**Distributed Shared White Board Report**

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**System Architecture**

**The following diagram shows the general architecture of our distributed shared whiteboards, which allow multiple users to draw simultaneously on a canvas.**

**<image>**

**The main component contains**

1. **A central server that manages all the system state. It is kept up to date with every client changes so that it can broadcast any changes to all other users.**
2. **Users who can draw shapes and send chat messages,**
3. **A white board manager who has all the as a user and some higher privileges such as Kickout user, open, save white board.**

**Advantages of this design are …**

**Disadvantages are …**

**Communication Protocols**

**The communication between server and clients are through sockets using the TCP protocol. Specifically,…**

**The reasons of choosing socket for communication are…**

**The reasons of choosing TCP as exchange protocols are…**

* **Reliable**

**Message Formats**

**All messages are formatted as JSON file using message factory because ….**

**Design Diagrams (UML)**

**<image>**

**Explain about the relation between Model, userController, Application**

**Implementation details**

**<image of Manager window>**

**<image of user join approve dialog>**

**<image of Save/open/confirm dialog>**

**<image of User window>**

**<image of User being Kicked Out dialog>**

* **JavaFx – our GUI**
* **How do we draw shapes onto pane?**
* **How do we handle concurrency? Multi-threading**
* **Database for Storage – Model**

**Appendix**