Front Yard Sale

The Frontenders

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Final report

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1. Introduction

This final project report is about our project that at its base level is a bidding website. Our assignment allows users to create an account to our website and have the ability to login afterwards. Once an account has been created users are able to bid and sell items on a website. The website allows users to browse through biddable items and checkout through a cart system. Admins for the site are also able to monitor for any ban able activity.

This document goes over requirements set over the entire duration of the project. This includes functional requirements, user interface requirements, and non-functional requirements. Implementation of the project is also discussed, containing the technologies used as well as screenshots of the final product. Testing was also preformed on our project with various test cases and the results are seen below. Risk management is discussed the very end and we explain solutions that were presented throughout the project.

2. Requirements status

Functional requirements status table:

ID	Description	Status	Justification or comments
1.1	Create Account • The user shall be logged on their account • Select the create account option on homepage • The user shall enter the necessary information • The server shall confirm that there are no duplicates of usernames	Complete	

ID	Description	Status	Justification or comments
1.2	Login • The user shall access the homepage and select log-in option • The user shall input their credentials • The server shall verify that the credentials match • The server shall log-in the user if credentials are correct	Complete	

ID	Description	Status	Justification or comments
1.3	Auction Item • The user shall complete the log-in steps from 1.2 • The user shall select the auction option • The user shall enter in appropriate fields: o Title of product o Brief description of the item o Starting bid price o Bidout price if applicable o Time period of the bid	Complete	

	o Picture of item • The user shall confirm the creation of the item to the auction homepage • The server shall add the item to the homepage for other users the bid for the item mentioned in 1.4 steps		

ID	Description	Status	Justification or comments
1.4	Bid for Item • The users only have one bid per item and shall not see what other users have bid • The user shall select the bid button and enter the amount of money they shall bid • The user shall receive a notification when the bid is finished; show whether they won or lost the bid • The user shall be redirected to exchange information to the auctioneer user to obtain shopping and payment information	Complete	

ID	Description	Status	Justification or comments
1.5	Bid Suggestions • The user shall complete the 1.4 for bidding for an item • The server shall use keywords from the item's name and description the user had bided on to search for similar items to auction • The user shall receive notifications of similar items to bid for	Removed	We had too much trouble with the basics behind auctioning and bidding so this functionality is removed for time constraints.

ID	Description	Status	Justification or comments
1.6	Search for items to bid on • The user shall select the textbox designated for searching at the top of the webpage • The user shall enter keywords using their keyboard into the textbox • The user shall select the icon next to the textbox to enter their input into the system • The system shall use the user's input to search the database for available items users can currently bid on • The system shall display the results in descending order from most keyword similar items to least keyword similar items to the user	Complete	

ID	Description	Status	Justification or comments
1.7	Search results to auction • The user shall see auctioned items on webpage to be bided for • The user shall select one item from the webpage • The user shall transition from the search results webpage to the selected item's auction webpage	Removed	This feature is not extremely necessary to implement to have the system working so it is the least of our priority.

ID	Description	Status	Justification or comments
1.8	Update Bid • After a user has completed the steps from 1.4, the system shall observe the bided amount • The system shall compare the bided amount with the item's current highest bid • Should the bided amount be higher, the system shall update the item's current highest bid amount to the bided amount • Should the bided amount be higher, the system shall update which user had placed the now highest bid on the item • Should the bided amount be lower, the system shall make no changes to the item's data	Complete	

ID	Description	Status	Justification or comments
1.9	Checkout • After bidding on an item (1.4) and users decide to checkout they will click the checkout button • Users will then fill out corresponding payment information • Once done users will confirm info.	Complete	

ID	Description	Status	Justification or comments
1.10	Logout • Once users decide to logout, they can press the logout button • This will return you to the login screen	Complete	Php sessions keep track of login and logout.

ID	Description	Status	Justification or comments
2.1	Create Management Account • The admin user shall follow the steps from 1.1 • The admin user shall verify with peer admin to validate the account creation • The new admin account shall be created with special privileges	Removed	Time constraints plus lack of knowledge makes all admin functionality difficult to implement.

ID	Description	Status	Justification or comments
2.2	Remove Item • The admin user shall be logged on their account • The admin shall select the settings option on the item off the auctioning page • The admin shall select the delete option and confirm deletion of the item • The server shall remove the item from the auctioning database	Removed	Time constraints plus lack of knowledge makes all admin functionality difficult to implement. Instead the team will be phpMyAdmin to remove items from the database if needed.

ID	Description	Status	Justification or comments
2.3	Edit/Update Database Info • The admin user shall be logged on their account • The admin shall select the settings option on the item off the auctioning page • The admin shall change the fields of the items that need to be updated • The admin shall confirm the changes • The server shall change the information in the database	Removed	Time constraints plus lack of knowledge makes all admin functionality difficult to implement. Instead the team will be phpMyAdmin to edit and update database if needed.

User Interface requirements status table:

ID	Description	Status	Justification or comments
3.1	UI – Home screen The first screen seen by user. Will give three options: create account, login, and search. The create account and login button are located in the top left of the screen and the search bar is in the middle of the page.	Complete	

ID	Description	Status	Justification or comments
3.2	UI – Create Account Accessible after clicking on the create account button on the home screen. Prompts are given for user to fill out: first name, last name, username, email, age, gender, password, and anonymous setting. To finalize, there is a create account button at the bottom of the page.	Complete	

ID	Description	Status	Justification or comments
3.3	UI – Login Accessible after clicking on the login button on the home screen. Prompts user for username and password; followed by a confirm button beneath it.	Complete	

ID	Description	Status	Justification or comments
3.4	UI – After Login (Search Page) Lets user create auction with button on top left, logout with button on top right, or search for item with search bar in the center.	Complete	

ID	Description	Status	Justification or comments
3.5	UI – Auction Page Accessible after clicking the create auction button on the after login screen. Prompts user to fill out: product title, product description, starting bid price, bid time period, and photo of item. This is followed by a confirm or cancel auction button at the bottom of the page.	Complete	

ID	Description	Status	Justification or comments
3.6	UI – Bid Page Accessible after choosing an item to bid. Currently has a prompt for a bid amount and the choice to confirm or cancel bid. Users will be able to see the biddable item and its description.	Complete	

ID	Description	Status	Justification or comments
3.7	UI – Transaction Page Accessible after the time period for a bid is done. Users are prompted with their credit card information (card holder name, credit card number, date on card, and CVC). This is followed by a confirm button at the bottom.	Complete	Is present but the transaction function will not work for security reasons.

Non-Functional requirements status table:

ID	Description	Status	Justification or comments
4.1	The website needs to be able to support at least 3 users at once	Complete	

| ID	Description	Status	Justification or comments
4.2	The user must be able to move into different sections of the web application such as from a search results page to an auction page within 10 seconds of receiving user input.	Complete	

ID	Description	Status	Justification or comments
4.3	An item must become available to bid on within 1 minute of its designated starting time.	Complete	

ID	Description	Status	Justification or comments
4.4	An item must become unavailable to bid on within 1 minute of its designated ending time.	Complete	

3. Implementation

3.1 Implementation details

The technologies used for this web application are all in the xampp application. The xampp application uses apache server for the main server. The database used for the application is mySQL, with php for the controller to communicate between the frontend and backend. The framework used for the frontend user-interface was bootstrap. Since our application is mainly frontend and backend communication, the architecture chosen was monolithic because the client and server communication with each other but the auctions.

Client Prespective — User Interface

Business Logic — Data Interface

Information Storage — Database
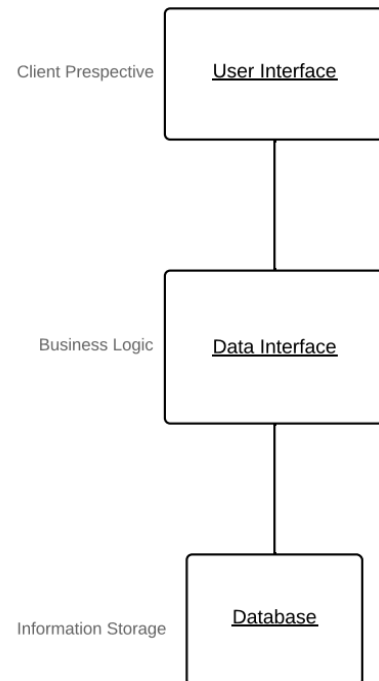
3.2 Snapshots of application

Initial Home Screen:
When you visit the website for the first time, this is the default page you'll see. The user has no account and is not logged in.
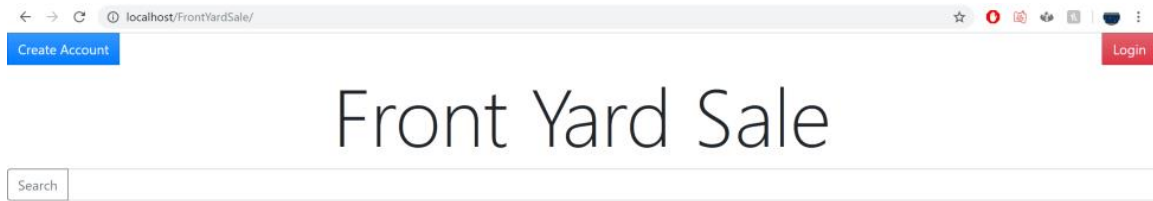
Create Account:
After user selects the create account button on the home screen this is the page that will be shown. Users are prompted with required inputs that are needed for an account to be created in the website. Users are able to move on once requirements are met and the create account button is selected.

Home page after login:
This is what the user will see after logging in. It is similar to the initial home page but with different features and instead of a login button there is a logout button. Users are able to see the items that they have searched from the search bar, create auction, and have access to account settings.

Create Auction   Account Settings   Logout

Front Yard Sale Auctions

Welcome Mark-Anthony

Search Items

Item Name: Apple
Description: Edible fruit for organic consumption.
Minimum Bid: $1.23
Auction End Date: 2019-12-01 15:54:00
This Auction has Ended
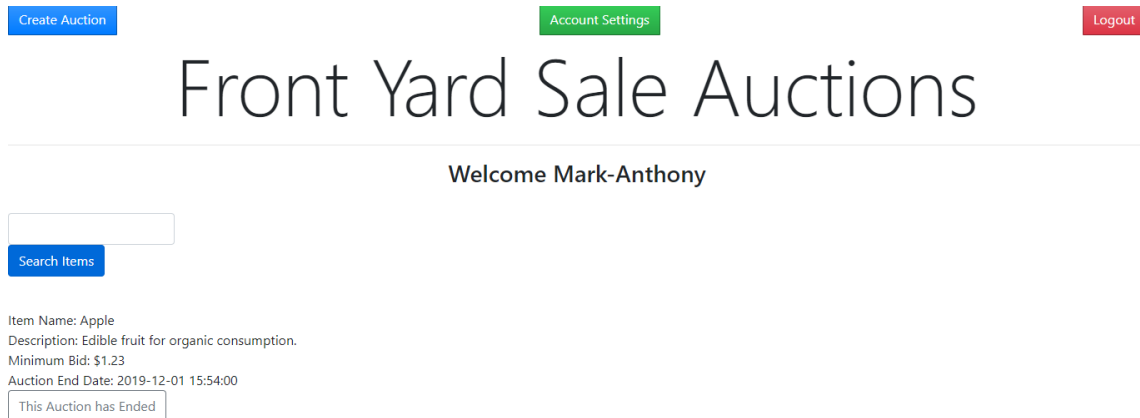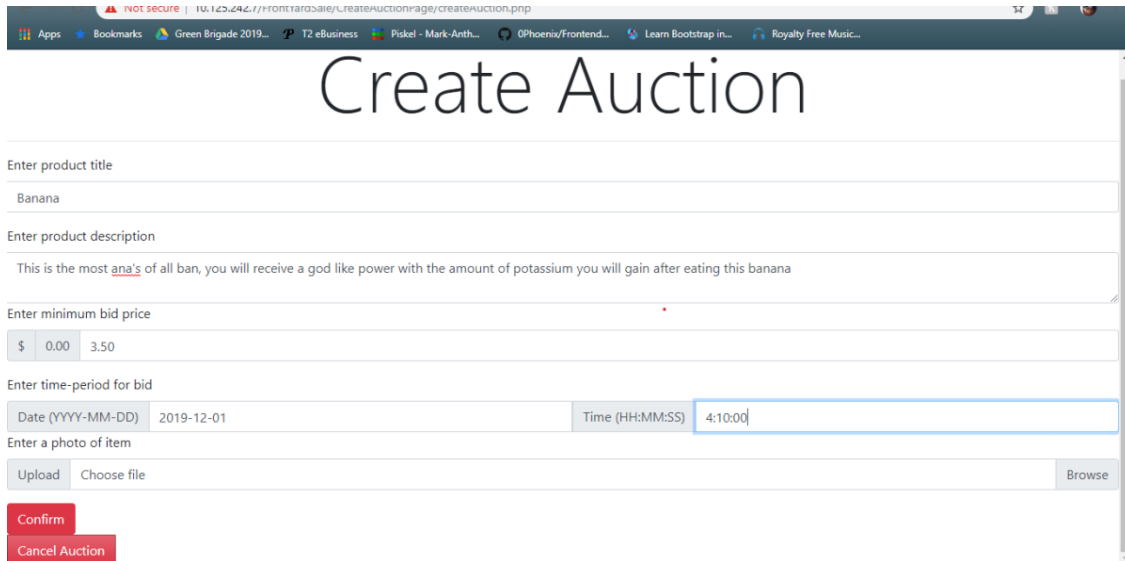
Logging in with wrong username/password:
This is what the screen will look like after user inputs an incorrect username/password. Users will receive an error message and are able to reinput the information to login.

Login Page | Files | + ∨

10.125.242.7/FrontYardSale/LoginPage/login.php

To see favorites here, select ☆ then ☆, and drag to the Favorites Bar folder. Or import from another browser. Import favorites

Front Yard Sale

Login
Username: [   ]
Password: [   ]
Confirm

Incorrect Username or Password:
Back to Homepage

Type here to search   44%   4:24 PM 12/1/2019
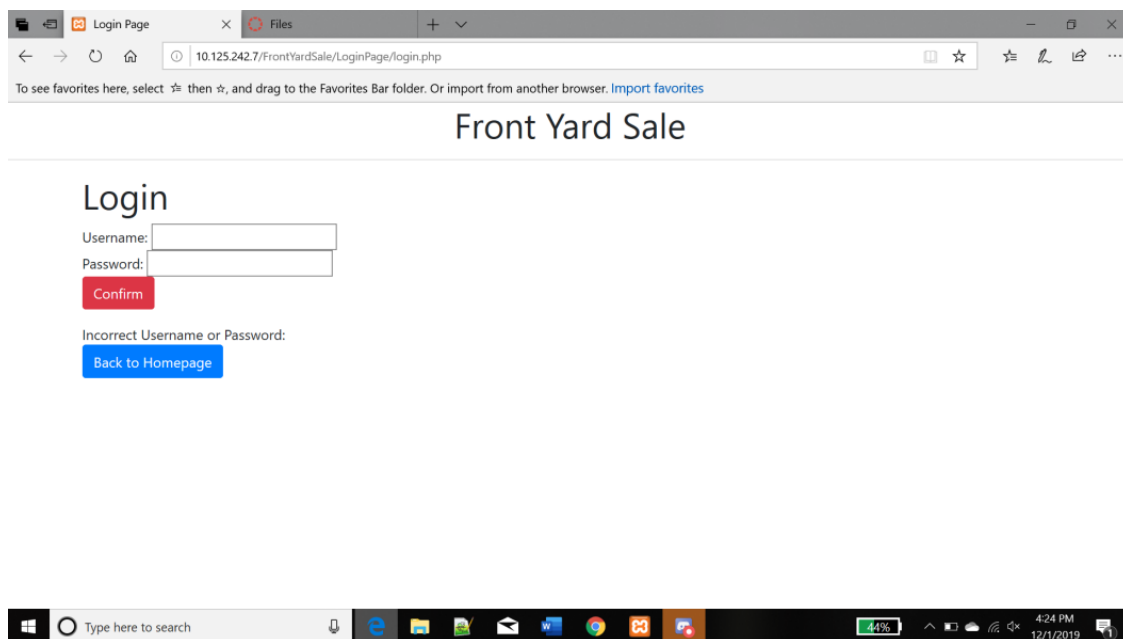
Create Auction:

When users select the create auction button on the home screen after login, users are prompted with the following requirements. Users have the ability to confirm and publish the item or cancel the item all together.

Bid for item:

When users select an item they want to bid, this is the screen they will see. User is prompted with a single input; how much they are willing to bid for that selected item in dollars. Users are able to confirm or cancel the bid.
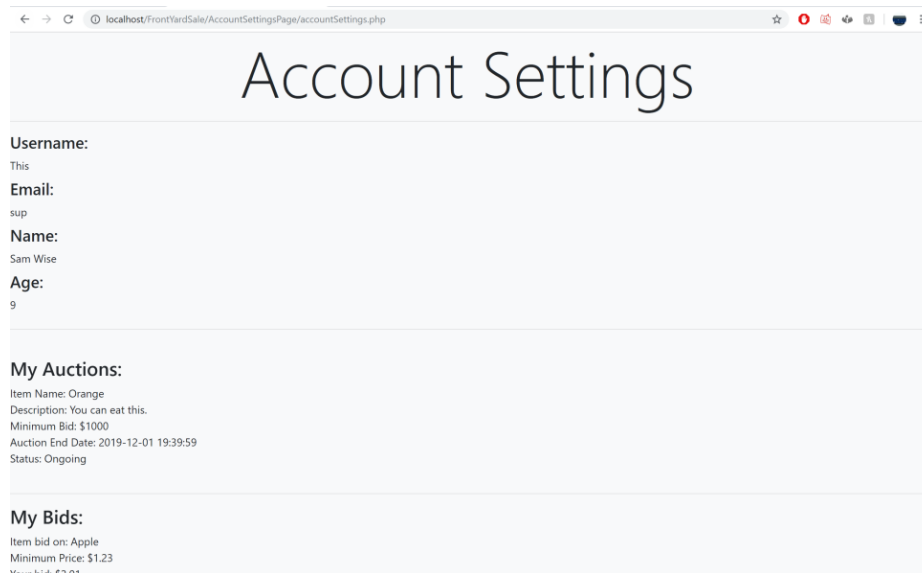
Account Settings:
Users are also able to see account settings from the home page after login. User can see the items they put up to bid as well as items they have id on. Users will also see the personal information they entered when creating their account.
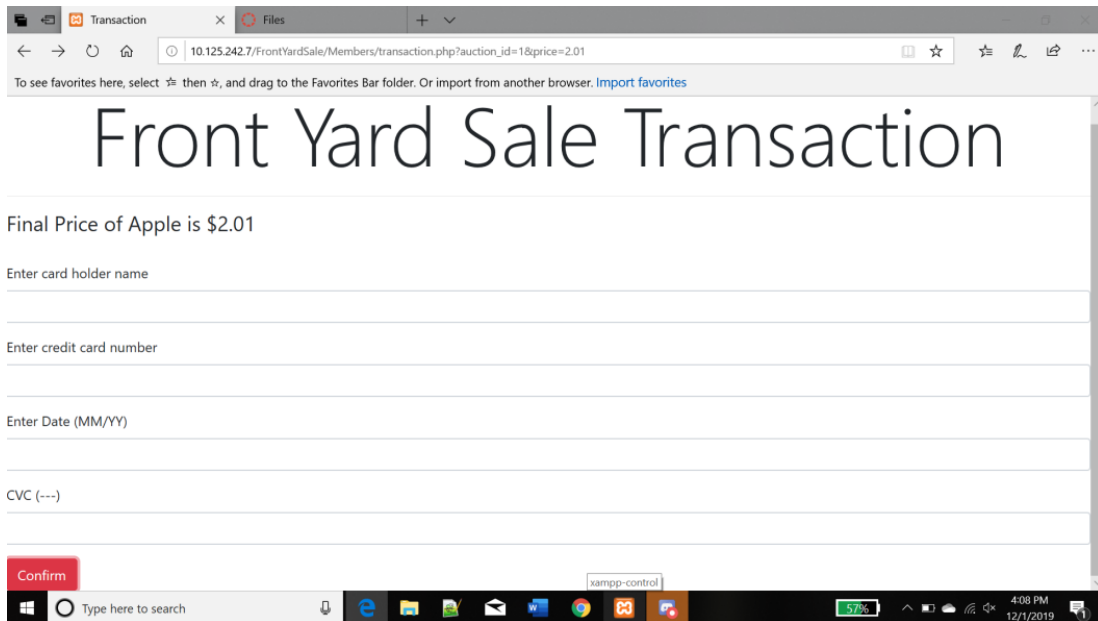

Claim Item:
When an auction's time period has expired, the user who has won the item sees this screen. Users are able to claim the item they bid on, directing them to the transaction page.
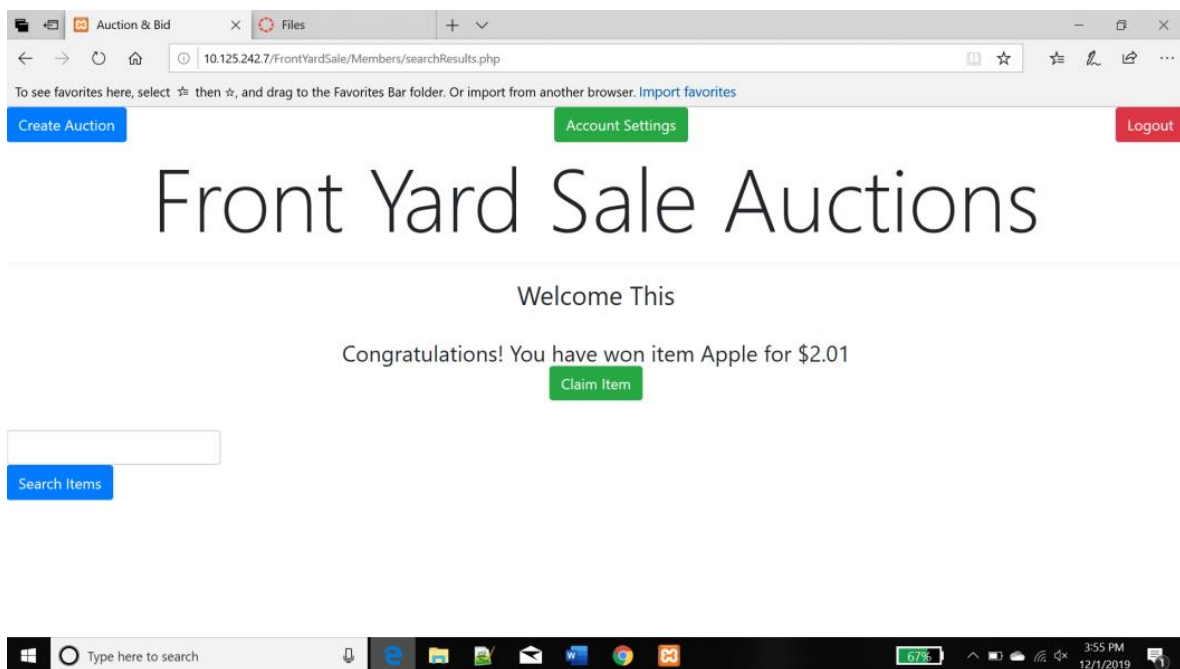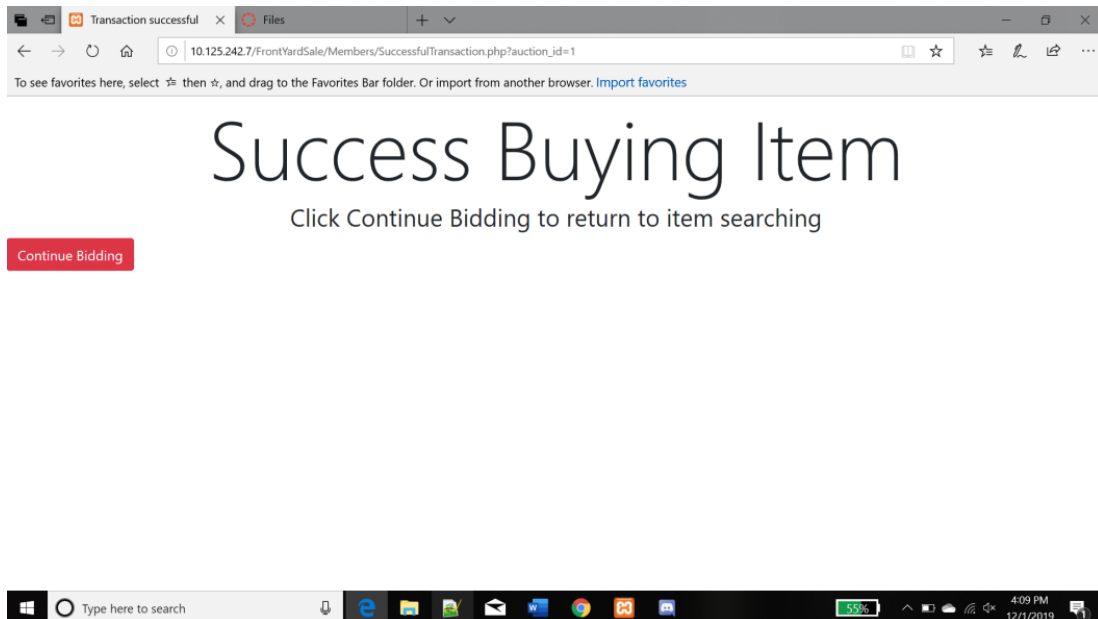
Transaction Page:
When an item is claimed by a user the transaction page is shown. This prompts users to enter their credit card information to purchase the item. This action is finalized by selecting the confirm button.

Success buying an item:
This screen is what is shown after confirming the transaction. This ends the auction fully and marks the status of the item as completed in the database, keeping a record of all auctions.

4. Testing

Test ID	Related components /functions	Pre-conditions	Test input	Expected Outcome	Actual Outcome	Pass/ Fail
1	Create Account	Intended account does not exist	Firstname: Thomas Lastname: Truong Username: Phoenix Email: good@this.com Age: 22 Gender: Other Password: Password Anon: no	User is directed to the searching page with their username on screen and user in database	User is directed to the searching page with their username on screen and user in database	Pass
2	Create Auction	Intended item does not exist	Product name: Apple Description: Edible fruit for organic consumption Min Bid: 1.23 Date: 2019-12-01 Time: 15:54:00	Successful auction page and auction is in the database	Successful auction page and auction is in the database	Pass
3	Searching item	Item was already auctioned	"Apple"	Information about the apple	Information about the apple	Pass
4	Searching item	Item was already auctioned by same user	"Apple"	Nothing	Nothing	Pass
5	Bid item	Item is in auction and is ongoing	2	Success page for bidding on item	Success page for bidding on item	Pass
6	Account Settings Auctions	User has auctioned an item(s)	Click account settings	User information plus the "apple" that was auctioned	User information plus the "apple" that was auctioned	Pass
7	Account Settings Bids	User has bid for an auction	Click account settings	User information plus the bid on "apple" for 2 dollars	User information plus the bid on "apple" for 2 dollars	Pass
8	Auction winner	User has the highest bid	Click to go to homepage	Congratulations notification with	Congratulations notification with	Pass

				"apple", the item won	"apple", the item won	
		and the auction ends				
9	Transaction page	User won the auction and is claiming item	Nothing	Error. Need card information	Successful bid page	Fail
10	Searching item with auction ended	Auctioned item time has expired	Click search bar	Item shows saying "this auction has ended"	Item shows saying "this auction has ended"	Pass
11	Account Setting no bids	Auction ends with no bidders	Click account settings	User's auction says "Nobody bid for your auction ☹"	User's auction says "Nobody bid for your auction ☹"	Pass
12	Transaction Page	User won the auction and is claiming item	Holder: Thomas CC number: 1234-5678-9012-1234 Date: 09/21 CVC: 000	Successful bid page	Successful bid page	Pass
13	Bid item	User is bidding for auction under minimum bid	Min = 1000 Input = .50	Cannot bid under minimum bid	Cannot bid under minimum bid	Pass
14	Login	User is attempting to log into an account that doesn't exist	Username: bob Password: alice	Incorrect Username or password	Incorrect Username or password	Pass
15	Login	User is attempting to login in on their account with incorrect password	Username: This Password: Vegtable	Incorrect Username or password	Incorrect Username or password	Pass
16	Login	User is attempting to login with wrong capitalization	Username: this	Incorrect Username or password	Homepage logged on	Fail
17	Create Account	User created auction with a negative number min bid	-4	Must have a positive min bid	Homepage success auction creation	Fail

18	Create Account	User enter negative age	First: Harpy Last: Sisters User: Go Email: MalValetine Age: -23 Gender: Femalde Password: FromYuGiOh Anon: No	Must have a positive number age	Successful account creation	Fail
19	Bid item	User bids for an auction that they already bid on	1001	Error saying, "you already bid for this item"	Error saying, "you already bid for this item"	Pass
20	Searching item	User searches for item while not logged on	"apple"	Must login before searching	Nothing	Fail
21	Searching item	User enters url for search page without logging in	"IP"/FrontYardSale/Members/searchResults.php	Takes user to login page	Takes user to login page	Pass
22	Login	User logs on account that is already logged in on different machine	User: Mark-Anthony Password: BadBoi	Successful login	Successful login	Pass
23	Bid item	Two machine bidding on same item on same account with different prices	First input: 4100 Second input: 4000.999	4100 bid goes through database and second bid fails because user already bid	4100 bid goes through database and second bid fails because user already bid	Pass
24	Bid item	User bids for item and wants to cancel	Clicks on "cancel bid"	Homepage shows	Homepage shows	Pass
25	Bid item	User enters letters for auction	"monopoly"	Error, need number input	Success bidding for item	Fail

5. Risk management

Risk ID	Description of Risk	Probability	Impact	Exposure	Classification	Mitigation Strategy	Status
1	lack of technical knowledge/experience of group members	high	high	high	technical	Find resources that will help everyone learn what to do	Mitigated
2	project requirements change midway through project	high	high	high	technical	If things do change, make sure it's communicated to everyone so that the path the project is taking can be altered immediately.	Mitigated
3	End users cannot intuitively use final project	medium	high	high	quality	Have a non-group member/ non-computer science major test the system.	Mitigated
4	GUI fails	medium	high	high	technical	Extensive testing	Mitigated
5	Final project doesn't work on multiple computers	medium	high	high	technical	Investigate alternative methods to access localhost database such as ethernet connection	Mitigated

6. References

R. Gnatyk, "Microservices vs Monolith: which architecture is the best choice for your business?," N-iX, 03-Oct-2018. [Online]. Available: https://www.n-ix.com/microservices-vs-monolith-which-architecture-best-choice-your-business/. [Accessed: 26-Oct-2019].