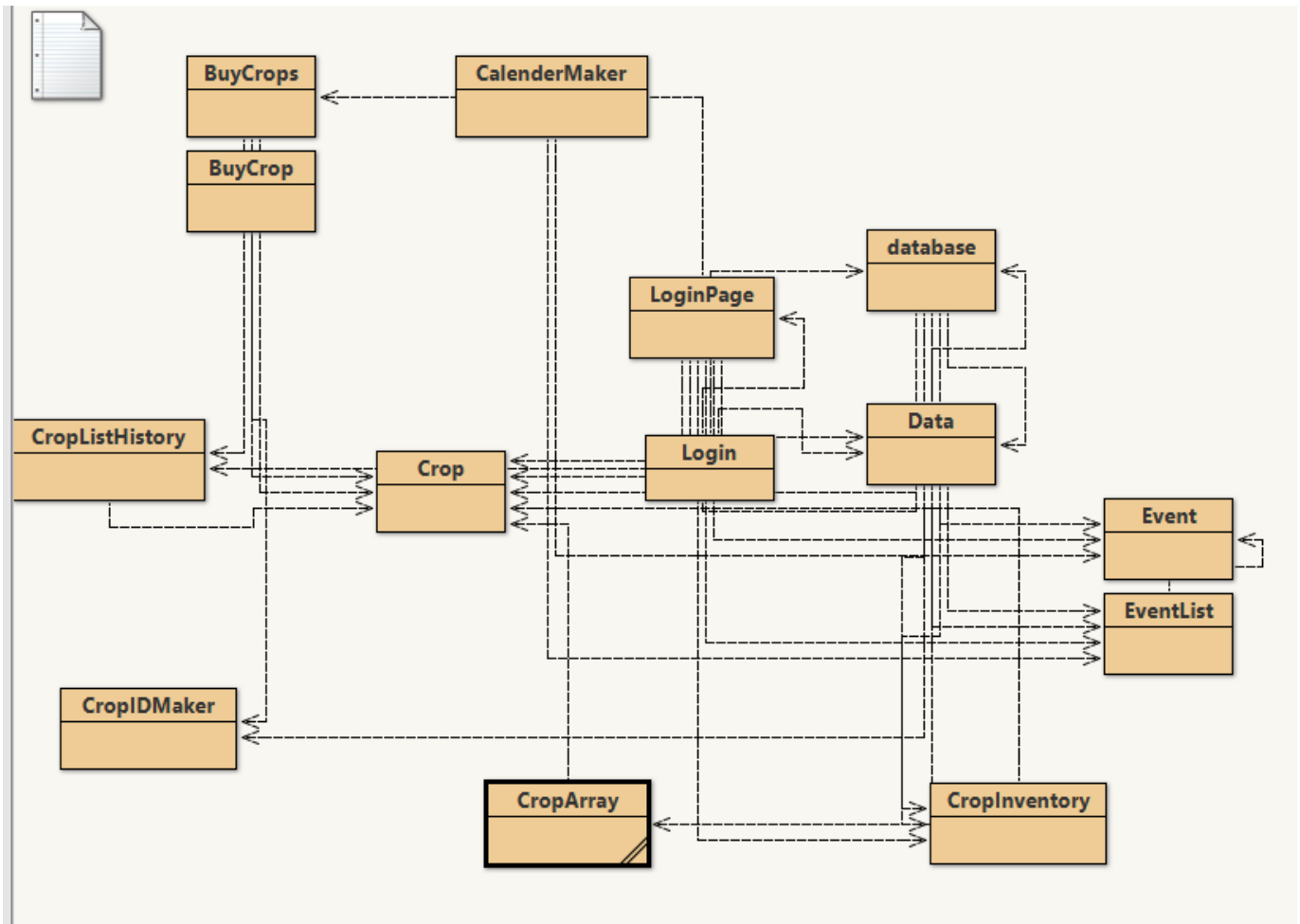
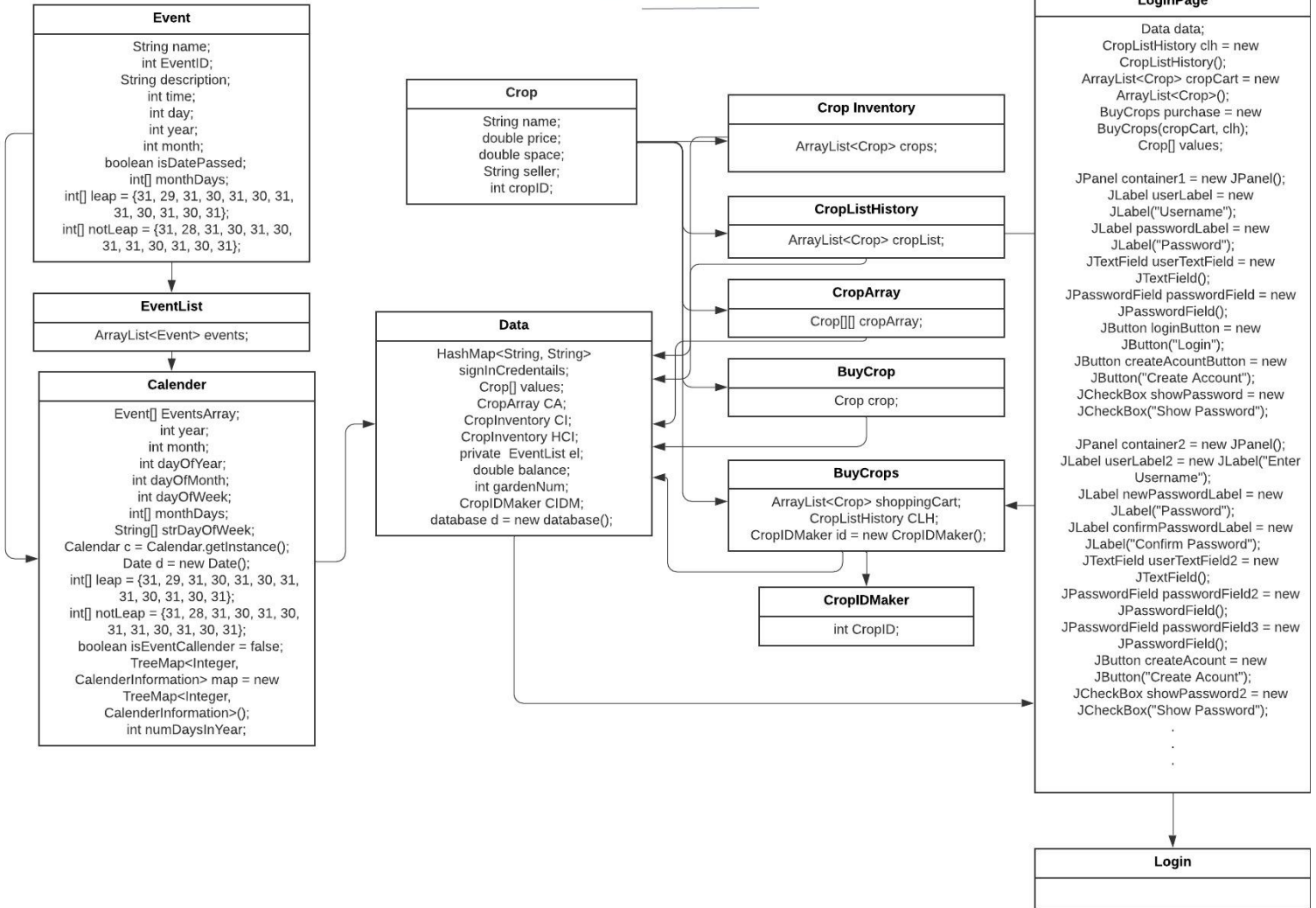


### Criterion B: Design



# UML class



### Functionality of Each Class

Crop: Stores information about crops including their name, price, seller, and the amount of space they take up.

BuyCrop: Contains all the information for the purchase of a single crop.

BuyCrops: Handles the transaction of multiple crops. It creates and populates a shopping cart of all the crops that will be bought.

CropListHistory: Contains information about the crops that have previously been bought. Creates a list and adds new crops that have been bought.

CropIDMaker: Assigns unique integer values to each crop.

CalanderMaker: Creates a calendar that will be used to keep track of important events.

CropArray: Creates a 2 by 2 grid representation of the Garden. Contains information about what plants are planted in the garden and contains functionality that allows plants to be added or removed.

CropInventory: Creates a list of crops

Event: Allows for an Event to be created and contains all the information for events

EventList: Creates a list of Events

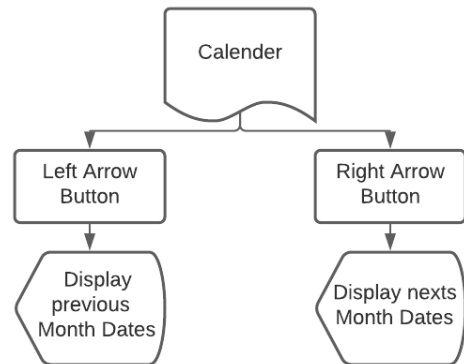
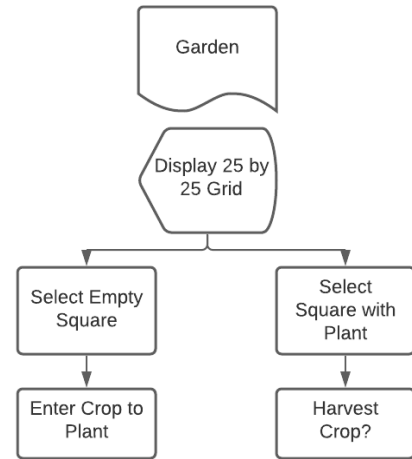
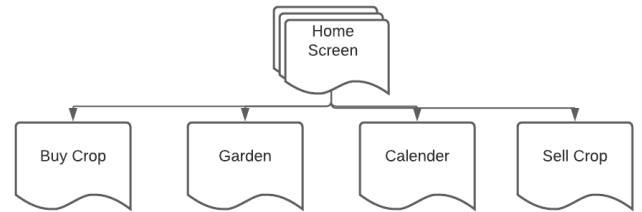
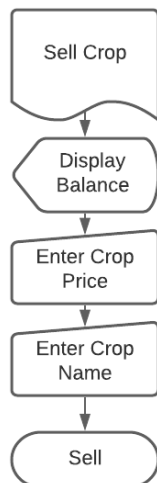
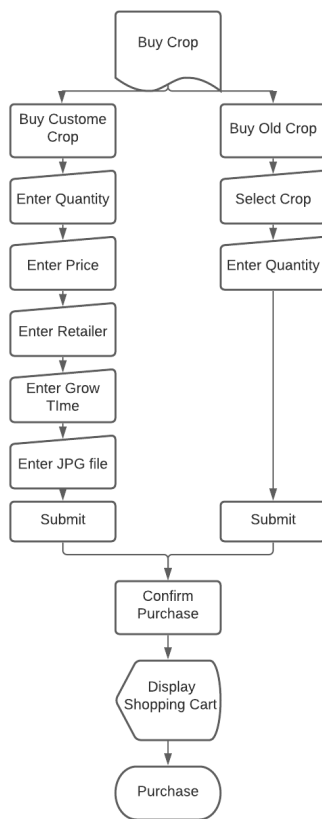
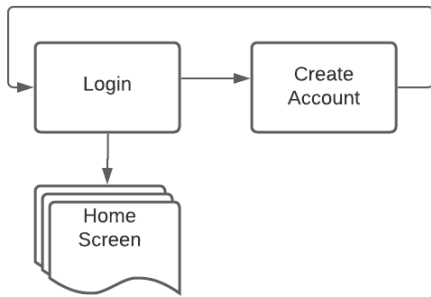
Data: Holds significant information such as EventLists, Crop Inventories, CropArrays, etc.

Database: Reads and writes all the information from data onto a text file.

LoginPage: Creates the GUI for the entire program

Login: Runs the GUI program

## Flow Charts



## Graphics User Interface

### Login and Create Account

The image displays two side-by-side screenshots of a "Log in" window. The left window shows the login form with fields for Username, Password, and a "Show Password" checkbox, along with "Login" and "Create A..." buttons. The right window shows the same form but with an additional "Confirm Passw..." field and a "Create A..." button at the bottom.

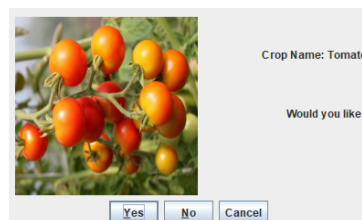
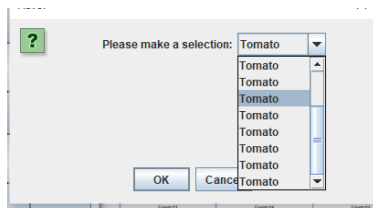
### Purchase Crop and Receipt for Crop Purchase

The image displays two side-by-side screenshots of a "Log in" window. The left window shows the "Buy Crop" tab with fields for "Buy New Crop" and "Buy Old Crop", including crop name, quantity, price, retailer, growtime, and image, along with "Submit" and "Confirm Purchase" buttons. The right window shows the "Receipt" tab with a list of purchased crops and "Back" and "Purchase" buttons.

## 25 by 25 grid Representation of a Garden with no Crops Planted

|            |         |         |         |         |
|------------|---------|---------|---------|---------|
| New Garden |         |         |         |         |
| Empty1     | Empty2  | Empty3  | Empty4  | Empty5  |
| Empty6     | Empty7  | Empty8  | Empty9  | Empty10 |
| Empty11    | Empty12 | Empty13 | Empty14 | Empty15 |
| Empty16    | Empty17 | Empty18 | Empty19 | Empty20 |
| Empty21    | Empty22 | Empty23 | Empty24 | Empty25 |

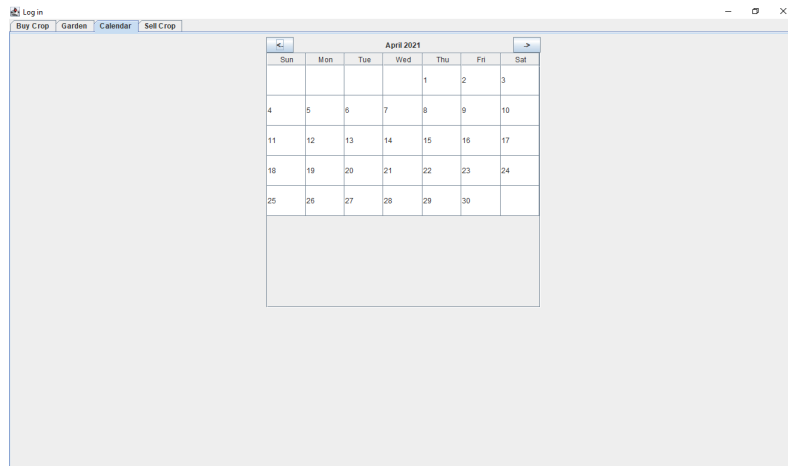
## Picking a Crop to plant and then Harvesting a Crop once planted



## 25 by 25 grid with some Plants planted

|            |            |         |         |         |
|------------|------------|---------|---------|---------|
| New Garden |            |         |         |         |
| Empty1     | Tomato     | Empty3  | Empty4  | Empty5  |
| Empty6     | Watermelon | Empty8  | Empty9  | Empty10 |
| Empty11    | Empty12    | Tomato  | Empty14 | Empty15 |
| Empty16    | Empty17    | Empty18 | Empty19 | Empty20 |
| Empty21    | Empty22    | Empty23 | Empty24 | Empty25 |

## Calendar



## Selling Crops

