Synchronous

Team 10
Sprint 2 Planning Document

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Sprint Overview

The focus for this sprint is to increase functionality of the app and provide a fleshed out user workspace with the typing and file sharing apps built. Since we laid the groundwork for the vast majority of these user stories, we feel that we are better prepared for this sprint than sprint 1, especially since we have all learned a lot more about the tech stack that we are using for this project. We also want to better the UI, to make it seem more like an actual app rather than a combination of vaguely connected pages.

Scrum Master
Shreyas Iyengar

Meeting Plan
Tuesdays/Saturdays @ 6:00pm Eastern

Risks and Challenges

The biggest risk for this sprint is the actual functionality of the apps. If we have to create everything from scratch, it will stretch far more than this sprint and this is something that we can't afford. We aren't trying to reinvent the wheel here, as countless teams before us have made open source tools that fit our needs and are really good at what they do. Therefore, we need to figure out what tools we can use, and how we can repurpose, add to and embed them in our project. We also need to make sure that we don't get sidetracked, and that we spread out our work over this sprint, and not make a final sprint to the finish line in the last week.

Current Sprint Details

User Story 1

As a user, I would like to be able to change my nickname in my workspace so that other users can see who is making changes.

Tasks	Time	Assigned to
Create UI button that allows for changing nickname	1 Hour	Kevin/Ryan
Create textbox to input desired nickname	2 Hours	Kevin/Ryan
Check if nickname is in use, and display error message if true	2 Hours	Kevin/Ryan
Manually test if the nickname updates, and doesn't update on error	2 Hours	Kevin/Ryan

Acceptance Criteria

- Given that the UI has been created properly, when the user presses the change nickname button, they will have an option to change nickname
- Given that nickname changing has been implemented, when the user inputs a new name, the user name correctly updates
- Given that the nickname changing has been implemented, when the user inputs a name that is in use, an error message is displayed

User Story 2

As a user, I would like to be able to add a text document app to my workspace that synchronizes the text with all other users and shows what text I am selecting to them.

Tasks	Time	Assigned to
Find/Create a rich text document app	6 hours	Shreyas/Saksham
Put the app on the app list	2 hours	Shreyas/Saksham
Selected text should be visible to all users	2 hours	Shreyas/Saksham
Manually test all the above tasks	2 hours	Shreyas/Saksham

Acceptance Criteria
- Given that the rich text app has been implemented, it should be available on the app list.
- When a user clicks on the rich text app from the app list, an instance of the app should pop up on the screen for all users.
- A user must have the option to have multiple instances of the app on the screen with each having its own data.
- When one user selects some text, the other users should see the selected texted

User Story 3
As a user, I would like to be able to view and revert to a point in the history of a text document.

Tasks	Time	Assigned to
Allow for users to view previous versions of their text document	3 Hours	Kevin/Ryan
Allow for users to revert to the previous version if desired	2 Hours	Kevin/Ryan
Manually test if reverting to different previous versions all work	2 Hours	Kevin/Ryan

Acceptance Criteria
- Given that the text app has been implemented, when the user needs to look at previous versions, they have the ability to do so
- Given that the text app has been implemented, when the user wants restore a previous version, they have the ability to do so
- Given that the text app has been implemented, when the user restores a previous version, they can edit it

User Story 4
As a user, I would like to be able to create rich text content in a text document app.

Tasks	Time	Assigned to
Allow users to change the font style, size, etc.	2 hour	Saksham
The changes in text design should be reflected on all user screens	1 hour	Saksham
Manually test for all of the above tasks	1 hour	Saksham

Acceptance Criteria
- Given that the text app has been implemented, a user should be able to change the font style, size, etc. of the text in the app.
- Other users should be able to see those changes in text design.
- Given that the text app has been implemented, when a user wants to change font characteristics of existing text, it updates appropriately

User Story 5
As a user, I would like to add suggestions to sections of text in a text document app.

Tasks	Time	Assigned to
Allow for suggestions to be added	3 Hours	Ryan/Kevin
Allow for removal of suggestions	1 Hour	Ryan/Kevin
Manually test if suggestions are visible and that they can be removed	2 Hours	Ryan/Kevin

Acceptance Criteria
- Given that the text app has been implemented, when the user wants to suggest a new idea, they have the ability to do so
- Given that the text app has been implemented, when the user suggest a new idea, everyone is able to see it
- Given that the text app has been implemented, when the user wants to remove a suggestion, the suggestion is successfully deleted

User Story 6
As a user, I would like to create a text document app by uploading a PDF document, an Office Open XML document (.docx), or a plain text file and be able to edit the document's contents (if time allows).

Tasks	Time	Assigned to
Allow for users to upload text based files, and then edit them	3 hours	Ryan
When one user uploads a new file to text edit app, other users should be able to see the new contents, available for edit	2 hours	Ryan
Manually test for all of the above tasks	2 hours	Ryan

Acceptance Criteria

- Given the text app is implemented, a user should have an option to upload a text based file and then see the contents of it on the text editor app.
- Those contents should be editable
- The contents should be visible and editable for other users.

User Story 7

As a user, I would like to be able to download the contents of a text document app as a PDF document, an Office Open XML document (.docx), and a plain text file.

Tasks	Time	Assigned to
Allow for download of contexts of text app	4 Hours	Ryan
Allow for download of the text document app as a PDF	1 Hour	Ryan
Allow for download of the text document app as a .docx	1 Hour	Ryan
Allow for download of the text document app as a .txt	1 Hour	Ryan
Manually test that downloading for all file types works	2 Hours	Ryan

Acceptance Criteria

- Given that the user has created a text app, when the user wants to download the contents as a PDF, a downloadable PDF is created
- Given that the user has created a text app, when the user wants to download the contents as a .docx, a downloadable .docx is created
- Given that the user has created a text app, when the user wants to download the contents as a .txt, a downloadable .txt is created

User Story 8

As a user, I would like to be able to add a chat app to my workspace so that I can communicate with other users connected to the workspace.

Tasks	Time	Assigned to
Create an app that allows users to enter text in a text box and has a button to send the message	5 Hours	Ryan/Shreyas
Allow users to send messages entered into the text box	2 Hours	Ryan/Shreyas

Allow users to see messages sent by other users in the text box	5 Hours	Ryan/Shreyas
Show the sender's name before the text of each message	2 Hours	Ryan/Shreyas
Manually test that messages can be sent and received by users	2 Hours	Ryan/Shreyas

Acceptance Criteria
- Given that a user presses the send message button, their message should be sent
- Given that a user presses the enter key with the textbox focused, their message should be sent
- Given that a user sends a message, other users should see the message that was sent
- Given that a users receives a message from someone else, they should see who sent the message

User Story 9
As a user, I would like to be able to add a file sharing app to my workspace so that other users connected to the workspace can download the file I am sharing.

Tasks	Time	Assigned to
Create/find a way to upload a file	3 hrs	Kevin/Saksham
Create/find a way to store the file in the workspace	4 hrs	Kevin/Saksham
Create/find a way to store the file in the backend	4 hrs	Kevin/Saksham
Create/find a way for each user to be able to view the file	6 hrs	Kevin/Saksham
Create/find a way for each user to be able to download files.	6 hrs	Kevin/Saksham
Test to see if the files shared can be downloaded	2 hrs	Kevin/Saksham

Acceptance Criteria
- The user can access a file sharing app window
- The user can use the file sharing app window to upload a file

- The file can be view and downloaded by other users
- The file persists after the users exit the workspace until the workspace is purged.

User Story 10

As a user, I would like to be able to share any type of file in the workspace.

Tasks	Time	Assigned to
Make sure that we are able to share multiple file types	3 hrs	Kevin/Shreyas
Make sure the user can share multiple files	3 hrs	Kevin/Shreyas
Make sure that each file can be seen by each person	6 hrs	Kevin/Shreyas
Make sure that each user is able to download the file	6 hrs	Kevin/Shreyas
Make sure that the user is limited by file size	2 hrs	Kevin
Test to see that the functionality works.	2 hrs	Kevin

Acceptance Criteria
- Given that a user selects a file and tries to upload the file, the file should be sent to a remote server
- Given that a user uploaded a file, they should be able to download the file
- Given that a user tries to upload a file that is too large, they should be shown an error message
- Given that a workspace is deleted with uploaded files, the files should be deleted from the server they are stored in
- The user can share multiple files, of any file

User Story 11

As a user, I would like to be able to view what apps are minimized in the workspace in a sidebar so I can reopen them.

Tasks	Time	Assigned to
Create a sidebar for holding the minimized app buttons	2 hrs	Shreyas
Route the position of the minimized app button to the sidebar	2 hrs	Shreyas

Create a scrolling mechanism to allow for access to other minimized apps if there are multiple minimized apps.	2 hrs	Shreyas
Clicking on the minimized app button should make the app reappear, and the minimized app button disappear from the sidebar	2 hrs	Shreyas
Testing to see if the functionality works	2 hrs	Shreyas

Acceptance Criteria

- A sidebar exists to hold the minimized app buttons
- When minimizing the app, the minimized app button appears in the sidebar
- Clicking the minimized app button should maximize the app, and the minimized app button should disappear from the sidebar
- If we have multiple minimized app that doesn't fit the window

User Story 12

As a new user, I would like to have a tutorial explaining all the features when using the app for the first time.

Tasks	Time	Assigned to
Create a new page that explains various components of Synchronous	1 Hour	Saksham
Explain what Synchronous is and the motive behind it	1 Hour	Saksham
Explain how to create a workspace	.5 Hour	Saksham
Explain how to open a workspace	.5 Hour	Saksham
Explain how to interact with the workspace (nickname, invites, bugs, etc.)	3 Hours	Saksham
Explain creating apps (Creating new, resizing, etc.)	1 Hour	Saksham
Explain how the different apps work (text, whiteboard, etc.)	2 Hours	Saksham
Manually inspect tutorial page for any bugs are visual errors	1 Hour	Saksham

Acceptance Criteria

- Given that there is a new user, and the user wants wants to learn about Synchronous, there is a page they can visit
- Given that there is a new user, and the user wants wants to learn about creating/opening workspaces, there is a section they can visit
- Given that there is a new user, and the user wants wants to learn about interacting with the workspace, there is a section they can visit
- Given that there is a new user, and the user wants wants to learn about the different apps, there is a section they can visit

Hours Allocated

Kevin Wu	35.5
Ryan Borzello	34
Saksham Jain	33.5
Shreyas Iyengar	33
Total	136 Hours

Remaining Backlog

Functional

1. ~~As a team leader, I would like to be able to create a workspace.~~
2. ~~As a team leader, I would like to set a workspace's unique ID.~~
3. ~~As a team leader, I would like to be able to password protect my workspace during creation so that unauthorized users cannot access it.~~
4. ~~As a team leader, I would like to optionally let others view my workspace without a password but have editing privileges be password-protected so I can share something for others to see but not edit.~~
5. ~~As a team leader, I would like to have my workspace automatically delete itself after 24 hours.~~
6. ~~As a team member, I would like to be able to access a workspace through its URL.~~
7. ~~As a team member, I would like to be able to access a workspace by entering its unique ID.~~
8. ~~As a team member, I would like to be able to send an email out to invite people.~~
9. As a user, I would like to be able to change my nickname in my workspace so that other users can see who is making changes.
10. ~~As a user, I would like to be able to see who else is online in my workspace.~~
11. As a user, I would like to be able to add a text document app to my workspace that synchronizes the text with all other users and shows what text I am selecting to them.
12. As a user, I would like to be able to view and revert to a point in the history of a text document (if time allows).
13. As a user, I would like to be able to create rich text content in a text document app.
14. As a user, I would like to add suggestions to sections of text in a text document app.
15. As a user, I would like to create a text document app by uploading a PDF document, an Office Open XML document (.docx), or a plain text file and be able to edit the document's contents (if time allows).
16. As a user, I would like to be able to download the contents of a text document app as a PDF document, an Office Open XML document (.docx), and a plain text file.
17. As a user, I would like to add objects (Tables, shapes, etc.)
18. As a user, I would like to be able to add a whiteboard app to my workspace that synchronizes all changes on the whiteboard.

19. As a user, I would like to draw on the whiteboard with multiple colors.
20. As a user, I would like to use different marker sizes for drawing on the whiteboard.
21. As a user, I would like to be able to erase strokes on the whiteboard.
22. As a user, I would like to see other people's pointers in a whiteboard app.
23. As a user, I would like to be able to upload an image to the whiteboard app so that I can draw on top of it.
24. As a user, I would like to be able to download the contents of a whiteboard app as a PDF document, a JPG file, or a PNG file.
25. As a user, I would like to be able to add a chat app to my workspace so that I can communicate with other users connected to the workspace.
26. As a user, I would like to be able to add a file sharing app to my workspace so that other users connected to the workspace can download the file I am sharing.
27. As a user, I would like to be able to share any type of file in the workspace.
28. ~~As a user, I would like to be able to minimize, rearrange, and resize an app without affecting what other users connected to the workspace see so that I can customize my workspace layout.~~
29. As a user, I would like to be able to view what apps are minimized in the workspace in a sidebar so I can reopen them.
30. ~~As a user, I would like to be able to delete an app so that I can discard its contents.~~
31. As a user, I would like to download the contents of all apps at once (if time allows).
32. As a user, I would like to upload the contents of all apps to recreate a past workspace (if time allows).
33. As a user, I would like to split the workspace into multiple workspaces within the same session.
34. ~~As a user, I would like to be able to submit bug fixes and user issues to the developer.~~
35. As a new user, I would like to have a tutorial explaining all the features when using the app for the first time.
36. As a user, I would like to be able to edit data in apps if my connection is lost and have my changes be synced when I rejoin the connection (if time allows).

Non-functional

Hosting
1. As a developer, I would like the clients to connect to the database to synchronize changes in the apps in real time.
2. As a user, I would like to be able to create a workspace within 200ms.

Security
1. As a user, I would like my workspace IDs to be guaranteed to be unique.
2. As a user, I would like to have any communication between the client and the server as well as the client and the database be encrypted.

Usability
1. As a user, I would like to access Synchronous on any web browser, including browsers on mobile devices.
2. As a user, I would like the user interface to be intuitive/easy to understand.

Performance
1. As a developer, I would like new updates to the database to be shared to all clients within 500ms.

Resilience
1. As a developer, I would like each of the server's apps to handle at least 1,000 concurrent connections.
2. As a developer, I would like the main server (serving static files) to handle at least 3,000 concurrent connections.