



Informatics Institute of Technology Department of Computing

Bsc(Hons) Artificial Intelligence and Data Science

Module: CM1605 Web Technology

Module Coordinator: Ms. Janani Harischandra

Group Coursework Report

Group D

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1. Introduction

Topic - Movie Recommendation Website

The topic we chose was a Movie Recommendation Website, because at this time, online entertainment is the only escape people have and it seems practical to make a movie recommendation site than other sites according to our opinion. The name we selected was MovieMe, which was a sample name at first glance but later on it became permanent due to the fact that it fit in extremely well along with the logo we developed. Our goal was to include features into the site so that the user does not have a hard time navigating through the website. It is a truly simple website with easy to use functions.

<u>Members</u>

- 1. Sandun De Silva 2016276 Student Role 2
- 2. Akarshani Ramanayake- 2016691 Student Role 3
- 3. Imandi Karunaratne 2016278 Student Role 1

 Student 4 wasn't completed because we had only 3 individuals in our team.

The features of the website will be stressed below in the Technical Discussions....

2. Research on existing systems

Some of the systems that already exist are,

Netflix, HBO Max, Hulu, Crackle, Amazon Prime Video, etc...

Before starting our coursework, we visited many existing websites in order to come up with an idea for the UI and all the functionalities used in the website

In detail, the first website that came into our minds was Netflix, because it conveniently had the same functions as our website, therefore we got some inspiration from there. Below I have given short descriptions of each existing System;

Netflix: The company's main business is a subscriptionbased video service that allows users to watch movies and TV shows online, including those made within their company. Netflix has been a major player in the production of in-house films.

HBO Max - HBO Max is an American subscription video on demand streaming service which was founded by AT&T via Time warner Direct franchise of WarnerMedia.

Those two are the main types of streaming services. Some Screenshots of the UI's of all the existing systems that we gathered for research are attached below.

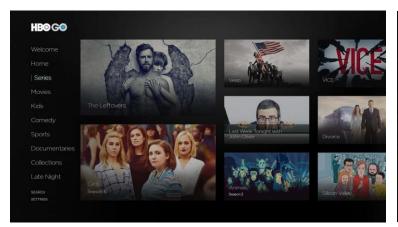


Below given is the main landing page of Netflix along with some other pages.



We got our inspiration from all of these webpages, and we pulled off an amazing website with a combination of all these sites.....

HBO GO





HULU





Crackle

(Next page)



Features Of Existing Movie Websites.

We will only note down the most prominent websites with their features.

Netflix:

Netflix subscribers can watch an infinite selection of movies, documentaries, and television shows from a vast library.

Customers do not have to wait for DVDs to come in the mail or for complete downloads before viewing because the material is streamed over the internet.

Netflix Customers get exclusive access to Netflix Original content.

HBO Max:

Anywhere you are, you can watch all HBO channels live.

Service is accessible at any time, from any place, and on any smartphone.

Get uncut HBO Originals at the same time as the US, plus on-demand access to award-winning dramas and Hollywood blockbusters.

3. Technical Discussion

Imandi Karunaratne -Student 1

- The main tasks which were assigned to me were :
- -Creating a presentation page
- -Making the Sign up form
- -Making a Gallery Page
- -Logo and Editors Page Link (Student 1)
- -Making the Editors Page (Student 1)

• For the **presentation page** I went for a black and cyan theme so it goes along with the movie me theme which we have incooperated for this website.

- For the background of the presentation page I went for a cool movie theatre background . the reason I chose that is because I needed to make it feel like to the user who is viewing the website that he is going to watch a movie
- The presentation page was designed in such a way that after a 5 seconds timeout, the main page which has the movies will be displayed there on.
- I used the below java script in order to make that happen

- For the heading I used an external font family in order to get a an attractive heading to my title "WELCOME TO MovieME"
- The below external font family was used from given website URL:

```
# Presentation.css > % img

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| Presentation.css >
```

- I also used key frames and an animation to emphasis the text and provide a shadow
- The below code is how I implemented the text shadow and glowing effect:
- Css code for Text shadow to enhance the texts :

• Css code for glowing effect :

```
.name{color: <mark>#03e9f4</mark>;animation: glowing 2s infinite;}
```

• Presentation Page:



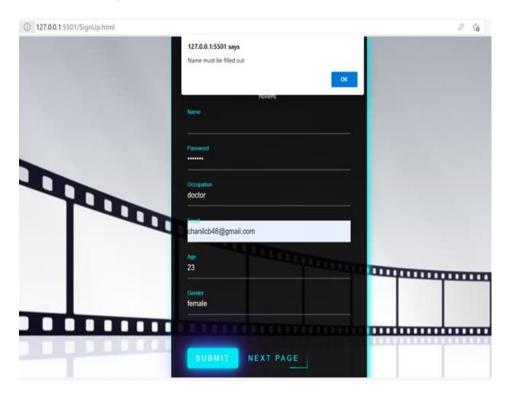
- For the sign up form I wanted to highlight the form well so I chose a very light background (white background with a movie strip). This background not only gives a more subtle look but also blends in well with the original theme due to the addition of the movie strip.
- For the sign up page I have included the 5 compulsory criteria and in addition to that I also have added a password as well
- And to make sure that the user enters a valid input I hve used java script to check in the user inputs for each criteria and to display an appropriate alert message that suits each invalid input

 For example if the user has not entered his or her name the below code will run and an alert message will be displayed.

Code for name validation

```
var x = document.getElementById("fname").value;
    if (x == "" || x == null) {
        alert("Name must be filled out");
        return false;
}
```

Alert Message if name has not been put:

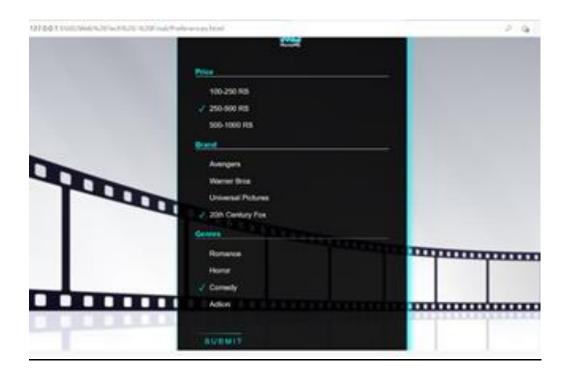


- Like the above same way I have implemented for each user criteria a validation using java script
- The below code shows the complete validation code which was done by using js:

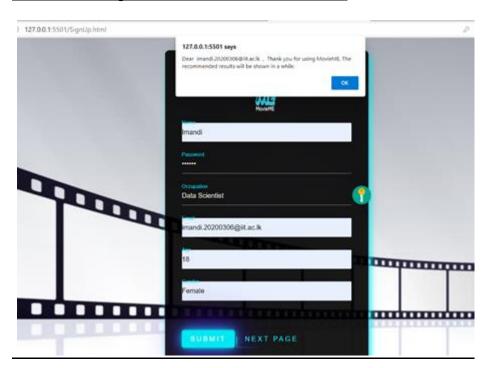
 If all the details are entered correctly by the user the below message will be displayed as shown below (ss):

Correct Inputs:

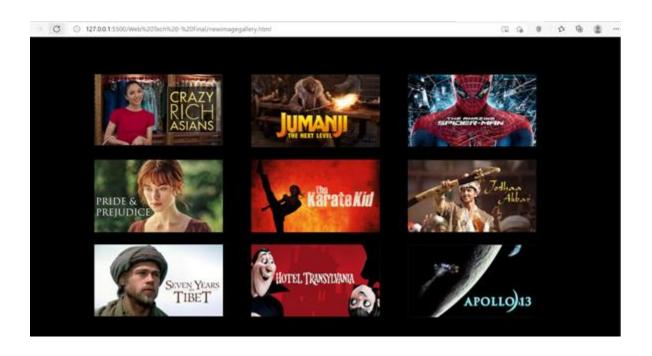




Alert Message code and ss on website:



- The gallery page, My Gallery comprises of three main things
 - 9 thumbnail images
 - An image slideshow
 - Separate area with a movie card and movie description .
- Initially I decided to only have 6 movie cards with their description but I found that it looked blank and it didn't have aanything to make it exciting to look at
- So I changed the overlook of the gallery page and added a separate area where there is 9 thumbnails as shown below:



 When the user moves the mouse cursor on top of an image it will slightly enlarge as shown below (look at the amazing spiderman thumbnail):



• I used the below code snippet for enlarging the image when the user hovers over the movie thumbnail:

```
.movie-card:hover{
    transform: scale(1.3);
    z-index: 2;
    cursor: pointer; //thumbnail hover
}
```

- I also added an image slideshow to make the gallery page look more exciting.
- The below code is how I implemented my image slideshow

 For the image slideshow the animation effect (zooming effect and fading) was made using the below code snippets:

Zoom effect code snippet:

```
@keyframes zoom{
    100%{
        transform: scale(1.3);
    }
}
```

Fading Effect code snippet:

 Next for each thumbnail image, I made a movie card and a description as shown below:



 Each movie image was taken from the internet and using an image tag I added each to the gallery page

```
<a href="<u>#scroll1</u>"><img src="<u>pics/webpic1.PNG</u>" alt="Crazy Rich Asians"></a>
```

- Also I added a hover effect on the text so that when the user hovers over the movie description it enlarges
- The hover effect on the movie description was implemented using below code snippet:

```
.movie-block:hover{
    transform: scale(1.3);
    z-index: 2;
    cursor: pointer;
}
    //movie description hover
```

 The below code is the html code for a few from the 9 movie cards with description which I implemented:

- Next on my tasks was for me to add the logo at each of my pages and the link to the editors page
- To add the link to my editors page I used the below code snippet:

```
</script>
    <a href="imandi.html">Click here to go to editors page //a>
</body>
```

 To add the logo in all the pages (Sign up form preferences part, gallery page) I used below code snippets:

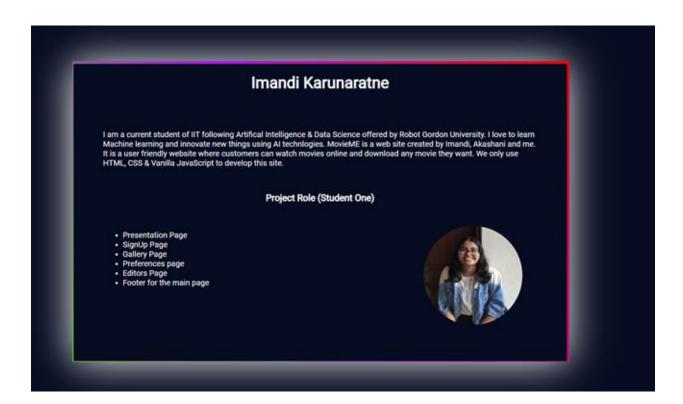
In sign up and preferences page:

```
k rel="icon" href="pics/My (4).png" type="image/png" >
```

In Gallery page:

```
limg class="logo-img" src="pics/logo.png" ALT="Me Movie" |
```

Finally I had to make my editor page. The editors
page has a small description about myself, my roles as
Student 1 and also a small image of myself.



Sandun De Silva - Student 2;

- The main task I was given was to develop the main webpage for the entire website, which was a quite challenging task due because I was in head of setting the theme for the entire website.
- To make sure that consistency is maintained, I
 had to stick to the same theme as the main page
 when it came to the other pages as well.

- The theme decided was black and blue. This automatically gave the website a dark mode, which is rather mandatory in 2020.
- To make the webpage easy to navigate I set the navigation panel to be at the top right corner like any simple website, this way the user won't be confused whatsoever. Here are some code snippets for the html and the styling css for the navbar;

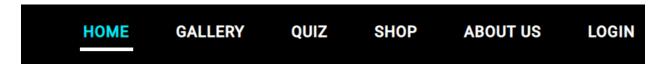
```
#navbar ul {
    display: inline-block;
    float: right;
    list-style: none;
    margin-top: 30px;
    text-align: right;
    margin-right: -180px;
    font-size: 20px;
    transition: transform 0.5s ease-out;
    -webkit-transition: transform 0.5s ease-out;
}

@media(max-width: 640px) {
    #navbar ul {
        display: none;
     }
}

@media(orientation: landscape) {
    #navbar ul {
        display: inline-block;
     }
}

#navbar li {
        display: inline-block;
}
```

Screenshots attached below....On hover animation is shown here as well



 I also managed to include our website logo along with navbar and added a onclick url for it to redirect to when clicked(Back to Main Page).
 Shown Below along with the code

```
<img class="logo-img"
src="pics/logo.png" ALT="Me Movie">
```

Picture Shown below



- After coming up with a certain navbar design what I had to tackle next was completing the mainpage. I had to make sure to keep the black and blue theme used in the navbar throughout the page.
- In the CW, it was mentioned to insert a video into the mainpage, therefore I went with a movie compilation (Avengers) As soon as the user enters the page, he/she is greeted with a trailer video (it will be the currently trending movie, I used a sample video here) I did not attach code snippets or screenshots of this functionality because it is quite simple and easy to understand.
- I decided to add a search bar with some additional animations.

```
.search-box div:after {
  background: white;
  content: "";
  height: 20px;
  width: 4px;
  position: absolute;
  top: 40px;
  right: 2px;
  transform: rotate(135deg);}
```

Unlimited movies, TV shows and more. Ready to watch?. Search...

- The display after the search bar opens....
- Next for the trending movies and the new arrivals, I managed to use a simple, minimalistic flip and zoom in animation where, when the user

hovers over the image, the image will flip over and a description of the movie will pop up.



This is the outer image along with the inner description, code below



Outer Image

Inner Description

```
.square {
  position: relative;
  width: 200px;
  perspective: 1000px;
  transition: all 0.5s ease-in-out
0.5s;
}*/continues in the next page/*
.square:hover {
  transform: scale(1.1);
  box-shadow: 1px 2px 10px 5px solid
black
}
```

Next I thought of having the quiz on the same page as the main page. I did not put it in a separate page because then the website will be easier to use with less categories. Part of the code is attached below along with the screenshot of the quiz. Because the entire code will take too much space, it wasn't attached.

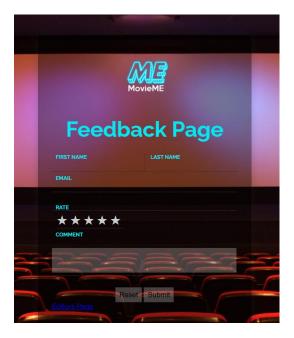


I decided to make a Graphical quiz instead of a prompt box quiz for additional marks.

Screenshot of the quiz.....

```
<pre
```

 Also implemented a preloader for each page, so that the user will not experience any lags or loading files or images. I linked it to every webpage using additional javascript. I also made a Contact Us form like stated in the



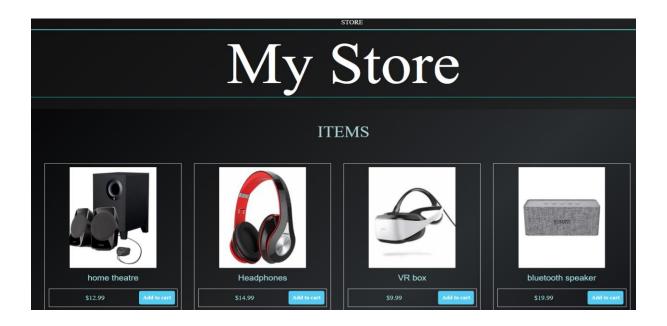
tasks. Screenshots shown below.

Akarshani Ramanayake - Student 3

- The main tasks that I received were to complete a functional product purchase page and to make a about us page to introduce our team within the website.
- Other than these two main tasks there were some additional tasks such as adding javascript to increase/decrease the font size of a page using a button. What seemed to be challenging

was making the Product Page. Because it had a lot of javascript in it.

- However with the help of the javascript lectures and some self-studying, I managed to complete the product page just in time for submission;
- Screenshot of my product page, along with some code snippets given here.



This is the html.

```
<
```

Javascript is given below

```
(document.readyState == 'loading') {
   document.addEventListener('DOMContentLoaded', ready)
   ready()
function ready() {
   var removeCartItemButtons = document.getElementsByClassName('btn-danger')
   for (var i = 0; i < removeCartItemButtons.length; i++) {</pre>
        var button = removeCartItemButtons[i]
       button.addEventListener('click', removeCartItem)
   var quantityInputs = document.getElementsByClassName('cart-quantity-input')
   for (var i = 0; i < quantityInputs.length; i++) {</pre>
       var input = quantityInputs[i]
        input.addEventListener('change', quantityChanged)
   var addToCartButtons = document.getElementsByClassName('store-item-button')
   for (var i = 0; i < addToCartButtons.length; i++) {</pre>
       var button = addToCartButtons[i]
        button.addEventListener('click', addToCartClicked)
   document.getElementsByClassName('btn-purchase')[0].addEventListener('click', purchaseClicked)
// remove items from the cart
function removeCartItem(event) {
   var buttonClicked = event.target
   buttonClicked.parentElement.parentElement.remove()
   updateCartTotal()
```

Javascript Code Attached Below

The store is fully functional, along with the use of a shopping cart and a list of the added items along with the total price of everything. I used javascript to implement these functions.

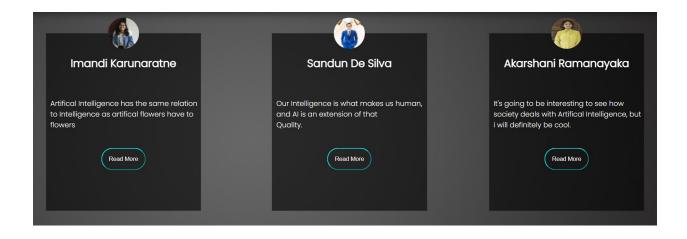
I used css and html only for the about us page, using some buttons and simple texts. I stored the individual user information in a separate page. (Editors pages) I included the links to access those pages as well.

I attached the entire html code for the about us page. A small css section is attached along with a screenshot of the page as well.

```
margin: 0;
   padding: 0;
   color: ☐white;
   position: fixed;
   font-family: 'Poppins', sans-serif;
.box{
   background: ☐ rgba(0,0,0,0.6);
   width:350px;
   height:400px;
   position:absolute;
   margin-top: -350px;
   margin-left:250px;
   transform: translate(-50%,-50%)
.image img{
   height: 70px;
   width:70px;
   border-radius: 50px;
   position:absolute;
   left:50%;
   transform: translate(-50%, -50%)
   text-align: center;
   margin-top: 50px;
```

```
<head>
    <title>About Us</title>
    <link rel="stylesheet"</pre>
href="about.css">
    <link rel="icon" href="pics/My</pre>
(4).png" type="image/png" >
</head>
<body>
    <div class="backimage">
        <img src="pics/WhatsApp Image</pre>
2021-04-01 at 2.13.38 PM.jpeq">
    </div>
    <div class="box">
        <h2>Imandi Karunaratne</h2>
        <div class="image">
             <ima
src="pics/imandi kA.jpg">
             <br>
        </div>
        Artificial Intelligence has
the same relation to Intelligence as
```

```
artificial flowers have to
<br/><br>flowers<br>
href="imandi.html"><button>Read
More</button></a>
    </div>
    <div class="box2">
        <h2>Sandun De Silva</h2>
        <div class="image">
            <imq
src="pics/sandun.jpeg">
            <br>
        </div>
        Our Intelligence is what
makes us human, and AI is an extension
of that <br>Quality.<br>
href="sandun.html"><button>Read
More</button></a>
    </div>
    <div class="box3">
        <h2>Akarshani Ramanayaka</h2>
        <div class="image">
```

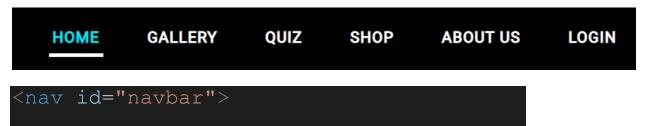


4. Discussion of UX/UI principles/Applications/Justifications

4.1 Navigation Techniques

- When it comes to navigation, clearly it is one of the most important parts of the website. Both design and functionality each are important when it comes to the Navbar.
- To make sure that the website would be easy to navigate, and to make sure the navigation is fluid and minimal, we used the following techniques;
- 1. Standard Horizontal Navigation Menu
- 2. Animated Navigation Menu
- The navbar we made was a simple horizontal menu, this is really easy to use and it is easily understandable for any new user. When the user hovers over any item, there is an animation that occurs below the text for the user to understand which field he is hovering over. In order to maintain consistency we used the same navbar in every page.

 Attached below are screenshots of the navbar and come code snippets.



```
<a
href="MainPage.html">Home</a> <!--
linking main page -->
```

 Sample code snippet of the nav tag opening and the first element of the menu.

4.2 Color balance/selection/consistency

• When developing our website we thought of following the latest trend in 2021. Which is using a dark theme... Almost 80% of websites depend on Polymorphism or Glass Morphism, we thought outside the box and decided to go with a dark theme along with a touch of blue neon color. For each page we went with this theme once again to maintain consistency. We also maintained a simple minimal design. Even the trailer video we used has a blue theme (Avengers theme color is blue). Even the logo that we designed has a blue theme along with a movie reel....



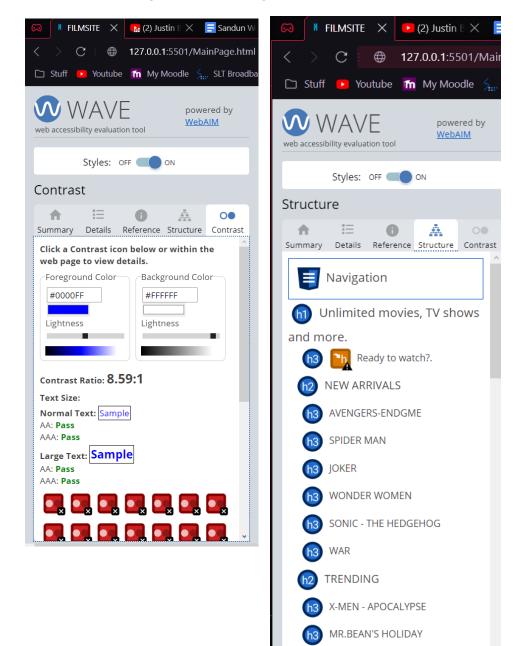
Some code snippets of the logo and the colour styling attached below

Custom Designed Logo. Along with the body background color

```
body {
  background: rgb(0, 0, 0);
```

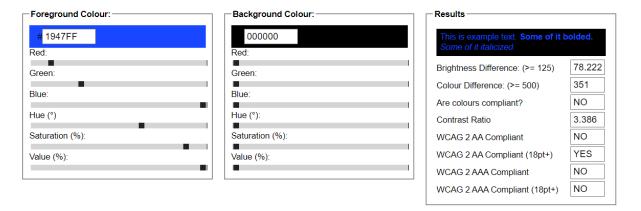
4.3 Color Contrast Test

 Without guessing whether the colours of our website are easily to look at and whether the accessibility level is high, we used some online tools to get the rating of the website.



Colour Contrast Check

Date created: January 11, 2005 Date last modified: January 11, 2015



4.4 Typography / consistency

 For the default font for all of our pages, we decided to use Roboto. The reason we went with an identical font type for all our web pages was to maintain consistency among all the webpages. Another reason we went with roboto was because it is a font that we import from Google Fonts, which is a library which is always up and almost never gives us bugs. Roboto is a very easy to read and attractive font type. Roboto is used among a vast number of websites in 2021. It has become extremely popular... We included the font family code below.

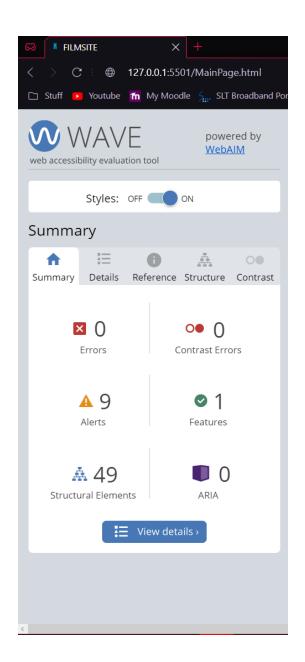
```
@import
url('https://fonts.googleapis.com/css2?
family=Roboto:wght@300;400&display=swap
');
font-family: 'Roboto', sans-serif;
```

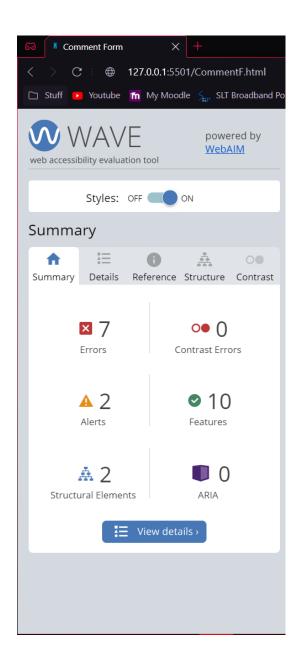
4.5 Accessibility

 Our webpage is accessible for any person, including; people with slow internet connections, people with impared hearing (each movie contains subtitles)

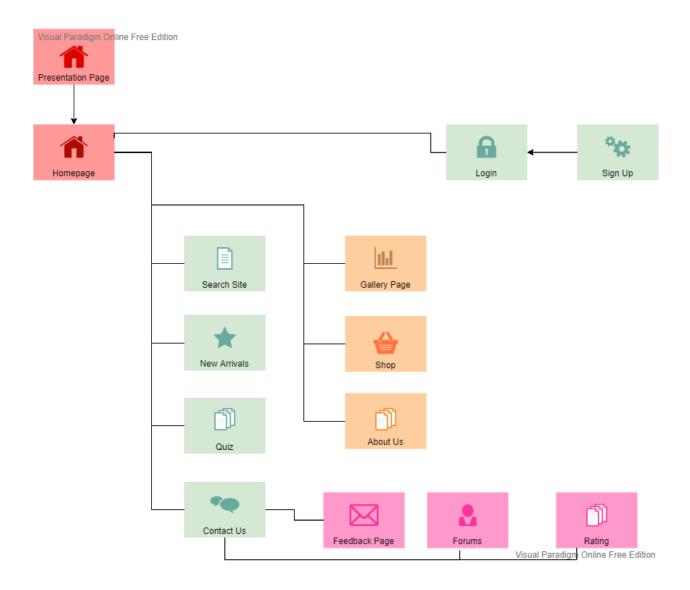
4.6 Accessibility Test

(Next Page)





4.7 Site Diagram



5. Self-Reflection

Imandi Karunaratne (Student 1)

I was requested by my team to do the tasks assigned to Student 1.

Student 1 Tasks were to construct the Sign Up Form and Preferences, The Presentation page ,the Gallery Page and finally to link all the tasks to the editors page.

Through this Coursework, I learnt to work efficiently with my team and meet all deadlines in a very timely manner.

I would like to add that the lecture slides which were offered by the module leader for the module was very helpful and I learned a lot .I additionally I also had to do some research on my own to further build up my knowledge so that I can fulfill the goals and objectives of my tasks to my fullest capability.

However, due to the current global pandemic ,communicating with my team was made online and was a obstacle for us because this was a group coursework and each member of our team was assigned a different task.

Due to this, assembling all our codes together to make the final website was quite challenging since all the codes have to be well linked with each other.

But with the help of online platforms such as Google Meets, WhatsApp Messaging and Zoom meetings we were able to communicate via online and be able to work together through these difficult times.

It would have given me immense happiness if my country would have been in a better place and hopefully if we could return back to normal, we can work on our next group coursework more smoothly and efficiently.

Sandun De Silva(Student 2)

When it came to our Web Technology Coursework. We had to face a lot of issues, however we pushed through our problems extremely well. Because we were given this Assignment right when campus closed, we did not meet the team daily.

Usually the group Assignment would be done by arranging many physical meetups and study sessions but due to the current situation in the country, we did not have many physical meetups, we maintained a github repository in order to make our workflow more productive. Our work was made more efficient using Google Meets. These two technologies played a huge role in our assignment.

But I have to admit that our website came to a level which none of us had in mind. It was on a whole new level. I had an excellent team, we maintained excellent communication and we had an amazing level of collaboration. At first sight, the tasks that I had received seemed very challenging. Developing a main page, contact form, quiz was kind of overwhelming... However after listening to lectures and self studying required areas, the task seemed easier.

I managed to go over and beyond and completed a Graphical Interface instead of a regular prompt box quiz. I also added Favicons to make the website more colourful and creative. I also implemented many Javascript functions to make our website a great success! We did not face any problems, only when it came to the designing part all three of us had three different views, but we implemented all our ideas and made an amazing website at the end of the day. We had countless sleepless nights to make this website a success. We learnt how to collaborate with a team and it gave us a sneak peak of working with other team members, which I think will be an advantage for our internship in the coming years. Overall it was a great experience and a good time, throughout this coursework.

Akarshani Ramanayake (Student 3)

Our webtech coursework was a very challenging task, but in my opinion it is very rewarding as well because it gave us a sneak peak of what working in a team of developers is like.

We came up with many contradicting ideas but, we learnt to compromise and come up with conclusions everyone agrees on. We made maximum use of some online communicating tools such as Google Meets, GitHub to maintain our codes in a well organized manner. The regular meetings and organized workload was the real reason for our success.

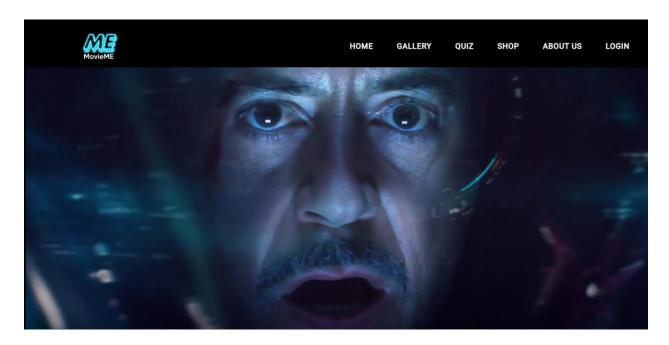
Sandun led the team in an extraordinary manner. He took all the weight and divided the tasks in an easy to follow manner. If it wasn't for my teammates this website would have never come up to such a level. We decided not to make UI Designs before starting to code because if we did, we would keep trying to duplicate the UI Design, and we would be stuck on several stages and time was not on our side....even though we started one week after the coursework was released. I managed to somehow pull off a successful product page with all the necessary javascript and a well crafted about us page with great styling as well.

6. References

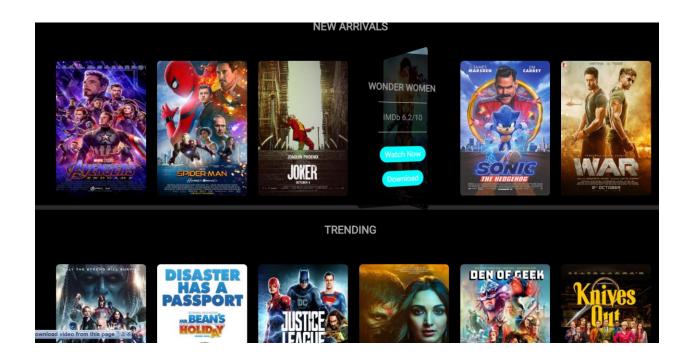
- Netflix and Dribble for Design Ideas
- Google fonts and font awesome icons for some pages.
- YouTube videos for Ideas
- Google pictures for gallery page and main page and product page.
- W3schools and stackoverfloor for syntax

Appendix: Screenshots

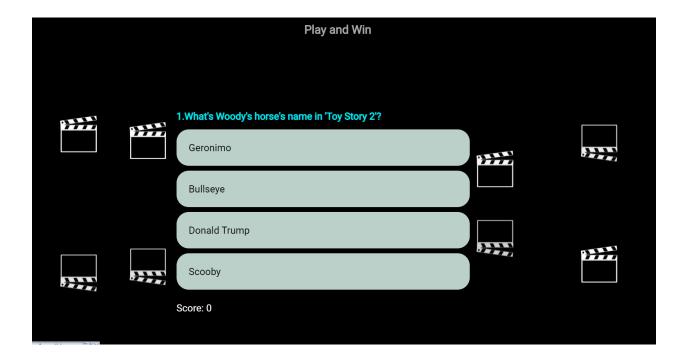
Main Page



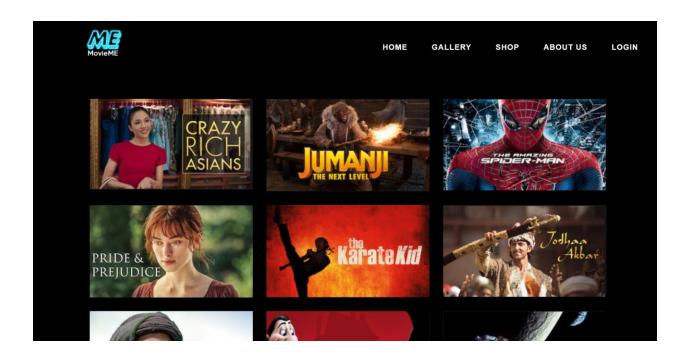
Main Page Cards



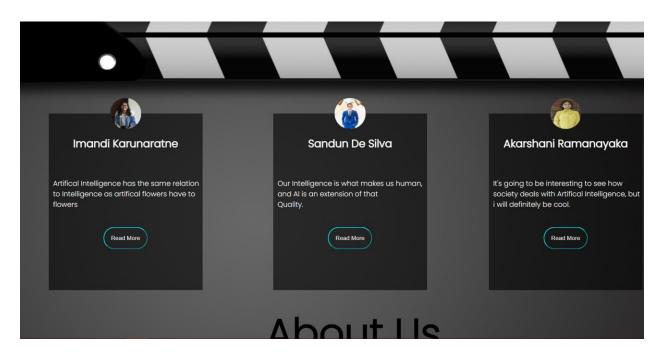
Quiz



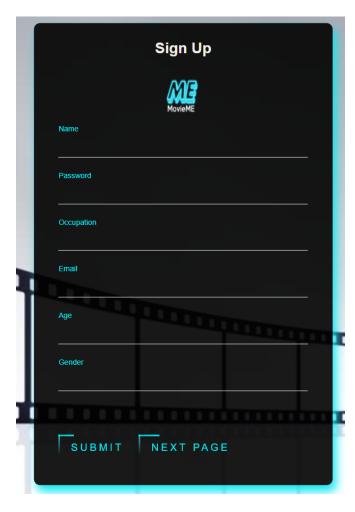
Gallery Page(Next Page)



About Us Page



Sign Up Page

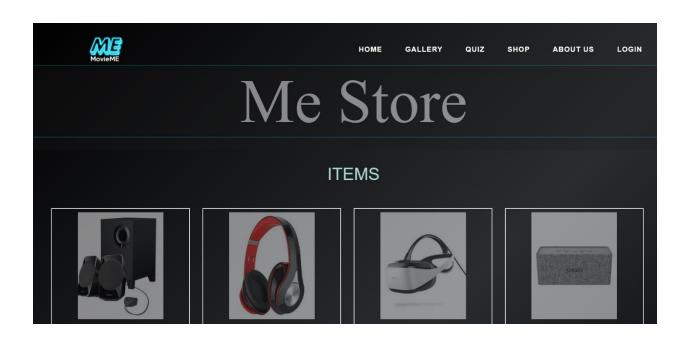


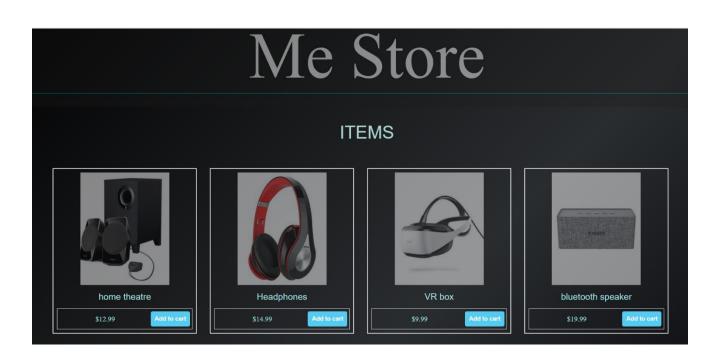
Editors Pages weren't included as the information is unique for each member.

Payment Form (Next Page....)

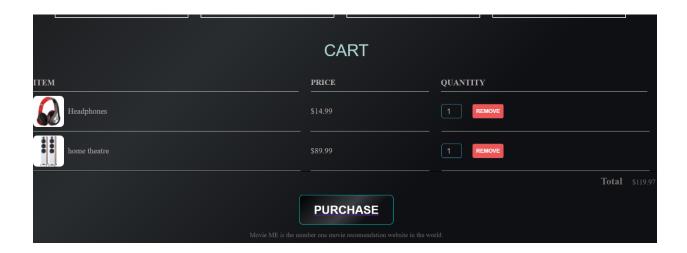
Payment Form			
Account			
Full Name		Nick Name	
Email Adress			
Date Of Birth		Gendar	
DD MM	YYYY	Male	Female
Payment Details			
Credit Card		Paypal	
Card Numbe			
Card CVC		01 jun ~	2020 ~
	PAY	NOW	

Store:

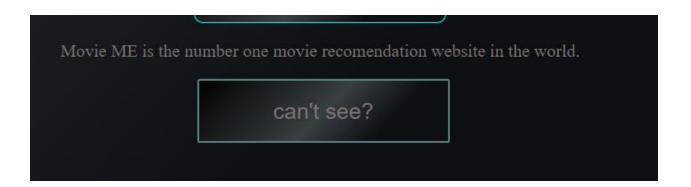


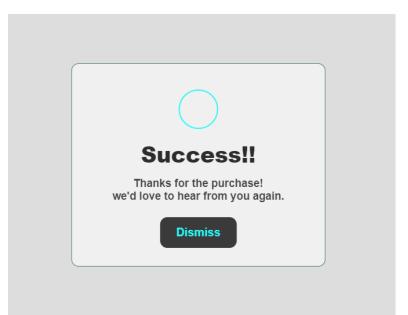


Cart:



Font size changing button:





Success pop up box

Offers:

