

- Things that may help a user set up this application
 - Njit cisco webex vpn.
 - This one is not as important as others however for reasons im not completely sure of, being attached to the njit vpn or server can help iron out the bugs that prevent some php from running. The reason why i say maybe is because these errors dont always occur when not attached
 - Haguichi and rabbitmq
 - when running this application it was designed with using haguichi. As such ensure everyone has it downloaded and installed and only one person has set themselves as the server
 - In the rabbitmqini files make sure both parties have the same queues and broker names, while both have the ip address of the host.
 - Make sure a ping is successful on haguichi
 - Have the rabbitmq host run their server
 - Then run the web server should be free to make commands as necessary
 - Phpmyadmin
 - Phpmyadmin should remain running and not require any tinkering from a user
 - Make sure when addressing a command all names are properly typed as this can cause hours worth of uptime
 - Webserver
 - The webserver once deployed with apache should be able
 - Hashpasswording
 - When using hashpasswords or pulling from hashpasswords make sure to pull from the hash password and use the password comparison method(as seen on the login page). The actual haspassword database stores both hashed and unhashed for the purposes of developer ease. However for all functional purposes the unhashed passwords should be ignored
 - Database replication/disaster recovery
 - If for any reason the database goes down
 - The current sql tables are saved and stored in the github, this will allow any developer to run those queries to establish a secondary backup database
 - Firewall
 - Always allow the ips of the individuals accessing the system such as other developers
 - Always allow ports
 - 443
 - 80
 - Deny any port that is unnecessary
 - 445
 - 135
 - 137 -139

- 161 -162
- Etc
- Always test after every single port deny or allow to make troubleshooting easier.