User Interface Design
6.005 Project 2 - Collaborative Editor

Deepak Narayanan, Todd Cramer, Victor Pontis
TA – William Ung

For our User Interface Design we had many different suggestions from each member. For this design document we will do three things

1. Discuss and answer some of the big problems our team had to answer about the user interface design of our product.
2. Look at sketches of 2 possible design including pros and cons of each
3. Explain fully with mockups the design we ended up choosing

Questions:

1.How would we make it visible that multiple people were working on the same document?

To do this we decided the easiest way was to make the user interface ask for a username before editing a document. By doing this we have a name to associate with that user that is distinct (two of the same user names can not exist). This makes it easy to see who is working on a document at any time, by just listing the usernames in the header of the document.

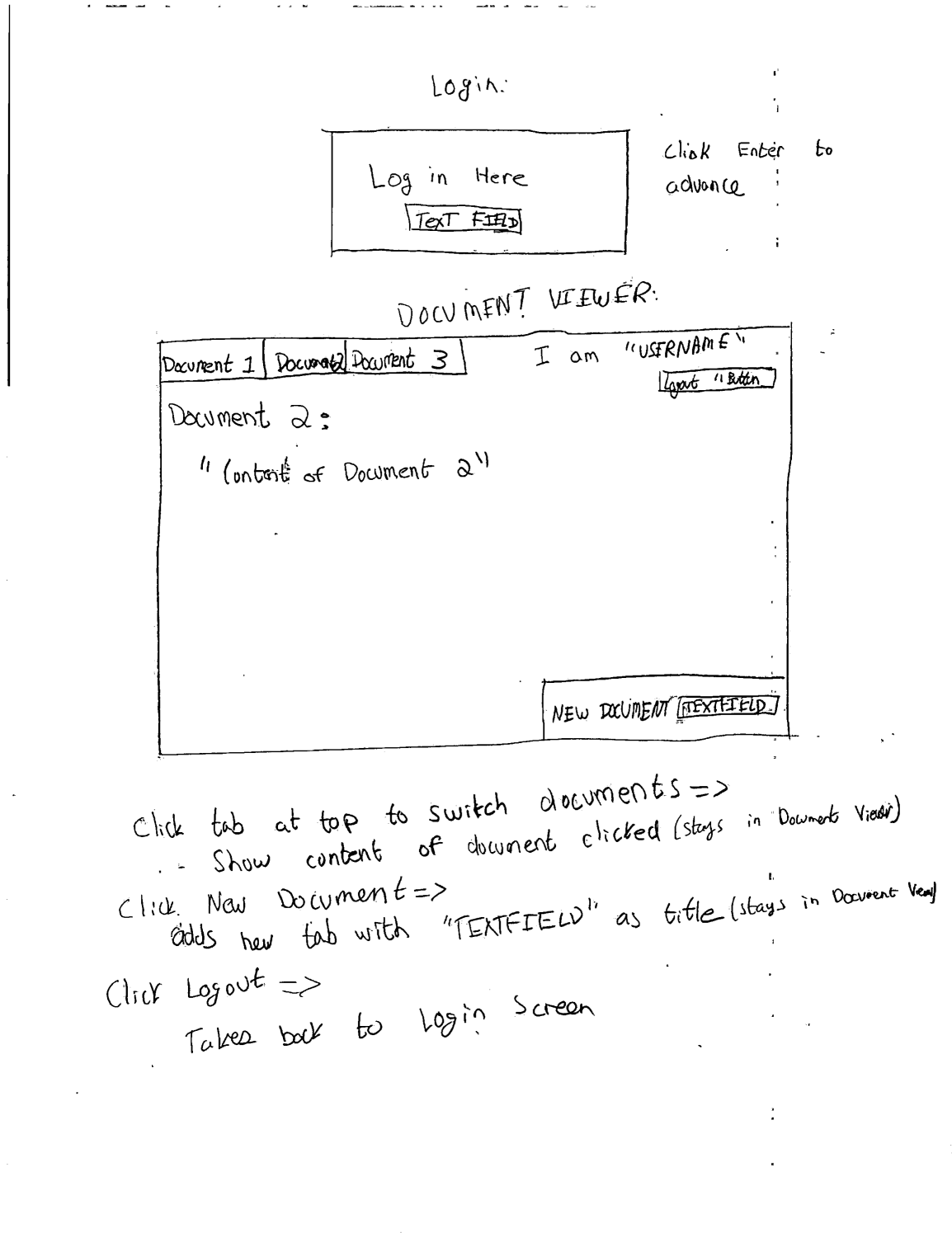**2. How will we allow users to select which document they are working on?**

We thought of two ways to do this. The first way was just to have a new tab open when a user logs in for every document. This would allow the user to have all documents opened at once, but would run into problems when document numbers got large like 100 tabs being open is not efficient. The second way we thought about doing was the way we ended up doing it. Very similar to Google Docs, after a user logs in they would have a table with all the documents they had access to and would just have to click a document to access it. We ended up doing this way f

3. At what views should you be able to make a new document?

This design question was one that brought some debate from our group. Some members of our team thought that there should be a new document button on every view including login screen, and editing document screen. The logic was that it should be easy for a user to create a document and should be done with one button click no matter where in the design the user is. The other two members felt that the new document button should only occur on the table where you select a document. Finally we decided after much debate to only have the new document on the table view. It made the flower clearer and made the design easier.

PROPOSAL: We had 2 user interface design proposals. Both of these are sketched below in a user flow diagram.

IDEA 1:

Login:

Log in Here

TexT FIELD

Click Enter to advance

DOCUMENT VIEWER:

Document 1 | Document2 | Document 3

I am "USERNAME"

Logout "Button"

Document 2:

"Content of Document 2"

NEW DOCUMENT [TEXTFIELD]

Click tab at top to switch documents =>
- Show content of document clicked (stays in Documents Viewer)

Click New Document =>
adds new tab with "TEXTFIELD" as title (stays in Document View)

Click Logout =>
Takes back to Login Screen

IDEA 2:

LOGIN:

Hello there, Enter a name

USERNAME: [TEXT FIELD]
[LOGIN]

Login takes to Document table

Document Table:

[TEXTFIELD]	[New Document (Button)]	[Logout (Button)]
Document table Name	Last Modified	Collab
Paper Name	11:23 AM, 12/3	USERNAME

Logout Button
=> takes to LOGIN

New Document Button
=> takes to Newdocument
with name of TEXTFIELD

Click on Document in table:
takes to Document
Screen for Document clicked on

Document:

Document Name

Welcome!

Collaborators: USER1, USER2

[Exit Doc (Button)]

Exit Doc
=> takes to
Document Table

ANALYSING DIFFERENT IDEAS: As you can see from the above designs, we used these sketches to figure out alternatives to our original idea (IDEA 1). In Idea 1 we felt the tab method would get confusing as more and more documents were created. An alternative method, suggested by one member of our team, was to have a document table where users could select which document they want to edit. Another thing we did not like about the initial idea was having to use the key board to hit the enter key to login. An alternative solution to this was simple as we just created a Logon button that would submit the form.
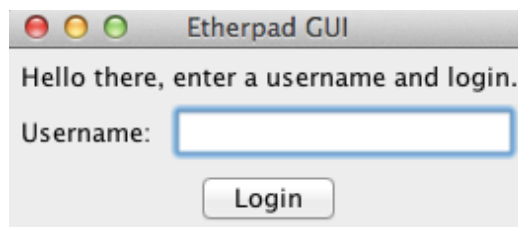
SELECTION: We choose the second design for many reasons. One of the main reasons we choose this design was it seemed more logical and easy for a user to interact with. It is no coincidence that it is very similar to that of Google Docs. Google has always been a leader in UI design, and pride themselves in making their products easy to use. We feel our design makes it easy to use without instructions. Our design also makes it easy to see who is currently working on each document, from either the document view or the table view. After selecting our design we created a mockup of what we think the GUI should look when completed.

THINGS WE REJECTED:
1. We rejected the tab idea pretty quickly. It seemed very inefficient, and not scalable if the server had 100's of documents on it.
2. We rejected the idea of allowing people to login without entering a username. It seemed to cause many problems all around. As a team we felt strongly that any a user should always be able to see who else is editing the document. Without a username there is no identified we can provide to the user. Also if in a later model we want to password protect documents, our infrastructure could easily adapt this feature if we made users have to login from the beginning.
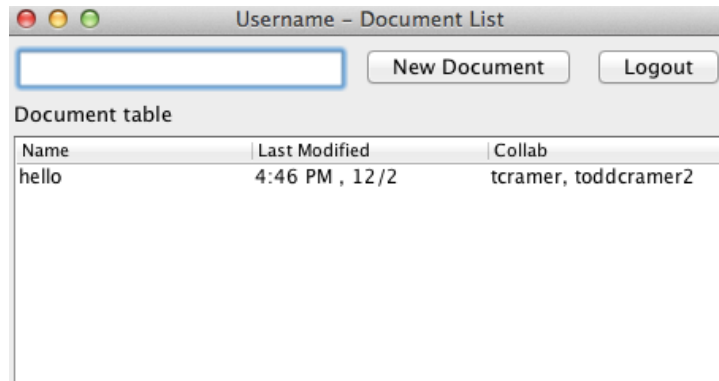
MOCKUPS:
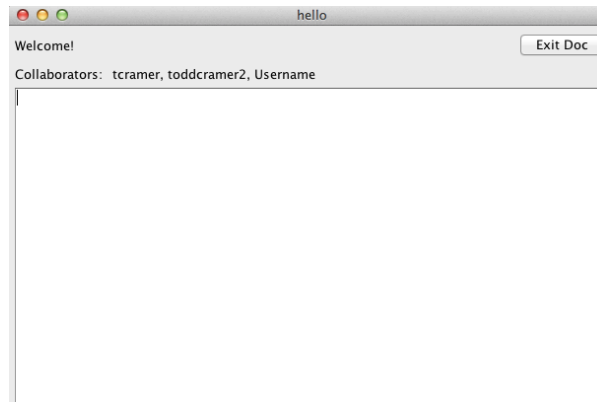
LOGIN

DOCUMENT TABLE

Name	Last Modified	Collab
hello	4:46 PM , 12/2	tcramer, toddcramer2

Username – Document List

New Document   Logout

Document table

DOCUMENT

hello

Welcome!   Exit Doc

Collaborators: tcramer, toddcramer2, Username