

Status Update Two – CS 2063
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Completed Work Overview

Since the project demonstration the majority of remaining work has been completed including pen customization, naming of users when devices interconnect, and stability and reliability improvements to the preexisting functionality. Additionally, the app has been migrated from primarily using activities to using a single activity and multiple fragments (via the Navigation toolkit provided by Google). Some functionality, such as the colour palette picker and canvas colour customization are works in progress nearing completion.

Scoping and Project Goals

Due to the recent pandemic in-person checkups have needed to be moved online. As such, no new features are planned to be added from this point on beyond what has already started and basic usability improvements (such as a simple file picker). As most work had already been completed, the overall feature richness and project scope are mostly unaffected. The priorities at this point are stability and usability.

Addressing Project Feedback

The feedback from the demonstration was exceptionally positive. There were few concerns expressed about the project and most feedback was feature richness. The primary source of concern was the lack of a help menu which we have implemented and are fleshing out as part of the original scope of the project. Features that were suggested include naming of cursors when sharing a drawing space, persisting drawings after user disconnects, changing the pen size, and customizing the canvas background. All of these features are implementable with minimal effort and as such usernames, pen size changes, and drawing persistence after disconnect have been implemented with canvas customization in progress.

The only two features that were not implemented were brush types and smart endpoint searching. Brush types were not implemented as they would require customizing the canvases Paint object quite heavily, far beyond their current scope. Smart endpoint searching was a feature that would be nice to have and was considered as it may help reduce wrong connections in a crowded room but would require implementing some form of pre-connection information sharing protocol outside of the Nearby Connections API (which handles verification right now). Since there is no way for the app to know if the user entered a valid “key” for the other user it may cause problems as users guess whether the app is slow or they entered something wrong or something went wrong. Ultimately this could be implemented using the unique endpoint ids and rejecting any that don’t match the user’s entered “key” but this is more work than is practical now.

Final Notes

Overall the app is nearing completion and is on track. Many bugs have been fixed and final testing and polish will be coming in the following days.