

Product requirements:

Importance Ranking:

To help prioritise the individual product requirements we allocated each one an importance rating. To begin, any requirements that are deemed vital to the basic functionality of the software will be marked as Must Have ('M'). Requirements that may not be totally vital to the software running but still provide important features will be marked as Should Have ('S'). Requirements that are unnecessary yet still provide some form of slight importance will be marked as Could Have ('C'). Finally, requirements that are not feasible to have finished within the time span, or redundant due to other features will be marked as Won't Have ('W').

Requirements will be marked as from most important to least important as follows:

- Must Have (M)
- Should Have (S)
- Could have (C)
- Won't Have (W)

Priority Number:

Each requirement is given a Priority (numerical value). Any requirement with a priority of 1 is of utmost importance and will be worked on in the early stages of the project. Requirements with a priority of 2 and so on, is of respective importance and will be worked on in this order. Using this priority helps organise the order of which features must be completed more accurately than the importance rankings.

<u>Number</u>	<u>Title</u>	<u>Description</u>	<u>Importance</u>	<u>Priority</u>
1.	GUI	A user friendly GUI must be incorporated that will allow users to easily use the marketplace	M	1
2.	Login	Users must login to an account before accessing any	M	1

		of the markets features		
3.	User Accounts	Each user must have a unique login connected to their account. Each account will have appropriate permissions	M	1
4.	Organisation Permissions	Users accounts must be linked to the appropriate organisation allowing them to trade using the organisations assets and balance	M	1
5.	Order Removal	Users must be able to see all current BUY/SELL order listings made by their organisation and remove them	M	1
6.	Order Listing	Users should be able to list a BUY/SELL order for their organisation, this order will then be visible to all other users	M	1
7.	Automatic Order	When a sell order is listed	M	1

	Completion	at a price lower than a buy order for that asset, the order should automatically be completed at the sell orders price.		
8.	Database Limits	No artificial limits should be added to the number of commodities, trades or users	M	1
9.	Fractional Order Completion	When only a fraction of a SELL/BUY order is complete the number of assets to be sold/purchased should be updated accordingly	M	2
10.	Credit Balance and Asset Tracking	The balance of each organisation's credits and assets should be stored in the database. These should update accordingly when trades are made	M	1
11.	Administration Permissions - Create organisation	Technical Administrators should have special	M	1

		permissions to create and delete organisational units		
12.	Administration Permissions - Credit Management	Technical Administrators should have special permissions to edit the number of credits and assets an organisation has	M	1
13.	Administration Permissions - Asset Management	Technical Administrators should have special permissions to add and delete asset types	M	1
14.	Administration Permissions - Account Management	Technical Administrators should have special permissions to add new users and assign them login details as well as organisations. They will need to be able to assign appropriate permissions to these accounts	M	1
15.	Password Encryption	To ensure password safety all	M	1

		passwords being stored or sent over the network should be encrypted		
16.	Database Storage - User Info	The following information must be stored in the database in an appropriate table: username, password, account type, organisational unit	M	1
17.	Database Storage - Organisation Info	The following information must be stored in the database in an appropriate table: organisational unit name, credits, assets and the quantity of each asset	M	1
18.	Database Storage - Asset Types	The following information must be stored in the database in an appropriate table: asset names	M	1
19.	Database Storage - Current Trades	The following information must be stored in the database	M	1

		in an appropriate table: BUY/SELL, organisational unit, asset name, quantity, price, date. This information should be stored for any current trade		
20.	Client-Server Model	1 server must be run that users will connect to when accessing the marketplace	M	1
21.	Users Adding Assets	Users should be able to add new asset types to the database	M	2
22.	Order Completion	Users should be able to accept BUY/SELL orders. This would complete the order, transferring the credits and assets to the appropriate organisation	S	2
23.	Order Viewing	Users should be able to view all current BUY/SELL orders	S	2

24.	Order Searching	Users should be able to search BUY/SELL orders to view specific results	S	2
25.	Credit and Asset Trade Restriction	When listing a BUY/SELL order the user will not be able to trade with assets or credits that is not currently in the organisations possession	S	2
26.	Balance Checking	Users should be able to check the current balance of its organisations credits and each of its assets	S	2
27.	Database Storage - Trade History	The following information must be stored in the database in an appropriate table: BUY/SELL, organisational unit, asset name, quantity, price, date. This information should be stored for any previous trades	S	2

28.	Configuration	Any client should receive the servers IP address and port from a configuration file. The server should also get its port from this configuration file.	S	2
29.	Password Management	Users should be able to change their own password without the assistance of an administrator	S	3
30.	Order Filtering	Users should be able to filter BUY/SELL orders by organisation and other applicable categories	C	3
31.	Trade History	Users should be able to see the price history of assets sold. This should be displayed in a line graph showing price over time (Similar to that of stock price charts)	C	3
32.	Trade	For any user,	C	3

	Notifications	when a trade within their organisation is fulfilled a notification should be displayed alerting them of this		
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