**Final Report**

**for**

**BiFrost Games**

**By**

**Curtis Naples**

**Devan Weber**

**Evan Plant**

**Pat Horler**

Contents

[1. Project Specifications 3](#_Toc513211136)

[1.1 Function Requirements 3](#_Toc513211137)

[1.2 Non-Function Requirements 3](#_Toc513211138)

[1.3 Group Roles 3](#_Toc513211139)

[2. Usability Guide 3](#_Toc513211140)

[3. Problems and Challenges 3](#_Toc513211141)

[4. Skill Learned 3](#_Toc513211142)

[5. Proposed Changes 3](#_Toc513211143)

[6. Code Snippets 3](#_Toc513211144)

**Table of Figures**

[Figure 1 - UML Use Case Diagram 3](#_Toc513207004)

[Figure 2 - Data Model Diagram 4](#_Toc513207005)

[Figure 3 - Cart 5](#_Toc513207006)

[Figure 4 - Login Screen 5](#_Toc513207007)

## Project Overview

We are creating a website that will be able to have video games posted and sold. A shopping cart will be implemented so customers can add multiple games to the cart and buy them in one transaction. The games will be able to be sorted by console and genre simultaneously. Customers must make an account to save their order history and be able to place orders.

## Project Specifications

### 2.1 Function Requirements

1. The customer must be able to browse items and select category filters.
2. An item must be able to be added to, edited, or removed from the shopping cart.
3. The customer can purchase the contents of the cart using a secure payment system.
4. The customer can have an account on the system.
5. The customer can view their purchase history.
6. The client can add products to the system.

### 2.2 Non-Function Requirements

1. The system will be built using apache web server
2. The front end will be coded using HTML, CSS and JavaScript
3. The middleware will be built with PHP
4. The database will be built using Oracle SQL
5. The system must provide a consistent look and feel across the user interface
6. The system will use free open source software
7. The system must be fully tested and running in 8 weeks

### 2.3 Group Roles

Curtis Naples Front-End Developer, Middle-ware Developer, Team Lead

Devan Weber Front-End Developer, Middle-ware Developer, Database/Back-end Developer

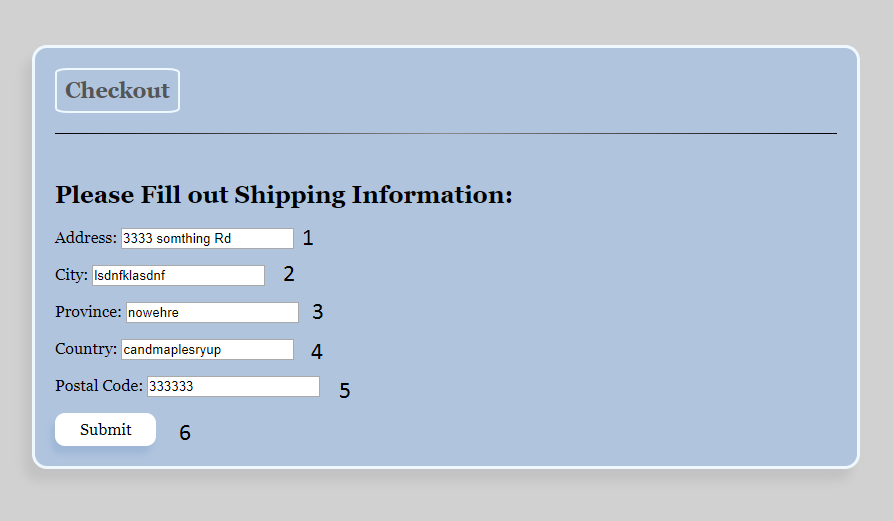
Evan Plant Database/Back-end Developer, Middle-ware Developer, Front-End Developer

Pat Horler Team Lead, Front-End Developer, Technical Writer

## Usability Guide

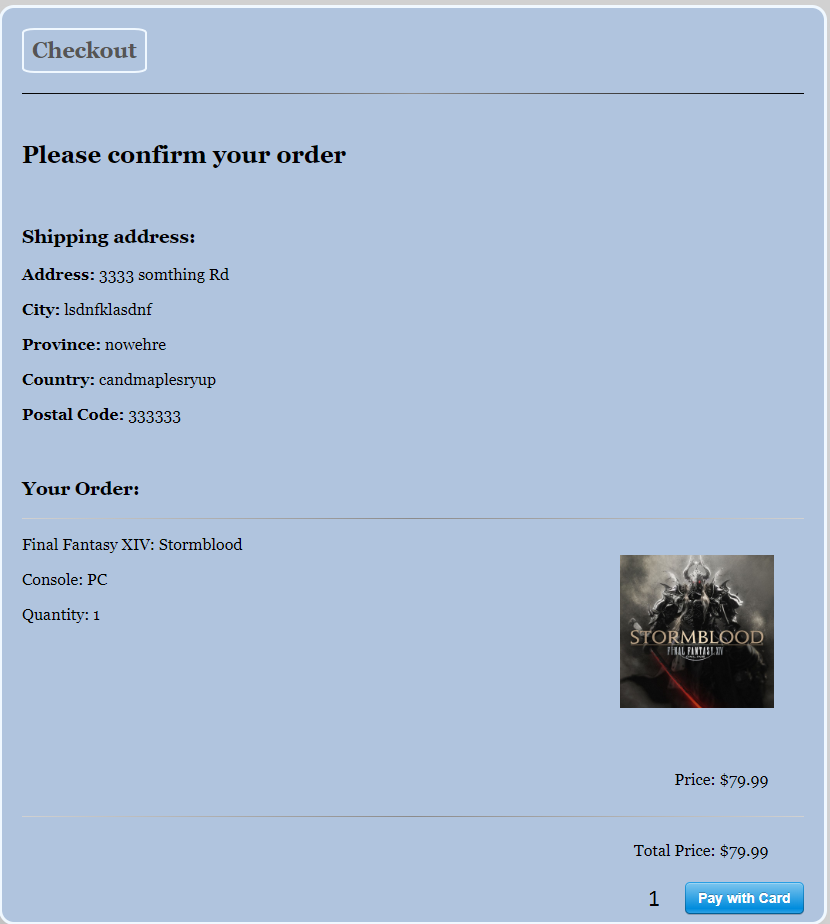
*< This should be in the form of a step-by-step guide that walks a user through the functionality of the website and include screenshots.>*

# Checkout



1. Textbox to enter your Address, which is required, and it will be checked to see if its valid
2. Textbox to enter your City, which is required
3. Textbox to enter your Province, which is required
4. Textbox to enter your Country, which is required
5. Textbox to enter your Postal Code, which is required
6. Submit button to enter your information and move to page 2 of checkout. When this button is pressed, if you never entered a address before, it will be saved to the database and next time you visit this page the textboxes will be filled automatically. If you have entered a address before and if any of the textboxes have different text than what is saved, the database will be updated.

# Checkout 2



1. When clicked, Stripe will open to start the payment process

# Checkout stripe

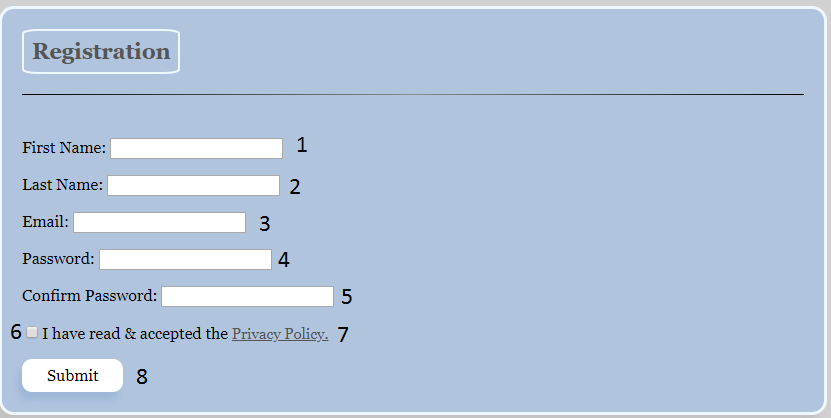
# Stripe Payment

1. Enter email for stripe receipt, this is required and will be validated
2. Enter your credit card number, this is required and will be validated
3. Enter the expiry for your credit card, this is required
4. Enter CVC, this is required
5. Check this to have stripe remember this information, you will have to sign up to do this though
6. Confirm and pay the amount listed.

# Checkout 3



# Registration



1. Textbox to enter your first name, this is required
2. Textbox to enter your last name, this is required
3. Textbox to enter your email, this is required and will be validated
4. Textbox to enter your password, this is required
5. Textbox to confirm your password, this is required
6. Checkbox to confirm that you have accepted the Privacy Policy, this is required
7. Privacy Policy link, if clicked will open the Privacy Policy for you to read
8. Submit button, all fields will be validated when this is pressed and if everything is good, your information and account will be saved into the database and you will be redirected and automatically logged in. If anything is missing or validation fails, the page will alert you to what is needed.

## Problems and Challenges

*< Problems and challenges you faced as a group during the project. This should include a description of each problem and how you overcame it>*

Problem - changing the quantity without reloading the page

Solution - learned how to use ajax to change quantity with a server sided script. Explained in code snippets

Problem – Git conflicts when pushing your work

Solutions – Ensuring that the most recent version of master was pulled and rebased in branch before work begins

Problem – Git problems with temp files made by Microsoft when file is open

Solutions – Close all windows before pushing to git

Problem: Adopting change requests into "completed" code.

Solution: Re-think the code logic to effectively accommodate new and existing functionality.

## Skill Learned

*<What your team learned (include both technical and soft skills)>*

* Learned how to use ajax with jQuery to run server sided scripts
* Learned how to use git properly and how to coordinate the team using it
* Planning and time management
* Re-using code to make tasks easier
* How to work on code together with another teammate.
* How to organize project tasks with MS Project.
* How to design code to be more modular (i.e. using header/footer.php files).
* How to integrate external code (i.e. Stripe).
* How to use php to create dynamic web pages.
* How to use php to interact with a database.

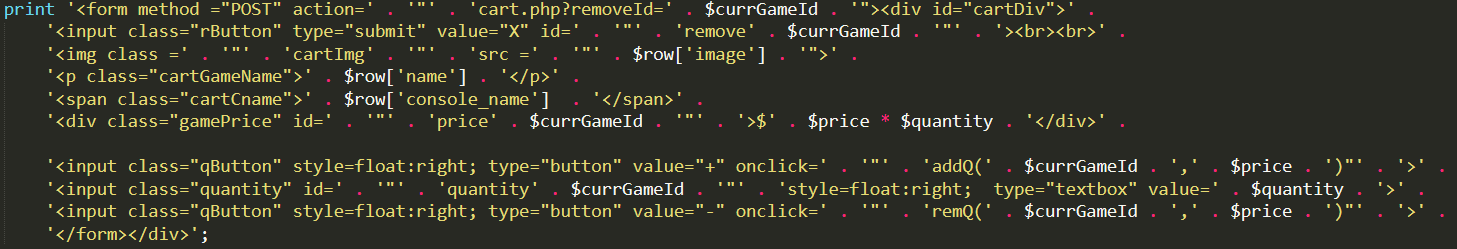
## Proposed Changes

*<What your team would do differently next time>*

* Plan out the design/pages needed more carefully.
* Next time I would make cleaner code from the beginning and put comments explaining what the code does as I do it rather than later.

## Code Snippets

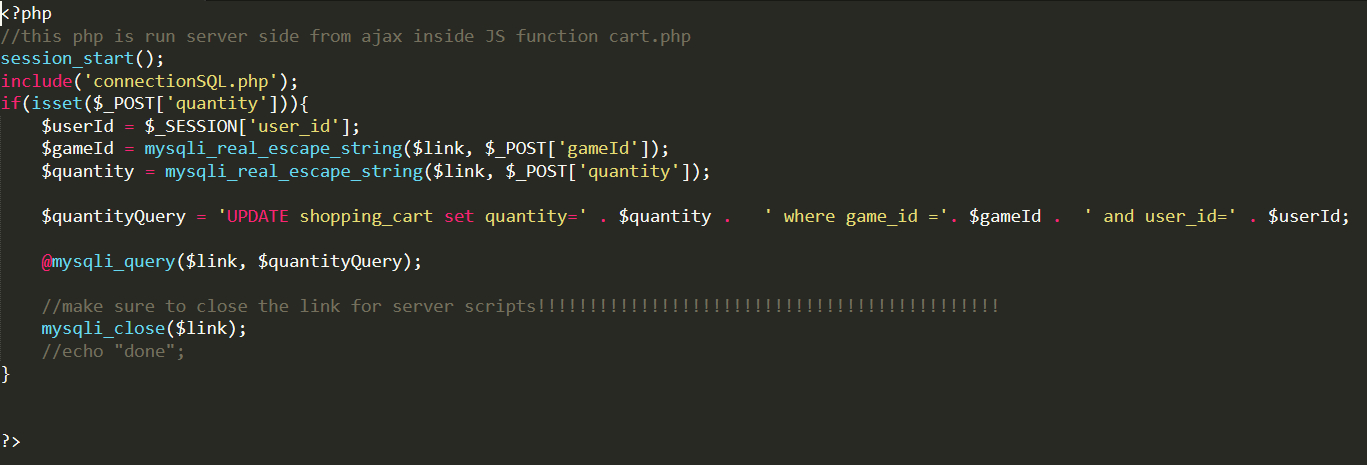
Using ajax for quantity



Using dynamic naming for fields that need to be change made it easy to keep track of what was being changed or altered on the cart page. Input buttons for quantity call to a JavaScript function as seen below. It passes the game Id and price to the function.



This function gets the quantity from the form associated with the passed game ID. Then it increments the quantity and adjusts the prices that are displayed to the user using the game base price that was passed. Finally, an ajax function is called that runs a server sided script to update the database.

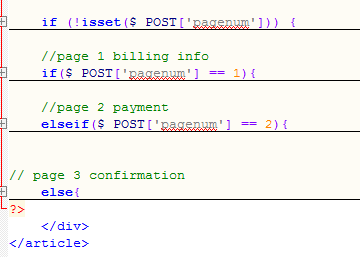


This is the server sided script that is called by the ajax function. This is updating the quantity dynamically in the database.

Login Redirect

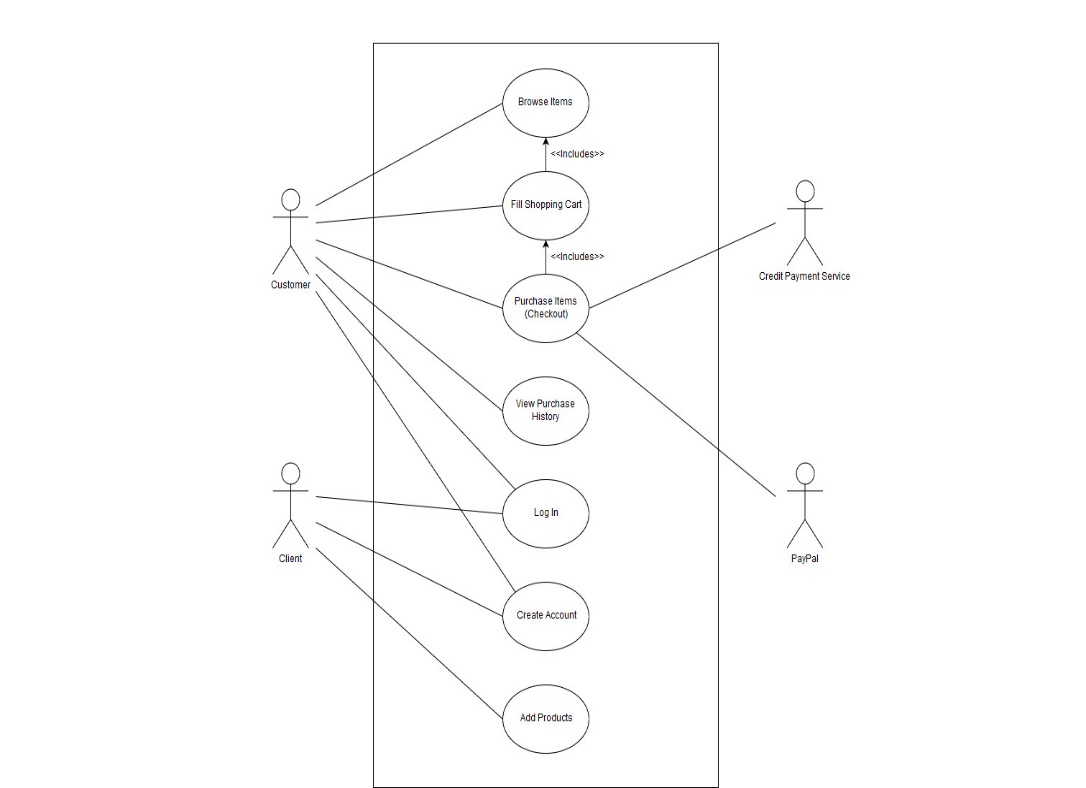


Checkout structure

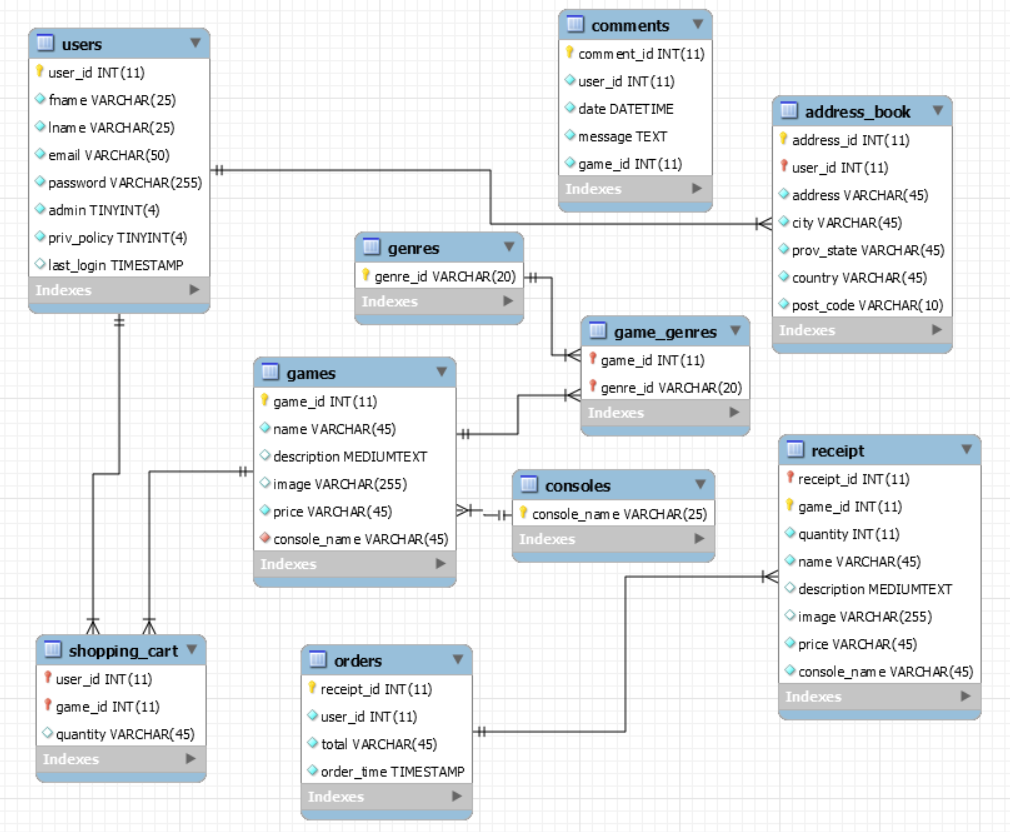


Im proud of this code because the checkout is actually only 1 “page” but it acts like 3! Using pagenum which is set to 1 at first, the if statement checks to see what number it is, since it starts at 1 it will display the first page. When you click submit on the first page, pagenum becomes set to 2 and the page refreshes, the if statement then goes to the elseif checking to see if pagenum is 2 which it is, it then displays page 2. After you pay with stripe pagenum is set to 3 which means the else statement at the end comes into effect showing the confirmation page.

## Figures

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**Figure 1 - UML Use Case Diagram**



**Figure 2 – Data Model Diagram**



**Figure 3 – Login page**



**Figure 4 – Cart page**