* BUY ( a certain quantity of a particular commodity at a particular price)
* SELL (a certain quantity at a certain price)
* periodically check and reconcile all outstanding trades
* ##everyone to have their own usernames and passwords(authorised users from each organisational unit are able to trade.)
* friendly GUI interface,
* be able to see what current BUY and SELL offers are currently listed
* be able to see all the currently standing offers from my organisational unit in the database and be able to selectively remove them.
* organisational unit, members, individual usernames and passwords, be trading

using the credit balance and assets of the organisational unit they are part of.

* cancel the first offer if I want to create another for more.
* IT Administration team: ability to create new organisational units, edit the number of credits they have, edit the number of each asset they have, be able to add new asset types to the database, add new users and assign them passwords and assign them to organisational units, special types of user accounts that can do this from the GUI client, be able to add new users with the same level of access, so we can give it to anyone new that joins the IT Administration.
* As a user, it would be nice if I could change my own password without having to ask the IT Administration team to do it for me.
* be able to see the price history of that asset – what it has sold for in the past {graph (with the date on the X axis and the price on the Y axis),},
* organisational unit is reconciled, Nothing too obnoxious, when a trade is fulfilled.
* As a systems administrator, would like the client to read from some kind of configuration file to get the server IP address and port to connect to, The server should do the same thing to get its port number
* following things to be stored in a MariaDB or PostgreSQL or SQLite3 database on the server, all kept in one place and they can be backed up easily

User information (username, password, account type, organisational unit) • Organisational unit information (organisational unit name, credits, assets and the quantity of each asset) • Asset types (asset names) • Current trades (BUY/SELL, organisational unit, asset name, quantity, price, date) • Trade history (same as above)

* no plaintext passwords(hashed)

week8

Your requirements document as it currently stands. • Your detailed design document as it currently stands. • Your current plan for the next 2 weeks (sprint planning). Keep this realistic and achievable; and describe what each team member will be doing in that time. • A video showing your progress (including showing the documents and your plan for the next 2 weeks.) Maximum length: 4 minutes.

Week10

Your requirements document as it currently stands. • Your detailed design document as it currently stands. • Your current plan for rest of the project duration. • A video showing your progress since the Week 8 milestone (including showing the documents and your plan for the rest of the project.) Maximum length: 4 minutes.

Client and sever applications

The design of the database schema

The design of the network protocol used by the client and server to exchange information.

Test classes ♣ Exceptions ♣ GUI forms

The following project is a electronic asset trading platform, which allows organisational units to trade freely on the platform. For the platform, it is totally obeying the market model, which organisational units do not need agree to trade synchronously, they can easily finalise their trades on the sell and buy orders. The currency used in the platform is virtual credits which is allocated by system, organisational units could flexibly add different types of assets to trade by the virtual credits.

The platform is using client-server model that all users’ information and trading details are saved in one server. Additionally, the number of commodities in the database, the number of trades that can be listed and the number of users using the system should not any limitations. Lastly, each user needs to log in by their authorized username and password for different roles.

There are four roles in the platform, which are leaders of organisational unit, users, IT administration team member and system administrators. These four roles have different authorities and functions in the platform to operate the whole system. In the platform, the users as an essential element are able to sell and buy offers of assets, moreover they also have abilities in change offers’ price and quantity which made by themselves as well as checking current listed sell and buy offers. Some other supporting functions like checking commodities historical price (in graph) and changing of their passwords. As for the leader of the organisational unit, beside the user’s function they also have authority to manage the risk which is cancelling or changing offers made by users who are under the organisational unit. IT administration team implements most of the control and management functions in the platform. Firstly, organisational units and users are created by IT administration team, they are also required to assign each new user an original password and an organisational unit. Secondly, the IT administration team can edit the numbers of assets and credit points for every organisational unit. Lastly, the IT administration team also have authority to add new a type of asset to the database. For the system administrator, basically it askes a configuration file for both of users and itself could aware the IP address and port of the server. The data of users’ information needs to be stored on MariaDB or PostgreSQL or SQLite3 database for easy back-up. Lastly, the head of IT security requires the password whether in the log in interface or database needs to be encrypted.