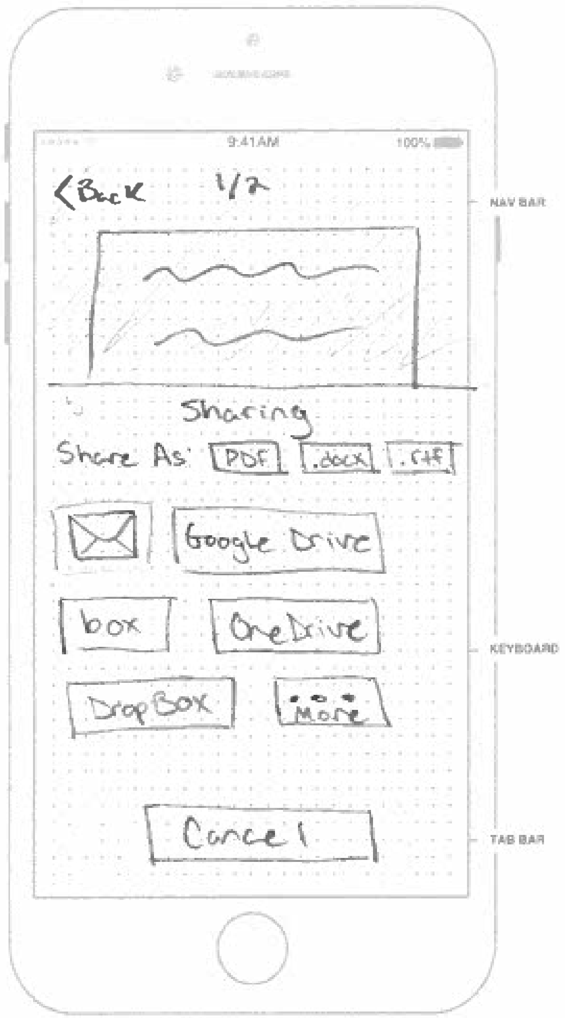
6



Display converted document

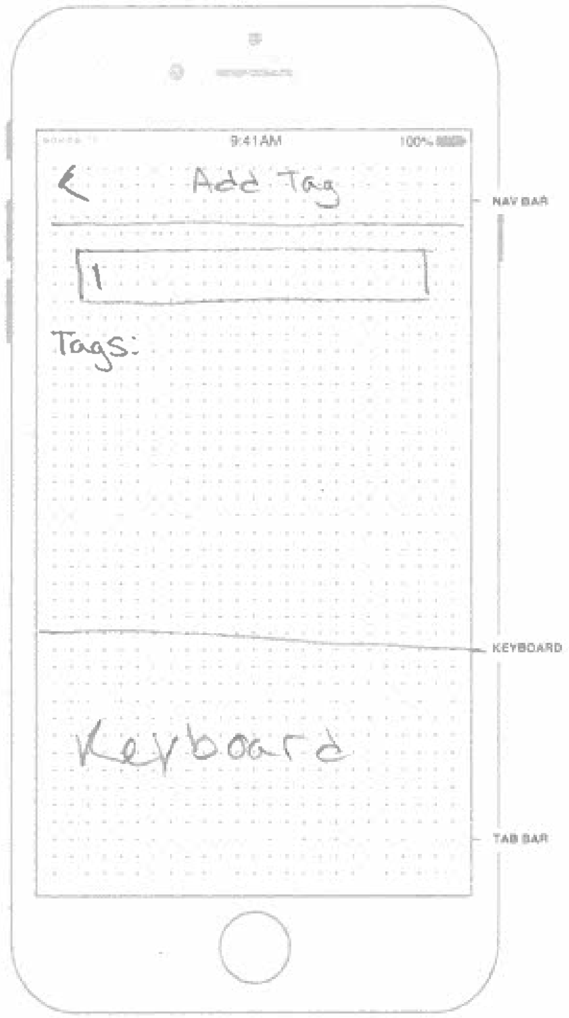
Template Created by Matthew Stephens (matthewstephens.com)

7

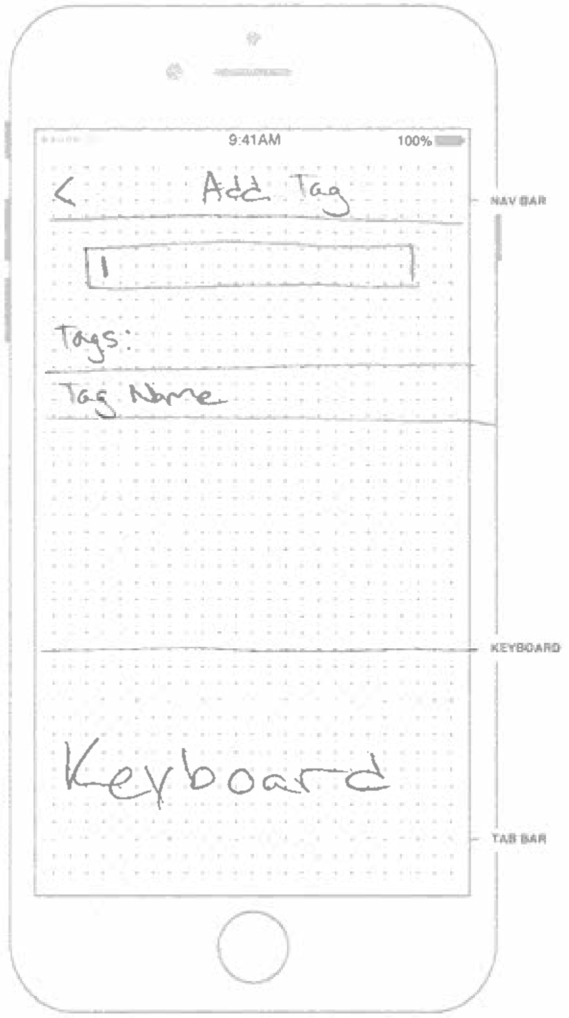


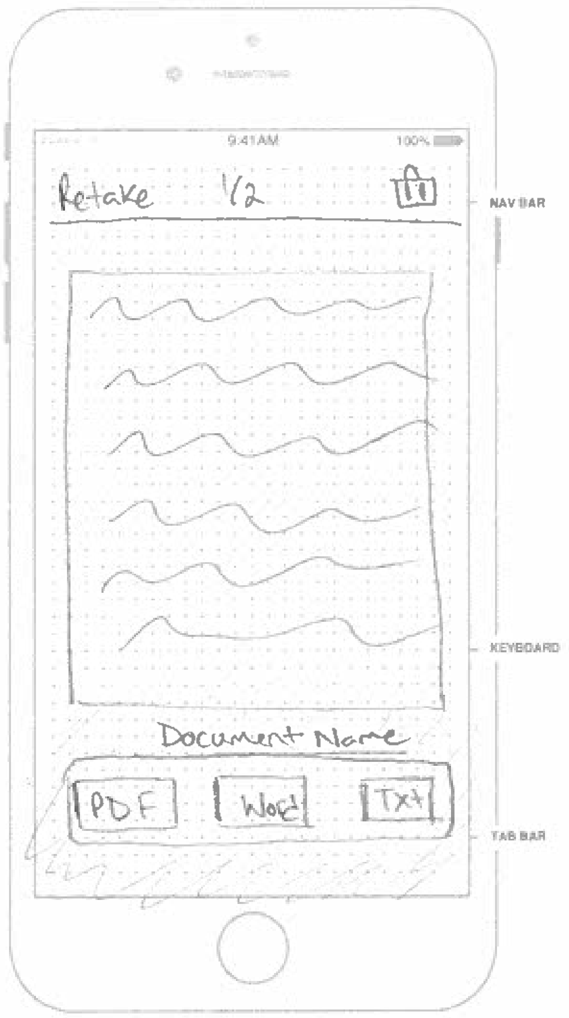
Sharing Options

8a



8b

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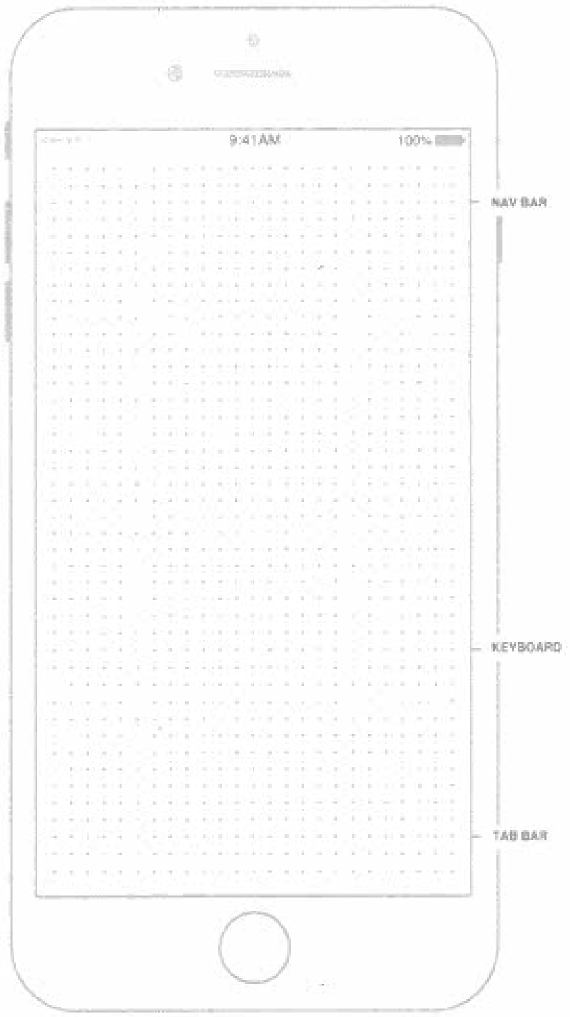
100%
Retake
1/2
NAV BAR
KEYBOARD
Document Name
PDF
Word
Txt
TAB BAR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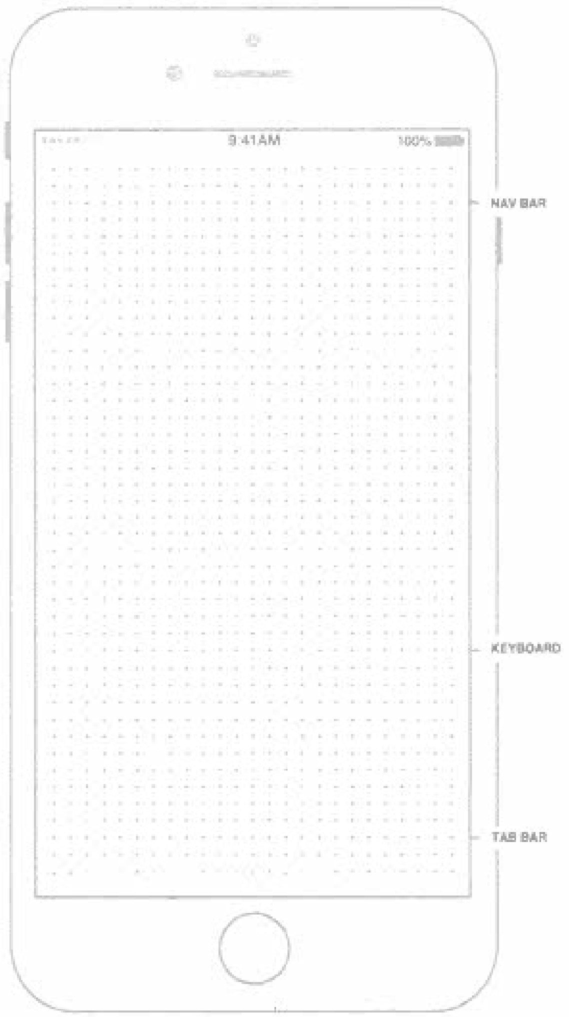
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