# Creating a Sample Website using HTML, CSS, AND JavaScript

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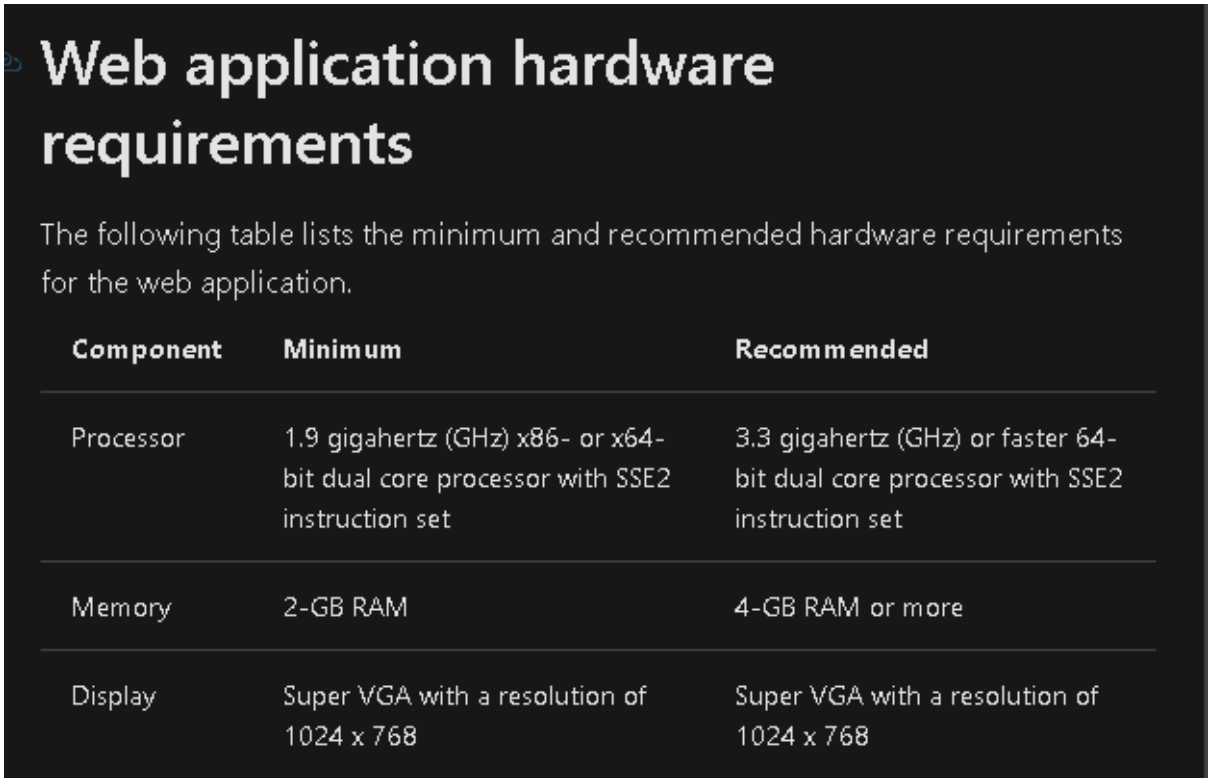
GitHub Link: https://github.com/faustastamulis/PPIT-Project.git

## Introduction:

Me and Garreth have decided to make a website for the PPIT project. This website is a sample website for a client. This sample website will be an online store for games. We have focused a lot on making games and learning new languages and concepts that we have nearly forgotten how to make a website, so our objective is to make a website and give us a refresher in making websites. We have decided to challenge ourselves and create a responsive business-oriented website for selling games.

## System Requirements:



## Web application hardware requirements

The following table lists the minimum and recommended hardware requirements for the web application.

| Component | Minimum | Recommended |
|---|---|---|
| Processor | 1.9 gigahertz (GHz) x86- or x64-bit dual core processor with SSE2 instruction set | 3.3 gigahertz (GHz) or faster 64-bit dual core processor with SSE2 instruction set |
| Memory | 2-GB RAM | 4-GB RAM or more |
| Display | Super VGA with a resolution of 1024 x 768 | Super VGA with a resolution of 1024 x 768 |

## Technologies Used and Why?

Developing this website, we used Visual Studio Code we were able to choose from different applications to develop from because all you need for web application is a text editor. The two most common one's people use is Visual Studio Code and Notepad++. Notepad++ is a basic technology that's for beginners while Visual Studio Code is a lot practical because it has IntelliSense which is very useful when developing because it acts as a code completion trick. It also has tutorials and a built-in developer console for errors which means you don't need to find an online compiler.

## Design Methodology Applied

The design approach we took was making it, so it appeals to the user and is very simple and easy to use. We tried to use colours that is representing the product it is displaying for example the games. We tried to find images that looked the best for the website and matched the overall colour scheme. We tried to edit the images to fit an overall aesthetic. Using high quality images also improved the way the website looked and made it look professional. We tried to make a brand for this website because it is quite important to have

branding in retail. People tend to pay a lot more for branding. For example, take cars people tend to pay a bigger premium for luxury brands compared to something that is just as reliable. Usability was very important for us because its all about the user experience the simpler you can make the journey for the user the more likely they are to recommend to other people and come back in the future. We tried to maintain a nice layout of everything and space things out so it would look very professional because we want the user experience to be very good. Every website has an inspiration since Me and Garreth have an inspiration of games we decided to base this website about games.

## Features and Implementations

- Home Page

- Checkout Basket

- Contact Information Banner

- Search

-Alerts

-Images

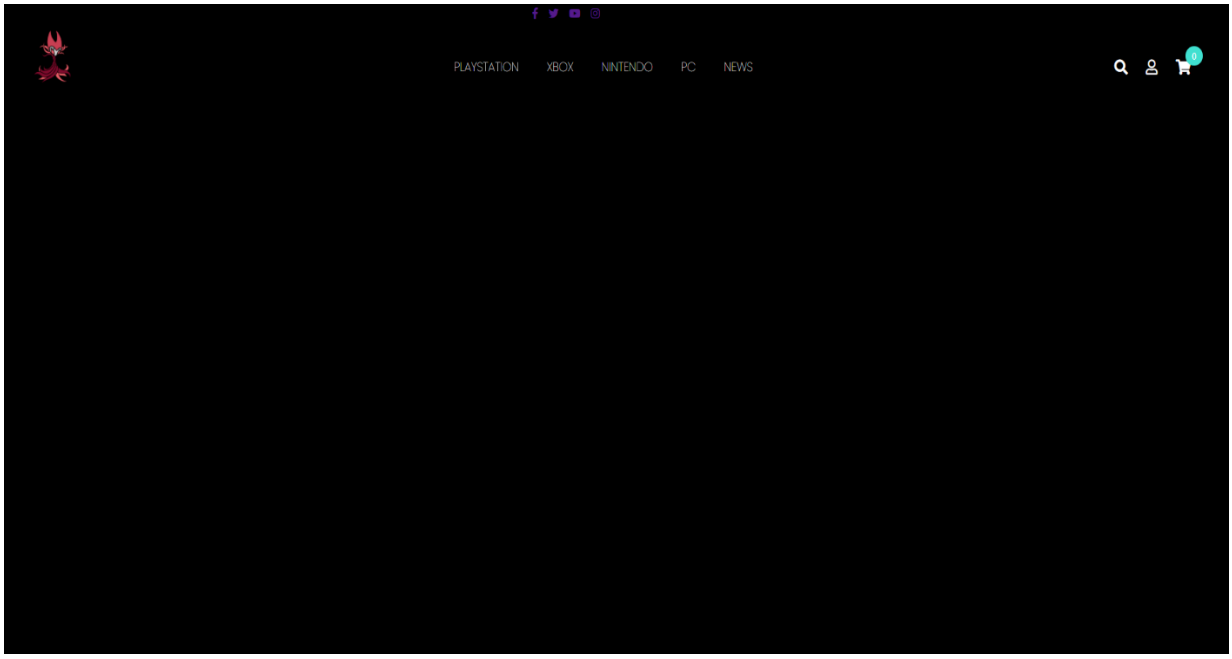
-Buttons

-Nav Bar

-Social Handles

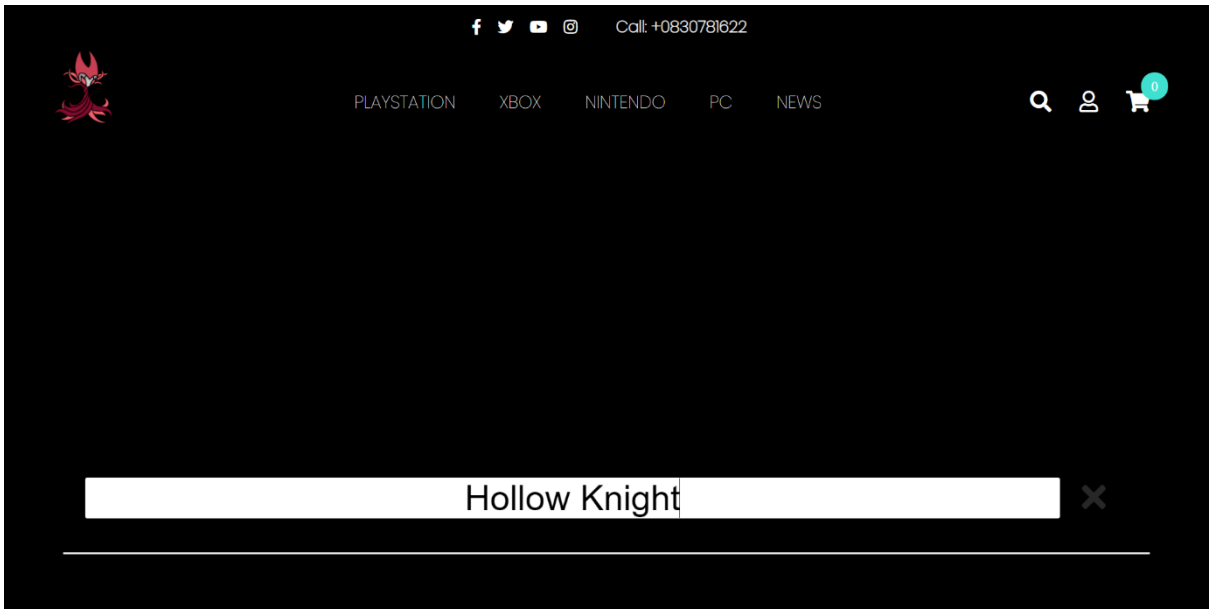
-Log in/Sign up

## Architecture and Development Cycle

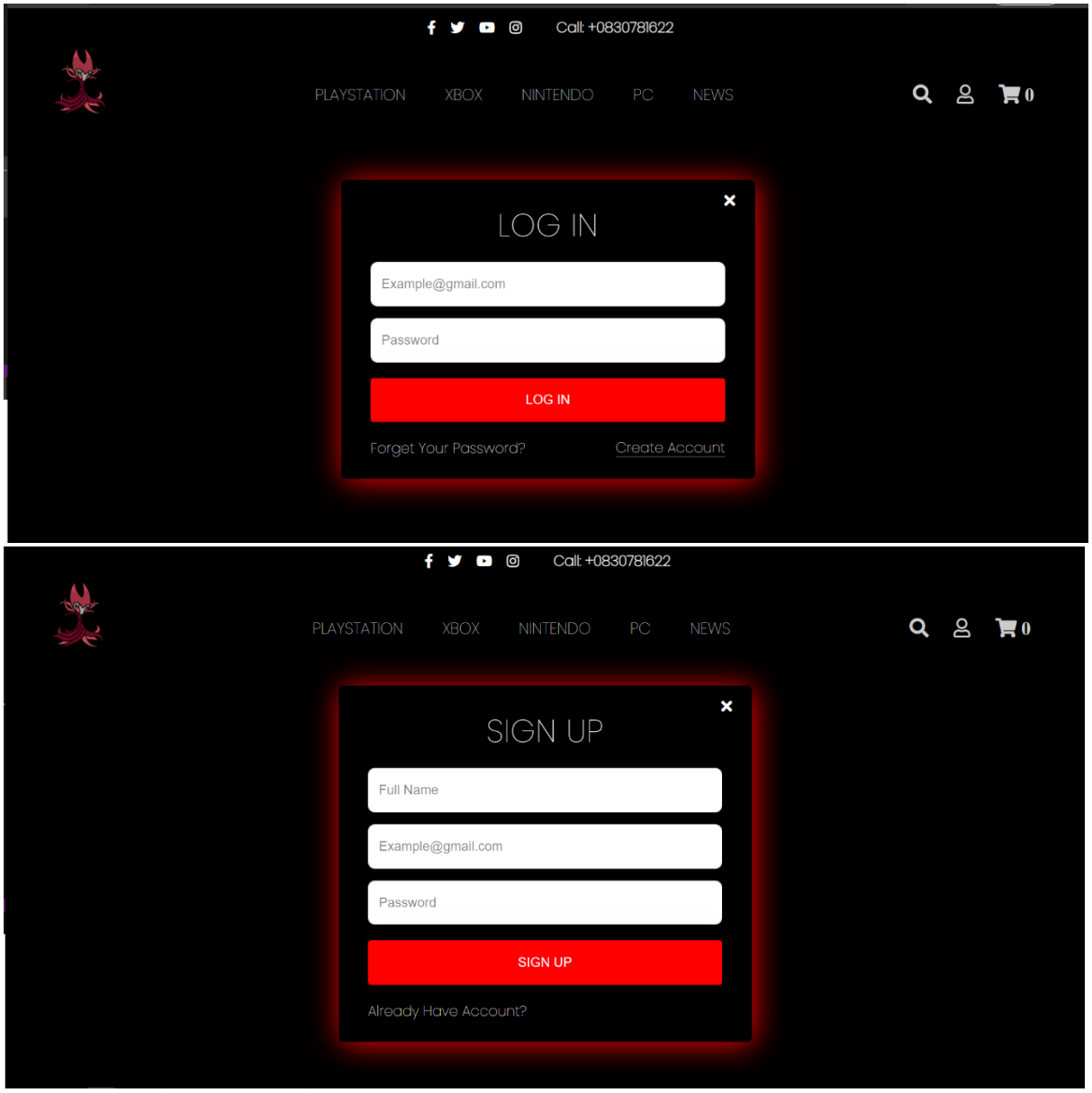



We started off with the home page we aimed to have a black theme for the games because we thought it looked unique compared to all the other white websites. As you can see the home page started off with a logo in the top left.

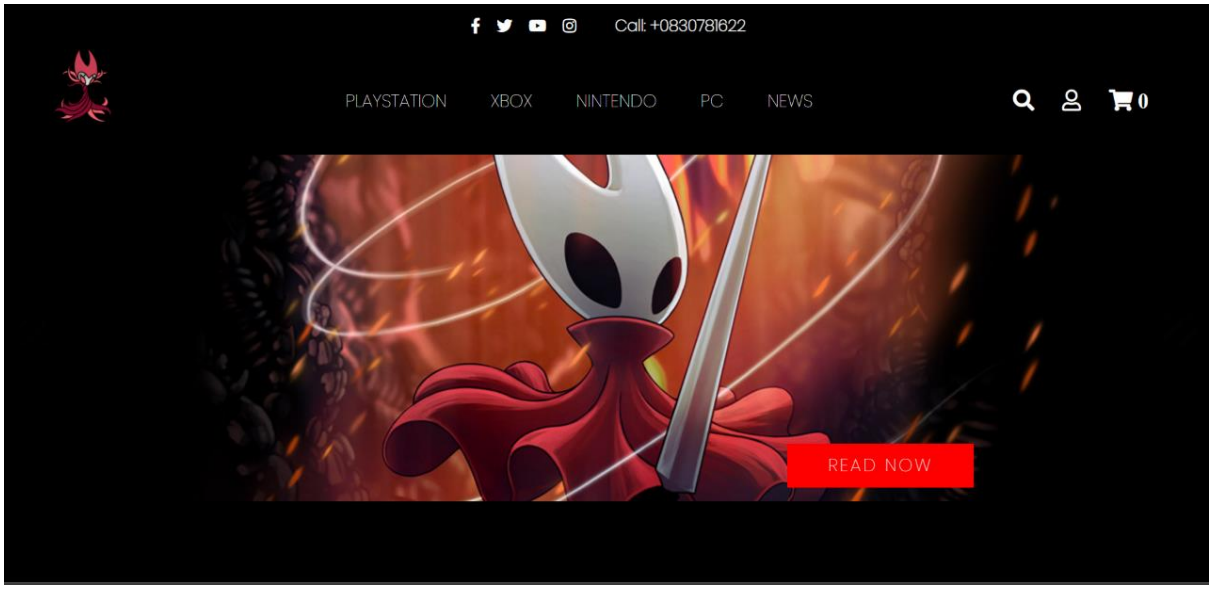
The different links in the nav bar to PlayStation, Xbox, Nintendo and PC games with a news tab. We also have some neat search, log in and cart icons in the right. All of this was inside our navigation bar.



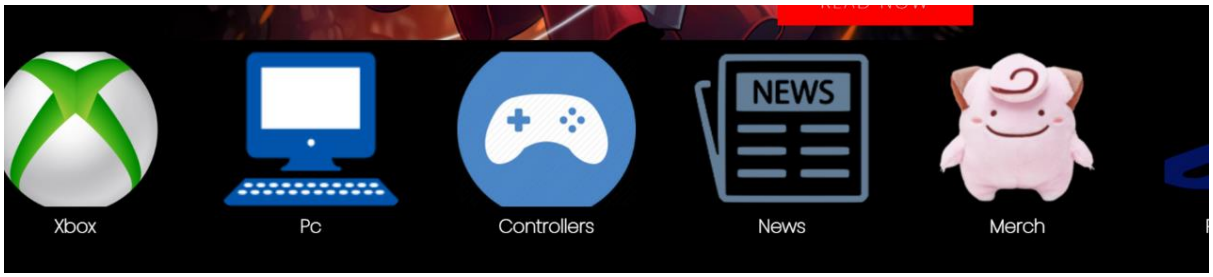

In this part we have added functionality for searching the website by clicking the magnifying glass icon in the top right it displays a pop up at the bottom which allows the user to search the website and x button to cancel the search.




In this screenshot we can see that we have added the functionality of signing up and logging in as you can see we are trying to follow a theme of black red and white with the website and make it unique. Logging in consists of email and password and signing up has the function of full name with email and password.




We have added an automatic slider with a manual functionality with multiple recent games.




And a slider below it that is manual current developing to make it more responsive and fixed. There is a bug with the zoom where it doesn't function properly when zoomed out.

Reference the screencast for an up to date look of the website.

## Testing the Website


We ran multiple test cases on the website to see if it was robust and usable. We performed different testing strategies such as compatibility, usability functionality and security.

## Functionality

### Test Cases:

Home Page, Buttons, Images, Alerts, Nav Bar, Log in, Search

Buttons -> Testing the buttons on the website was all successful, we tested it for one button and just reused the code for the rest of the buttons.

Images-> Testing the images were quite easy if they showed up it was successful for a few images didn't show up but we changed the directory and it fixed the bug.

Alerts-> We ran jQuery on the alerts and we have done this in a lab before so we reused the code for running alerts. These tests were successful.

Nav Bar-> We ran tests on the nav bar making sure the buttons and all the options worked these were successful.

Log In/Sign Up-> Works properly but doesn't save to a database.

## Compatibility

We ran compatibility tests to see if this website works on different operating systems. We ran this website on a virtual machine with linux installed and the website operated perfectly. We done the same we asked one of our friends to test it on macOS and it is also compatible on apples operating system so this proved that this website is compatible with multiple operating systems.

### Usability

The usability was very important we wanted this website to be very user-friendly so we tested the usability by asking fellow friends and other students to test the usability and the majority response said it was quite user-friendly. We took the feedback we got from the tests we done and changed the website accordingly.

## Agile Approach to Project Development

We used the agile methodology to make the project experience a bit easier. The whole concept of this is to split up the work into sections and distribute the workload evenly. We had weekly meetings set up by our supervisor Daniel Cregg. We used this time to discuss different approaches in the groups and talk about ideas. We would participate in calls for developing and doing the project. We would discuss ideas and what tasks we had to do.

This approach is meant to help with team morale and improve collaboration. We tried asking people from different groups for tips on what they found worked well and tried to incorporate them into our group. We incorporated the principle of using sprints where we would discuss what we have completed and what are we going to work on in the future.

We found using this approach helped us a lot because it gave us structure of the things we need to get done. We planned it out executed it and completed it.

## Future Development

The future development of this website would be upgrades that improve the overall user experience. For example, some parts that would be developed extending the catalogue of games. There is a never-ending catalogue of games because new games come out all the time. Being able to extend the catalogue and reach a wider audience of gamers would be of great benefit. Another advancement could be after various tests you can improve the responsiveness and robustness of the website for example you can discover bugs and fix them. Improve the other features of the website like the looks and design of the website. Constantly make the website easier to use. Improve the images used in the website. Ask the users on feedback about the website and develop towards their needs. The better you make the website for the user the more successful it will become.

## Conclusions:

Web Design is quite simple to do because of the wide range of resources now available to us. There are tutorials on how to do about anything online it just takes some time to master these techniques. We learned that making mistakes is how we learned the best because we sat down and questioned ourselves why it doesn't work. Tried to find solutions and its one of the best ways to learn web design. The more mistakes you make the more you learn. We learned how to use the different technologies to help us design these websites. As software developers know we tend to make mistakes coding so there are tools in place now to make the coding experience a bit easier. We also learned that having a good structure is very important made sure to know what we were always doing because we didn't want to mess things up.