

Network Project Status Report

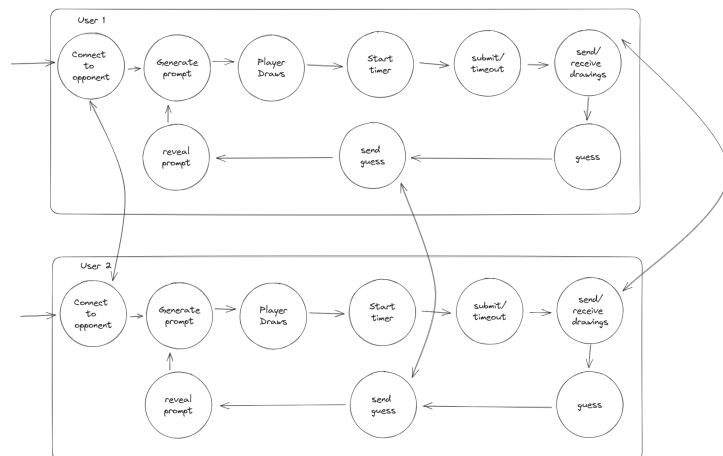
Zachary Nelson, Tyler Popson, Abiy Addis

Current research involves implementing the first key feature of this project: a canvas for illustrations. The Swing framework for Java provides methods for canvas creation that responds to a user drawing or erasing.¹ Using the Swing framework for additional features such as changing brush size or color are also being investigated as well. The Swing framework has many of the necessary methods for a paint component.

The Swing framework provides the methods necessary for our paint component; and can be used in the current and future features. Components using the Swing framework must follow guidelines on the Swing documentation.¹ UI methods are another important part of the Swing framework, and will provide access to program features for a user. In addition to creating an illustration, sending an illustration across the network is also being researched.

Another key feature of our project is sending illustrations over a network. Java provides network utilities such as socket-based communication on the Java documentation.² Our project will run in a peer-to-peer network, the project will need to receive updates as well as update other clients on the network. For this a UDP protocol such as the slide and wait protocol can be used. A TCP protocol that uses socket-based communication is also being considered.

Implementation has begun with the first part of the project's process. In preparing for the first key feature, features such as prompt generation and creating a timer are being implemented. The planned flow for some of these features is below. Prototyping and testing is done in a local environment before testing in a networked environment. Testing on different screen sizes as well as operating systems is an important part of our testing.



Works Cited

“Painting in AWT and Swing.” Oracle | Cloud Applications and Cloud Platform, Oracle, https://www.oracle.com/java/technologies/painting.html#the_summary. Accessed 10 Oct. 2023.

“Trail: Custom Networking (The Java™ Tutorials).” Moved, Oracle, 10 2023, <https://docs.oracle.com/javase/tutorial/networking/>. Accessed 10 Oct. 2023.