Project Proposal: Agricultural Database

Java - 2

Rajiv Parasnauth - 991367364,

Shane Guther - 991529673,

Patrick Coster - 991317799

Project Overview

With our focus being on the agriculture industry, we will keep track of many different types of agricultural information. The database will include things like types of crop, price of crop, how many crops are currently harvested, whether it is available for sale and the area of the farm where the crop is located.

The database will be intended for farmers that want to keep track of everything in their inventory in order to better manage their farming business. The database can also be used as a communication tool between the farmer and their customers. The customer can keep tabs on how much stock of a certain item the farmer has and how much the items are priced at. Since the values are all dynamic, the farmer may change the information in the database as he sees fit.

The purpose of this application is to solve the problem of farmer's being overburdened by their ever-complicating and evolving agricultural business. Farmers have a lot of work to do every single day to ensure that their resources get properly taken care of and they supply their customers with what they need. Having a database can ease the difficulty of this process by letting a farmer easily organize everything he needs to.

Our application will have many features and functions. A main feature of our database is that all of the information is dynamic which means it is characterized by constant change and can be edited freely at any point. The database will allow you to add new elements into the database along with the different types of applicable information that would go with it. You can also delete items from the database. You can also edit any item already in the database in case you want to rename anything or edit any of its other values.

An ideal interaction with the database would look like a farmer coming home after a long day of working on his farm and updating the database with new livestock that he purchased earlier that day, adding to his number of harvested crops available, editing the prices of his harvested crops based on his supply and their demand, etc. At the end of the day, the farmer goes to bed feeling assured that he has properly organized everything on his farm.

File: agriculture.csv		
Description	**Data type**	**Comments**
Item.id	String	Item ID, identified by name(e.g Corn, Tomato)
Type	String	Type of supply(e.g Crop, root, grain)
Quantity in lbs	integer	Quantity represented in pounds
Harvest State	boolean	Boolean harvest state, represents if the supply is out in the fields or in storage
Price Per Pound	double	Price represented by a single pound of the supply
Section	char	Section of the farm that the supply is located

User Interface

Administrative View

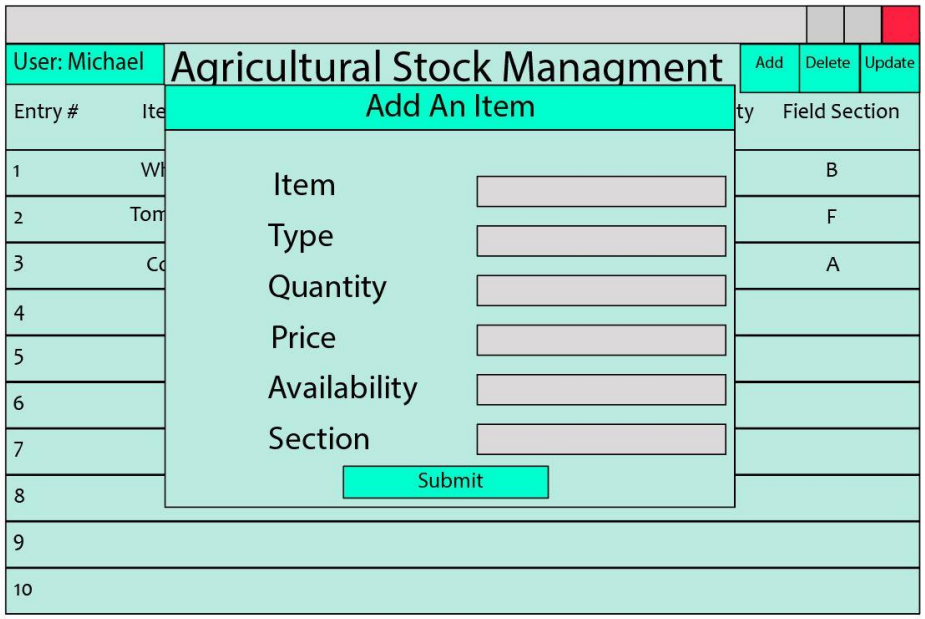
User: Michael

Agricultural Stock Managment

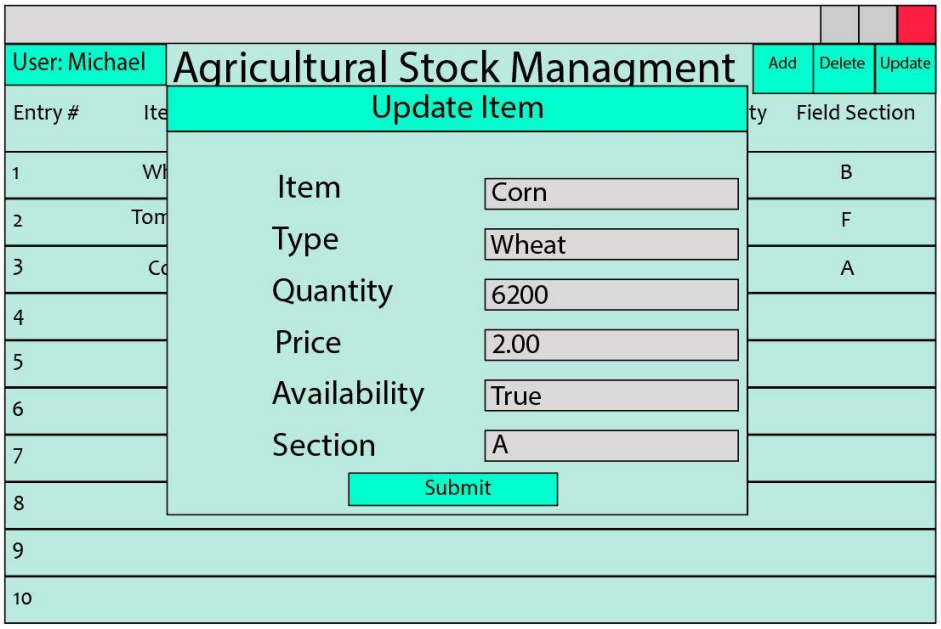
Add | Delete | Update

Entry #	Item	Type	Quantity (lb)	Price Per Pound	Availability	Field Section
1	Wheat	Grain	8000	1.78	True	B
2	Tomato	Plant	1550	2.50	False	F
3	Corn	Grain	6200	2.00	True	A
4						
5						
6						
7						
8						
9						
10						

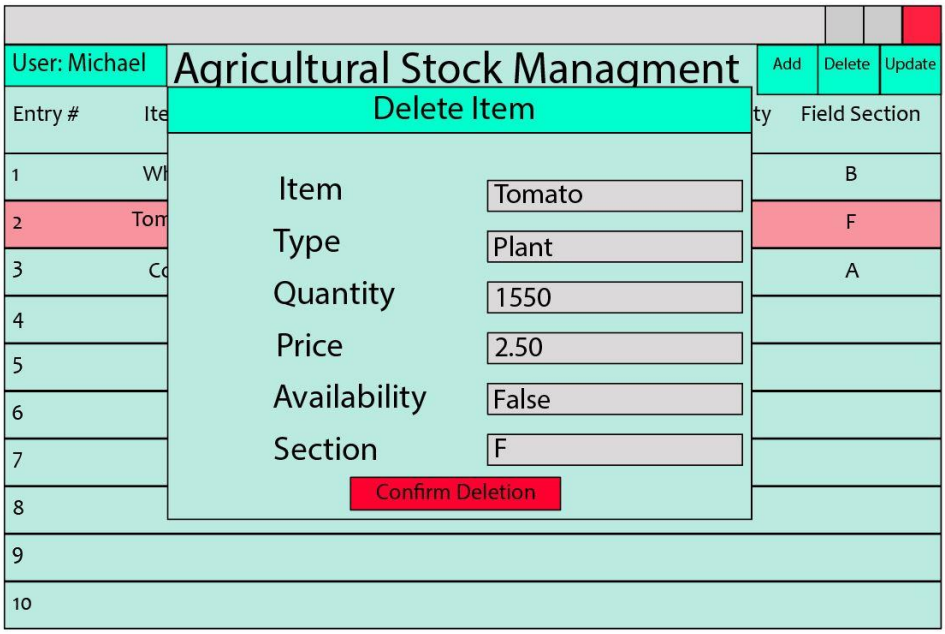
Add Item



Update Item


User: Michael
Agricultural Stock Managment
Add
Delete
Update
Update Item
Entry #
Field Section
Item
Corn
Type
Wheat
Quantity
6200
Price
2.00
Availability
True
Section
A
Submit

Delete Item

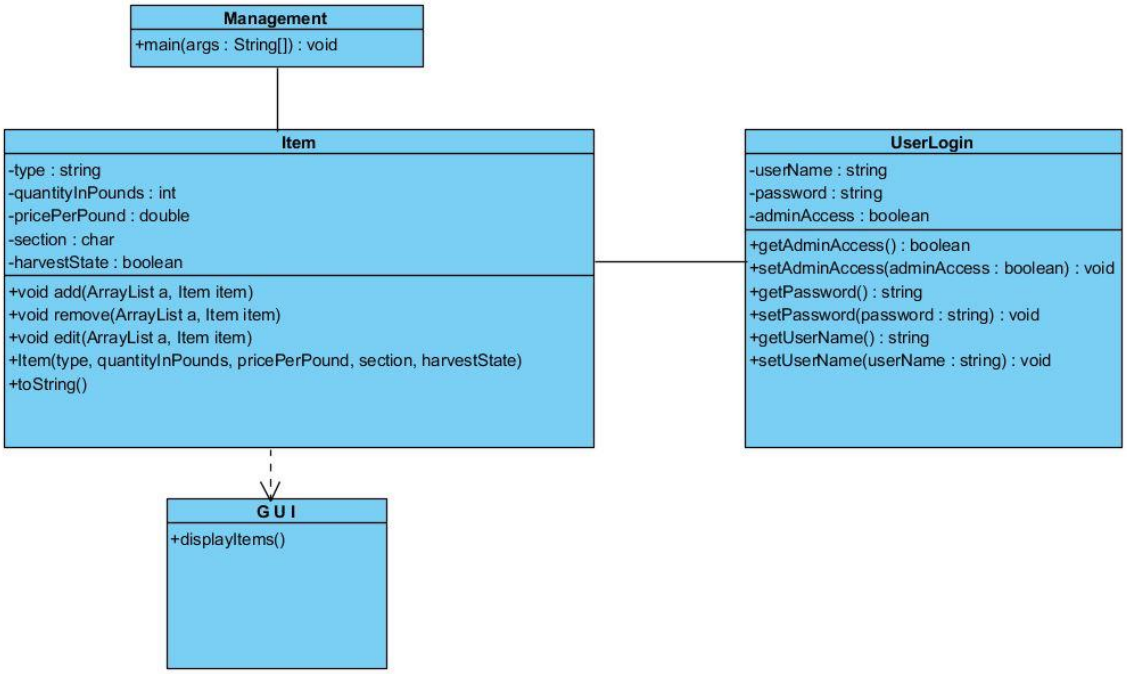

User: Michael
Agricultural Stock Managment
Add
Delete
Update
Delete Item
Entry #
Field Section
Item
Tomato
Type
Plant
Quantity
1550
Price
2.50
Availability
False
Section
F
Confirm Deletion

Customer View

Agricultural Inventory

Entry #	Item	Type	Quantity (lb)	Price Per Pound	Availability	Field Section
1	Wheat	Grain	8000	1.78	True	B
2	Tomato	Plant	1550	2.50	False	F
3	Corn	Grain	6200	2.00	True	A
4						
5						
6						
7						
8						
9						
10						

UML Diagram



Final Paragraphs

The development environment will involve NetBeans to do Java Programming, file management, graphical user interface, and system management. Visual Paradigm will be used to help organize and visual represent our code.

Java Proposal – Java 2

Before development starts, we will be researching the interworking of a standard agricultural environment including which kind of crops are popularly grown and the different attributes that go with them. Finding out this information is critical and will help us understand which kind of information is necessary to include in our database.

Work will be delegated evenly throughout the project so that each member of the group will be able to contribute a reasonable amount towards the project. Rajiv will work on the main class primarily while also providing insight on the other classes and link them to the main. Patrick will work on implementing the GUI features of the project while also giving insight about features and functions of the classes. Shane will work on developing the other classes and testing the program for bugs/inefficiencies as the project progresses.