Informatics Institute of Technology
Department of Computing

Bsc (Hons) Artificial Intelligence and Data Science

Module: CM1605 Web Technology

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Group Coursework Report

Tutorial Group: Group B

Coursework Group: Group 6

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CONTENTS

01.INTRODUCTION

1. Runisi Nikoya Samaranayake – 2237028 – Student Number 1
2. Esandu Obadaaracchchi – 2237041 – Student Number 2
3. Lakidu Haputhanthri – 2237037 – Student Number 3
4. Hammaad Rizwan – 2237928 – Student Number 4

02. RESEARCH ON EXISTING SYSTEMS

- MyFitnessPal - MyFitnessPal is a free app that allows users to track their calorie intake, exercise, and weight loss progress. It has a vast database of foods, which allows users to easily log their food intake and get a more accurate estimate of their calorie intake. It also integrates with several fitness tracking devices and apps, such as Fitbit and Apple Health. MyFitnessPal provides personalized recommendations for calorie intake and nutrient goals based on the user's weight, height, and activity level.

- Lose It - Lose It! is another free app that allows users to track their food intake, exercise, and weight loss progress. It also has a large database of foods and allows users to scan barcodes for quick and easy logging. The app also has a feature that connects users with a community of people who are also working towards their weight loss goals. Lose It! also provides personalized recommendations for calorie intake and nutrient goals based on the user's weight, height, and activity level.

03. TECHNICAL DISCUSSION

STUDENT 1 – RUNISI NIKOYA SAMARANAYAKE

PRESENTATION PAGE

HTML CODE

```html
<!DOCTYPE html>
<html>
<head>
    <title>Page Title</title>
    <link rel="stylesheet" type="text/css" href="presentation.css">

</head>
<body onload="startTimer()">
    <div class="background-image">

    </div>

    <script>
        function startTimer() {
            setTimeout(function() {
                window.location.href = "trial1.html";
            }, 5000); // 5000 milliseconds = 5 seconds
        }

    </script>
</body>
</html>
```

Student 1's role is to make the Presentation Page, Sign-Up page and the presentation Page

First is the Presentation page This is a basic HTML web page that has a background image and a timer that redirects the user to another web page after five seconds.

In the body section, the "onload" event is used to trigger the "startTimer()" function when the web page finishes loading. The "startTimer()" function uses the JavaScript "setTimeout" method to delay the redirection of the user to another web page. In this case, after five seconds, the user will be redirected to the Main web page.

SIGN-UP FORM

JAVASCRIPT CODE

```
<script>
        // get form elements
        const signupForm = document.getElementById("signup-form");
        const subpage1Form = document.getElementById("subpage1-form");

        // get form buttons
        const nextBtn1 = document.querySelector("#signup-form button[type='submit']");
        const nextBtn2 = document.querySelector("#subpage1-form button[type='submit']");

        // get form pages
        const page1 = document.getElementById("signup-form");
        const page2 = document.getElementById("subpage1");

        // listen for form submissions
        signupForm.addEventListener("submit", (e) => {
        // prevent form from submitting
        e.preventDefault();

        // validate form fields
        const name = signupForm.elements["name"].value;

        const fname = name.split(" ")[0];
        const lname = name.split(" ")[1];
        const date = signupForm.elements["date"].value;
        const gender = signupForm.elements["gender"].value;
        const email = signupForm.elements["email"].value;

        if (fname === "" || lname===""|| date === "" || gender === "" || email === "") {
            alert("Please fill out all required fields");
            return;
        }

        const nameRegex = /^[A-Za-z]+$/;
        if (!nameRegex.test(fname) || !nameRegex.test(lname)) {
            alert("Name should contain only letters");
            return;
        }
        if (name.split(" ").length>2||name.split(" ").length<2){
            alert("Enter the full name(first name and last name)");
            return;
        }


        if (fname === "" || lname===""|| date === "" || gender === "" || email === "") {
```

```
            alert("Please fill out all required fields");
            return;
        }

        // show subpage 1
        page1.style.display = "none";
        page2.style.display = "block";
    });

    subpage1Form.addEventListener("submit", (e) => {
    // prevent form from submitting
    e.preventDefault();

    // validate form fields
    const physicalActivity = subpage1Form.elements["physical-activity"].value;
    const foodIntake = subpage1Form.elements["food-intake"].value;
    const workoutTime = subpage1Form.elements["workout-time"].value;
    const meals = subpage1Form.elements["meals"].value;

    if (physicalActivity === "" || foodIntake === "" || workoutTime === "" || meals
=== "") {

            alert("Please fill out all required fields");
            return;
        }

        // submit form data
        alert("Dear "+ signupForm.elements["name"].value.split(" ")[0]+" thank you for
using Fitzen, The results will be shown in a while!");
    });

    </script>
```

The sign-Up form creates a two-page form using HTML and CSS, with the first page asking for the user's basic information and the second page asking for information about their health habits. JavaScript is used to switch between the two pages and listen for form submissions. The code gets form elements and buttons by their IDs and includes basic CSS styles for page formatting.

EXPLANTION OF THE JAVASCRIPT CODE

This code implements a two-page form that collects user fitness and health information using JavaScript to handle form submissions, validate user input, and display error messages. The code includes event listeners that wait for form submissions, with a conditional display that shows the next page of the form only if the previous page has been successfully submitted. The code obtains references to various HTML elements using getElementById() and querySelector() methods. Event listeners are added to the forms to wait for submissions, with the first page event listener

hiding and showing the second page. preventDefault() is used to prevent default form submission behavior, and validation is performed on both forms. If validation passes, an alert message is displayed thanking the user for using the form, and the data is submitted.

GALLERY PAGE

```html
<script>
    // Get all the thumbnail images
    const thumbnails = document.querySelectorAll('.thumbnail');

    // Get the main image and image description elements
    const mainImage = document.getElementById('main-image');
    const imageDescription = document.getElementById('image-description');

    // Set up an event listener for each thumbnail
    thumbnails.forEach(thumbnail => {
        thumbnail.addEventListener('click', () => {
            // Remove the selected class from all thumbnails
            thumbnails.forEach(t => t.classList.remove('selected'));

            // Add the selected class to the clicked thumbnail
            thumbnail.classList.add('selected');

            // Set the main image source and alt text to the clicked thumbnail's attributes
            mainImage.src = thumbnail.src;
            mainImage.alt = thumbnail.alt;

            // Set the image description to the clicked thumbnail's alt text
            imageDescription.textContent = thumbnail.alt;
        });
    });
</script>
```

EXPLANATION

This is a webpage displaying a gallery of healthy food images. The gallery is interactive and allows the user to click on a thumbnail image to display a larger version of the image and a description. The webpage contains a header with a logo and navigation buttons and contains five images of healthy food each with a brief description. The webpage uses HTML, CSS, and JavaScript to create the layout, style, and functionality of the webpage. The CSS file is linked to the HTML file to apply styles to the webpage, including font styles, color schemes, and layout styles.

EXPLANTION OF THE JAVASCRIPT CODE

This JavaScript code selects thumbnail images on a web page and stores them in a variable called "thumbnails". It also selects the main image and image description and stores them in "mainImage" and "imageDescription" variables. The code sets up an event listener for each thumbnail. When clicked, the thumbnail's attributes are used to update the main image and image description elements. This functionality allows users to click on a thumbnail image and see a larger version of the image in the main image area of the webpage with a corresponding description shown below it.

STUDENT 2 - Esandu Obadaaracchchi

The student 2's role was to make the main page along with the feedback form and the quiz. For the entire website, the end goal was to make a minimalistic/simple website with a lot of white and black. The main page consists of all the buttons for the subpages, "Online-store","LeaderBoard","Healthy food Gallery","sign-up/login" in the navigation bar.

And editors page, about us page, feedback form in the footer, more on this in the navigation techniques section.

javaScript is used to make the scroll to top Button to make the user's travel around the page easy. Here is the code snippet for the javaScript part which gives the smooth the scrolling action.

```
<script>
    const scrollToTopButton = document.getElementById("scrollToTop-button");

    scrollToTopButton.addEventListener("click", (e)=> {

      window.scrollTo({
        top: 0,
        behavior: "smooth"
      });
    });
  </script>
```

When it came to the development of the feedback form and quiz page, first started off by identifying the key requirements for each task, which included creating a form to collect feedback and a rating from users and building a quiz page with multiple choice questions which displays a score along with a medal with a time limit to answer.

For the feedback form , HTML and css is used to create the form and star rating. JavaScript is used to validate and ensure that user fills out all the required fields

And selects a star rating before submitting. Here is the code snippet for the javaScript validation function.

```html
<script>
    function validateForm() {
    var name = document.forms["feedbackForm"]["name"].value;
    var email = document.forms["feedbackForm"]["email"].value;
    var comment = document.forms["feedbackForm"]["comment"].value;

    if (name == "" || email == "" || comment == "") {
        alert("Please fill in all the required fields.");
        return false;
    }

    // Check if any star is selected
    var stars = document.getElementsByName("star");
    var starValue = "";
    for (var i = 0; i < stars.length; i++) {
        if (stars[i].checked) {
            starValue = stars[i].value;
            break;
        }

    }
    if (starValue == "") {
        alert("Please select a star rating.");
        return false;
    }

    alert("Dear "+ name + ", Thank you very much for your feedback, " +" Your comment was "+
""+comment+""+" and you have rated us " + starValue + " stars.");
    return true;
```

```
    }
    // Adding event listener to the submit button
const subButton = document.getElementById("submitButton");
subButton.addEventListener("click", function(event) {
    event.preventDefault();
    validateForm();
});


</script>
```

For the quiz, as soon as the page opens a timer of 5 minutes start and when the timer goes off , a popup message appears and automatically closes the page.

JavaScript is used to calculate the marks and display it along with the respective medal.

```
const formQuiz = document.getElementById("quiz-form");


    formQuiz.addEventListener("click",calculateMarks);


    function calculateMarks() {
        var marks = 0;
        var medal;
        var q1 = document.querySelector('input[name="q1"]:checked').value;
        var q2 = document.querySelector('input[name="q2"]:checked').value;
        var q3 = document.querySelector('input[name="q3"]:checked').value;
        var q4 = document.querySelector('input[name="q4"]:checked').value;
        var q5 = document.querySelector('input[name="q5"]:checked').value;
        var q6 = document.querySelector('input[name="q6"]:checked').value;


        if (q1 === "b") {
            marks += 2;
        } else if (q1) {
            marks -= 1;
```

```javascript
    }

    if (q2 === "c") {

        marks += 2;

    } else if (q2) {

        marks -= 1;

    }


    if (q3 === "a") {

        marks += 2;

    } else if (q3) {

        marks -= 1;

    }


    if (q4 === "d") {

        marks += 2;

    } else if (q1) {

        marks -= 1;

    }


    if (q5 === "c") {

        marks += 2;

    } else if (q1) {

        marks -= 1;

    }


    if (q6 === "d") {

        marks += 2;

    } else if (q1) {

        marks -= 1;

    }
```

```javascript
    if (marks<=2){
       medal = "Bronze medal"
    }
    else if (marks <= 5 && marks >= 3){
       medal = "Silver medal"
    }
    else if (marks <= 9 && marks >= 6){
       medal = "GOLD medal"
    }
    else if (marks <= 12 && marks >= 10){
       medal = "Platinum medal"
    }


    alert(" Congragulations! Your mark is " + marks + " you have recieved a "+ medal); // Show the mark in a
popup message
   }
   var timeLimit = 1 * 60 * 1000; // convert minutes to milliseconds


   // start the timer
   var timer = setTimeout(function() {
   // display the time's up message
   alert("Time's up! if you wish to try again click the quiz button in the main page");


   // close the window
   window.close();
   }, timeLimit);
```

STUDENT 3 – Lakidu Haputhanthri

Student 3's role was to make the Online store and the About us page. For the online store I have used 8 products with different prices, a cart which provides the summary of the product name, price, quantity and total of the products selected. The customers are expected to insert there name and email address in the space provided and when the user selects the

```javascript
//Save personal details
function saveDetails() {
var name = document.getElementById("name").value;
var email = document.getElementById("email").value;
if (name === "" || email === "") {
alert("Fill out all the fields.");
return;
}
alert("Details saved successfully " + name);
}
```

products and finalize the payment the confirmation message is displayed. There are 2 buttons created to increase and decrease the size of the text in the website.JavaScript is used to handle the user entering the name and email address and shows an output message when the data are submitted, also an error

message if one of the fields Is left blank. I used 2 ID's "name" and "email" to pass the values. Here is the code snippet for that.

Then to increase and decrease the size of the text I used an ID named content for the text to apply the increase and decrease the size of the text, when increasing the text size is increased by 2 pixels and for decreasing the size

```javascript
//increase or decrease size
document.getElementById("smaller-font").addEventListener("click", decreaseFontSize);
document.getElementById("larger-font").addEventListener("click", increaseFontSize);

function decreaseFontSize() {
  var content = document.getElementById("content");
  var currentFontSize = window.getComputedStyle(content, null).getPropertyValue('font-size');
  content.style.fontSize = (parseFloat(currentFontSize) - 2) + 'px';
}

function increaseFontSize() {
  var content = document.getElementById("content");
  var currentFontSize = window.getComputedStyle(content, null).getPropertyValue('font-size');
  content.style.fontSize = (parseFloat(currentFontSize) + 2) + 'px';
}
```

STUDENT 4- Hammaad Rizwan

Student 4 role was to make the Mylist leaderboard sorted in descending order of points, with buttons to customize the Text colour and the background colour of the favorite page according to the User's preference. A newsletter form has been created to inform the user about constant updates regarding, nutrition and fitness to keep them motivated throughout their journey using Fitzen™. The link to the editor's page of student 4 can be seen in the footer section of each page on Fitzen™'s site.

```javascript
function changeColors() {

        const backgroundColor =
document.getElementById("background-color").value;
        const textColor = document.getElementById("text-color").value
        const myListElement = document.querySelector('#myListPageBody');
        myListElement.style.backgroundColor = backgroundColor;
        myListElement.style.color = textColor;

    }
```

Eventhough the myList page seem to be simple with minimal content, it uses Java script heavily, in order to load the XML file into the site, using DOM Parser methods. This data is being stored in an array, which each of the users details. Since

we are dealing with sensitive information the data is not visible in the code, therefore we access specific data using its tag name.

```
parser = new DOMParser();
        xmlDoc = parser.parseFromString(text,"text/xml");
        const users = xmlDoc.getElementsByTagName("user");
        const tbody = document.querySelector("#myListLeaderboard tbody");
        const usersArray = Array.from(users);
```

In order to display the information, we sort the data based on the points, the sort method takes in the current users points and the next users point, and using the difference between the next and current user points the data is being sorted, this uses O(N) complexity making it much efficient compared to other sorting algorithms.

```
usersArray.sort((current, next) => {
        const currentPoints =
parseInt(current.getElementsByTagName("points")[0].textContent);
        const nextPoints =
parseInt(next.getElementsByTagName("points")[0].textContent);
        return nextPoints - currentPoints;
    });
```

After the sorting is done, the forEach() method is used to loop through the sorted users array and create a table row for each user to be displayed in the HTML page

```
usersArray.forEach(user => {
        //To display the table in the HTML site takes only 3 fields to
display
        const fname = user.getElementsByTagName("fname")[0].textContent;
        const lname = user.getElementsByTagName("lname")[0].textContent;
        const points = user.getElementsByTagName("points")[0].textContent;

        const tableRow = document.createElement("tr");
        const tableDataName= document.createElement("td");
        const tableDataPoints = document.createElement("td");

        tableDataName.textContent = fname+" "+lname;

        tableDataPoints.textContent = points;

        tableRow.appendChild(tableDataName);
        tableRow.appendChild(tableDataPoints);

        tbody.appendChild(tableRow);
    });
```

The newsLetter form also uses javascript to validate the fields as it's vital that the user enters the required input, if not there would be syntax and runtime errors in the system causing bugs to enter the system.

```
<script>

    const newsLetterForm = document.getElementById("newsLetter-form");
    const subscribeButton = document.querySelector("#newsLetter-form
button[type='submit']");
    const newsLetterPage = document.getElementById("newsLetter-form");
    newsLetterForm.addEventListener("submit", (e) => {

    e.preventDefault();

    const name = newsLetterForm.elements["name"].value
    const fname = newsLetterForm.elements["name"].value;
    const email = newsLetterForm.elements["email"].value;
    const nameRegex = /^[A-Za-z]+$/;

    if (fname==="" || email === "") {
      alert("Please fill out all required fields");
      return;
    }

    if (name.split(" ").length>=2){
      alert("Enter your firstname");
```

```
      return;
    }


    if (!nameRegex.test(fname)) {
      alert("Name should contain only letters");
      return;
    }

    alert("Dear "+ newsLetterForm.elements["name"].value.split(" ")[0]+",
you have successfully subscribed for a personalized newsletter.");
    });
</script>
```

04.DISCUSSION OF UX/UI PRINCIPLES/APPLICATIONS/JUSTIFICATIONS

4.1   NAVIGATION TECHNIQUES

```
5.      <header>
6.        <div class="logo">
7.         <img class="logo-pic" src="logo.png" alt="logo">
8.        </div>
9.        <div class="heading">
10.        <h1>FITZEN</h1>
11.       </div>
12.       <div class="button-section">
13.        <button class="navi-buttons">
14.         <a class="button-text" href="#laki add link store" target="_blank">Online store</a>
15.        </button>
16.        <button class="navi-buttons">
17.          <a class="button-text" href="student 4 files/mylist.html" target="_blank">My list </a>
18.        </button>
19.        <button class="navi-buttons">
20.          <a class="button-text" href="gallerypage.html" target="_blank">Healthy foods</a>
21.        </button>
22.        <button class="signup-button" >
23.          <a class="button-text" href="signupPageUpdated.html" target="_blank">Signup login</a>
24.        </button>
25.       </div>
26.     </header>
```

```
.heading, .logo,.button-section{
   display: inline-block;
}
@font-face {
   font-family: Integral CF Main Heading;
   src: url(Demo_Fonts/Fontspring-DEMO-integralcf-bold.otf);
}
@font-face {
   font-family: Integral CF;
   src: url(Demo_Fonts/Fontspring-DEMO-integralcf-demiboldoblique.otf);
}
.h1{
   margin-top: 0%;
```

```css
    padding-top: 0%;

}

.heading{
    margin-left: 100px;
    margin-right: 120px;
    position: relative;
    top: -27px;
    font-family:"Integral CF Main Heading";
    font-size: larger;

}
.button-section{
    margin-left: 50px;
    position: relative;
    top: -27px;
}
.button-text{
    text-decoration: none;
    font-weight: bold;
    color: grey;
    font-family: Integral CF Main Heading;
    cursor: pointer;
    font-weight: bolder;
    font-size: larger;
    padding: 10px;
}
.button-text :hover{
    color:black;
    border: 2px;
    opacity:  0.8;
    transition-duration: 0.1s;
}
.navi-buttons{
    border: none;
    background-color:white;
    color: grey;
    margin-right: 15px;
    border-radius: 4px;
}

.navi-buttons :hover{
    color:black;
    border: 2px;
    opacity:  0.8;
    transition-duration: 0.1s;
}
.navi-buttons :active{
    color:rgb(6, 103, 110);
    opacity: 0.60;
    transition-duration: 0.1s;
```

```
}

.signup-button{
    background-color: white;
    color: black;
    cursor: pointer;
    font-weight: bolder;
    font-size: larger;
    padding: 10px;
    margin-right: px;
    position: relative;
    margin-left: 40px;
}
.signup-button :hover{
    color: #000;
    transition-duration: 0.2s;

}
.text-block1{
    margin-left: 260px;
    display: inline-block;
    font-family:Integral CF Main Heading;
    font-weight: bold;
}
```

Each page has a horizontal navigation bar and each button has seamless hover effect to indicate when user is hovering over it. The navigation bar is also fit to our theme by using heavy fonts and the same color combinations. All the main subpage's buttons are in the navigation bar "gallery page, leaderboard , online store, signup page"

The other subpages such as feedback form, about us page ,editors page and the newsletter subscribe page , those buttons are available to the user at the footer, which is like our secondary navigation bar.

```
<footer>
    <p class="footer-text">Copyright &copy; 2023 FITZEN</p>
    <div class="footer-buttons">

    <button class="navi-buttons">
     <a class="button-text" href="">About Us</a>
    </button>

    <button class="navi-buttons">
     <a class="button-text" href="EditorsPageEsandu.html">editors page</a>
    </button>

    <button class="navi-buttons">
     <a  class="button-text" href="feedbackform.html" target="_blank">Send Feedback</a>
```

```
    </button>

    <button class="scrollToTop-button" id="scrollToTop-button">&#8593;
    </button>
  </div>
 </footer>
```

```
footer{

    background-color: white;
    margin-top: 40px;
}
.footer-buttons{
    display: inline-block;
    position: relative;
    right: -200px;
    margin-right: px;
    font-family:Integral CF;
}

.footer-text{
    display: inline-block;
    margin-right: 100px;
    margin-left: 250px;
    font-family: Integral CF;
}
```

COPYRIGHT © 2023 FITZEN   ABOUT US   GET MORE NEWS   EDITORS PAGE   SEND FEEDBACK   ↑

4.2 COLOR BALANCE/SELECTION/CONSISTENCY

- The color combinations we used consists of three main primary colors (blue, white, and black).

  Colors codes used for the Website

  Blue - #21a5da

  Black - # 000000

  White = # FFFFFF

- The logo is built using those three colors and additionally we have used orange to highlight.

THE LOGO OF OUR FITNESS WEBSITE

- The background color is mainly white and black to give a minimalistic look and to fit our theme.
- The logo has been built using adobe illustrator and editing the image using photoshop, the motion graphics for the logo animation has been built using adobe after effects.
- The images we have used matches our topic which is gym and exercising related.
- We have used the same color combinations for all the subpages to maintain consistency.

4.3 COLOR CONTRAST TEST

Presentation Page

Gallery Page

Foreground Colour:

000000

Red:

Green:

Blue:

Hue (°)

Saturation (%):

Value (%):

Background Colour:

65908C

Red:

Green:

Blue:

Hue (°):

Saturation (%):

Value (%):

Results

This is example text. **Some of it bolded.** *Some of it italicized.*

Brightness Difference: (>= 125)	130.68
Colour Difference: (>= 500)	385
Are colours compliant?	sort of.
Contrast Ratio	5.921
WCAG 2 AA Compliant	YES
WCAG 2 AA Compliant (18pt+)	YES
WCAG 2 AAA Compliant	NO
WCAG 2 AAA Compliant (18pt+)	YES

Gallery Page Heading

Foreground Colour:

00BBC9

Red:

Green:

Blue:

Hue (°)

Saturation (%):

Value (%):

Background Colour:

FFFFFF

Red:

Green:

Blue:

Hue (°):

Saturation (%):

Value (%):

Results

This is example text. **Some of it bolded.** *Some of it italicized.*

Brightness Difference: (>= 125)	122.31
Colour Difference: (>= 500)	377
Are colours compliant?	NO
Contrast Ratio	2.345
WCAG 2 AA Compliant	NO
WCAG 2 AA Compliant (18pt+)	NO
WCAG 2 AAA Compliant	NO
WCAG 2 AAA Compliant (18pt+)	NO

Main web page

Foreground Colour:

000000

Red:

Green:

Blue:

Hue (°):

Saturation (%):

Value (%):

Background Colour:

FFFFFF

Red:

Green:

Blue:

Hue (°):

Saturation (%):

Value (%):

Results

This is example text. **Some of it bolded.** *Some of it italicized.*

Brightness Difference: (>= 125)	255
Colour Difference: (>= 500)	765
Are colours compliant?	YES
Contrast Ratio	21
WCAG 2 AA Compliant	YES
WCAG 2 AA Compliant (18pt+)	YES
WCAG 2 AAA Compliant	YES
WCAG 2 AAA Compliant (18pt+)	YES

Main web page second block

Foreground Colour:

808080

Red:

Green:

Blue:

Hue (°):

Saturation (%):

Value (%):

Background Colour:

FFFFFF

Red:

Green:

Blue:

Hue (°):

Saturation (%):

Value (%):

Results

This is example text. **Some of it bolded.** *Some of it italicized.*

Brightness Difference: (>= 125)	127
Colour Difference: (>= 500)	381
Are colours compliant?	sort of.
Contrast Ratio	3.949
WCAG 2 AA Compliant	NO
WCAG 2 AA Compliant (18pt+)	YES
WCAG 2 AAA Compliant	NO
WCAG 2 AAA Compliant (18pt+)	NO
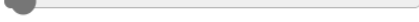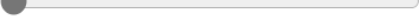
Main web page slogan Highlighted

Foreground Colour:
F27457

Red:

Green:

Blue:

Hue (°):

Saturation (%):

Value (%):

Background Colour:
FFFFFF

Red:

Green:

Blue:

Hue (°):

Saturation (%):

Value (%):

Results

This is example text. **Some of it bolded.** *Some of it italicized.*

Brightness Difference: (>= 125)	104.63
Colour Difference: (>= 500)	320
Are colours compliant?	NO
Contrast Ratio	2.833
WCAG 2 AA Compliant	NO
WCAG 2 AA Compliant (18pt+)	NO
WCAG 2 AAA Compliant	NO
WCAG 2 AAA Compliant (18pt+)	NO
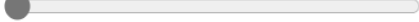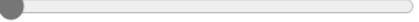
Blue highlighted in main page

Foreground Colour:
21A5DA

Red:

Green:

Blue:

Hue (°)

Saturation (%):

Value (%):

Background Colour:
FFFFFF

Red:

Green:

Blue:

Hue (°):

Saturation (%):

Value (%):

Results

This is example text. **Some of it bolded.** *Some of it italicized.*

Brightness Difference: (>= 125)	123.42
Colour Difference: (>= 500)	349
Are colours compliant?	NO
Contrast Ratio	2.815
WCAG 2 AA Compliant	NO
WCAG 2 AA Compliant (18pt+)	NO
WCAG 2 AAA Compliant	NO
WCAG 2 AAA Compliant (18pt+)	NO

Editors page Signature

Foreground Colour:

\# F51E05

Red:

Green:

Blue:

Hue (°):

Saturation (%):

Value (%):

Background Colour:

\# FFFFFF

Red:

Green:

Blue:

Hue (°):

Saturation (%):

Value (%):

Results

This is example text. **Some of it bolded.** *Some of it italicized.*

Brightness Difference: (>= 125)	163.56
Colour Difference: (>= 500)	485
Are colours compliant?	sort of.
Contrast Ratio	4.141
WCAG 2 AA Compliant	NO
WCAG 2 AA Compliant (18pt+)	YES
WCAG 2 AAA Compliant	NO
WCAG 2 AAA Compliant (18pt+)	NO

Editors page Surname color

Foreground Colour:

\# 787878

Red:

Green:

Blue:

Hue (°):

Saturation (%):

Value (%):

Background Colour:

\# FFFFFF

Red:

Green:

Blue:

Hue (°):

Saturation (%):

Value (%):

Results

This is example text. **Some of it bolded.** *Some of it italicized.*

Brightness Difference: (>= 125)	135
Colour Difference: (>= 500)	405
Are colours compliant?	sort of.
Contrast Ratio	4.415
WCAG 2 AA Compliant	NO
WCAG 2 AA Compliant (18pt+)	YES
WCAG 2 AAA Compliant	NO
WCAG 2 AAA Compliant (18pt+)	NO

My List page(All buttons in the store)

Foreground Colour:

F91B1B

Red:

Green:

Blue:

Hue (°):

Saturation (%):

Value (%):

Background Colour:

F5F217

Red:

Green:

Blue:

Hue (°):

Saturation (%):

Value (%):

Results

This is example text. **Some of it bolded.** *Some of it italicized.*

Brightness Difference: (>= 125)	124.55
Colour Difference: (>= 500)	223
Are colours compliant?	NO
Contrast Ratio	3.383
WCAG 2 AA Compliant	NO
WCAG 2 AA Compliant (18pt+)	YES
WCAG 2 AAA Compliant	NO
WCAG 2 AAA Compliant (18pt+)	NO

My List page(Buttons in the store when hovered)

Foreground Colour:

000000

Red:

Green:

Blue:

Hue (°)

Saturation (%):

Value (%):

Background Colour:

7D7DD0

Red:

Green:

Blue:

Hue (°):

Saturation (%):

Value (%):

Results

This is example text. **Some of it bolded.** *Some of it italicized.*

Brightness Difference: (>= 125)	134.46
Colour Difference: (>= 500)	458
Are colours compliant?	sort of.
Contrast Ratio	5.716
WCAG 2 AA Compliant	YES
WCAG 2 AA Compliant (18pt+)	YES
WCAG 2 AAA Compliant	NO
WCAG 2 AAA Compliant (18pt+)	YES

About us page Heading

Foreground Colour:

30D1CE

Red:

Green:

Blue:

Hue (°)

Saturation (%):

Value (%):

Background Colour:

FFFFFF

Red:

Green:

Blue:

Hue (°):

Saturation (%):

Value (%):

Results

This is example text. **Some of it bolded.** *Some of it italicized.*

Brightness Difference: (>= 125)	94.481
Colour Difference: (>= 500)	302
Are colours compliant?	NO
Contrast Ratio	1.885
WCAG 2 AA Compliant	NO
WCAG 2 AA Compliant (18pt+)	NO
WCAG 2 AAA Compliant	NO
WCAG 2 AAA Compliant (18pt+)	NO

Newsletter page

Foreground Colour:

2A292A

Red:

Green:

Blue:

Hue (°)

Saturation (%):

Value (%):

Background Colour:

D69ADA

Red:

Green:

Blue:

Hue (°):

Saturation (%):

Value (%):

Results

This is example text. **Some of it bolded.** *Some of it italicized.*

Brightness Difference: (>= 125)	137.82
Colour Difference: (>= 500)	461
Are colours compliant?	sort of.
Contrast Ratio	6.551
WCAG 2 AA Compliant	YES
WCAG 2 AA Compliant (18pt+)	YES
WCAG 2 AAA Compliant	NO
WCAG 2 AAA Compliant (18pt+)	YES

4.4 TYPOGRAPHY/CONSISTENCY

We have used heavy weight fonts to emphasize further the fitness aspect of our website. All are main headings use a higher font size than the button text and the sub headings too differentiate them
also we have used italic for the main headings

The font name is integral CF, this motivates the user to continue on their fitness journey and is suitable for the purpose of the website. A Smaller font size has been used to type the sub points under each explanation for each subpage (The points explaining what each subpage has to offer in the main page.

4.5 ACCESSIBILITY

Text Accessibility techniques

1)Providing descriptions for datalist options

```html
<div class="form-group">
                <label for="physical-activity">PHYSICAL ACTIVITY:</label>
                <input type="text" id="physical-activity" name="physical-activity"
list="search">
                <datalist id="search">
                  <option value="Cardio-Vascular">
                    <option value="Strength Training">
                    <option value="Yoga and Pilates">
                    <option value="Sports">
                    <option value="Outdoor activities">
                    <option value="Dancing">
                    <option value="Martial arts">
                  </option>
                </datalist>
              </div>
```

2) Adding headings to the page and proper heading levels(Semantic html)

```html
<h1 id="headingsignup">SIGN UP</h1>
```

```html
<h1>FITNESS</h1>
    <h2>ASSISTANT APPLICATION</h2>
        <h3>MEMBERS</h3>
            <h4>LAKIDU HAPUTHANTHRI</h4>
            <h4>RUNISI NIKOYA SAMARANAYAKE</h4>
            <h4>ESANDU OBADAARACHCHI</h4>
            <h4>HAMMAAD RIZWAN</h4>
```

```html
<h1>FITZEN</h1>
<p class="FirstName"><span class="text-color1">HAMMAAD  </span></p>
        <p><span class="text-color2">RIZWAN</span></p>
```

```html
<h1>Fitness Quiz &#40;time limit <mark style="background-color: rgb(242,116, 87);">5
minutes</mark>&#41;</h1>
h2>Question 2: What is the recommended target heart rate during cardiovascular
excersice?</h2>
<h2>Question 3: What is the best time to exercise?</h2>
<h2>Question 4: What is not considered as a type of cardiovascular exercise?</h2>
```

3)Using descriptive link text

```html
<button class="signup-button" >
            <a class="button-text" href="signupPageUpdated.html" target="_blank">Signup
login</a>
        </button>
```

```html
<a class="button-text" href="#laki add link store" target="_blank">Online store</a>
 <a class="button-text" href="student 4 files/mylist.html" target="_blank">My list </a>
 <a class="button-text" href="student 1 files/gallerypage.html" target="_blank">Healthy
foods</a>
<a class="button-text" href="student 1 files/signupPageUpdated.html" target="_blank">Signup
login</a>
```

4)Contrast Ratio

```html
<p>
                FITZEN IS COMMITED TO PROVING ACCESSIBLE AND COMPREHENSIVE FITNESS RESOURCES
TO HELP PEOPLE ACHIEVE THEIR FITNESS GOALS.
                OUR TEAM STAYS UP TO DATE WITH THE LATEST TRENDS AND RESEARCH IN FITNESS AND
NUTRITION.
                <span class="text-color3">JOIN US ON OUR MISSION</span> TO INSPIRE AND <span
class="text-color3">EMPOWER </span> PEOPLE TO LIVE THEIR HEALTHIEST LIVES "
           </p>
```

Image Accessibility techniques

1)Using alt attributes in images

```html
<img class="logo-pic" src="logo.png" alt="logo">
```

```html
    <div class="student-pic">
        <img class="student-pic" src="HammaadStudent.png" alt="">
    </div>
```

```html
        <div class="imgback-ground"></div>
        <div class="gallery">
            <img class="thumbnail" src="pic.jpg" alt="Grilled chicken with vegetables is a
healthy and delicious dish that features juicy and flavorful chicken breasts alongside a
colorful variety of grilled vegetables. The chicken is often marinated in a blend of herbs,
spices, and citrus juices to infuse it with extra flavor, while the vegetables are brushed
with olive oil and seasoned with salt and pepper before being grilled until they are tender
and slightly charred. This dish is a perfect option for those who want to enjoy a satisfying
meal that is packed with nutrients and bursting with flavor. It's a great way to get in your
daily dose of veggies and protein in one delicious dish!">
        <div class="large-image">
        <img id="main-image" src="" alt="">
        <p class="description" id="image-description"></p>
        </div>
```

```html
<img class="slogan" src="slogan2.PNG" alt="slogan">
 <img class="pic1" src="main 1.jpg" alt="pic1">
<img class="pic2" src="track your progress.jpg" alt="track your progress">
<img class="pic3" src="main3.jpg" alt="picforquiz">
 <img class="pic4" src="online store pic.jpeg" alt="onlinestorepic">
<img class="pic5" src="pic5.png" alt="healthyfoods">
```

Form Accessibility Techniques

1)Adding labels to forms

```html
<div class="form-group">
        <label for="name">NAME:</label>
        <input type="text" id="name" name="name" >
    </div>


    <div class="form-group">
      <label for="email">EMAIL:</label>
      <input type="email" id="email" name="email" >
    </div>
      <label for="DATE OF BIRTH"> DATE OF BIRTH:</label>
```

```
            <input type="date" id="date" name="date" >

            <label for="gender">GENDER:</label>

<label for="physical-activity">PHYSICAL ACTIVITY:</label>
                <input type="text" id="physical-activity" name="physical-activity"
list="search">
<label for="food-intake">FOOD INTAKE:</label>
                <input type="text" id="food-intake" name="food-intake" list="search-list">
<label for="workout-time">TIME OF WORKOUTS:</label>
                <input type="time" id="workout-time" name="workout-time">
<label for="meals">NO OF MEALS PER DAY:</label>
                <input type="text" id="meals" name="meals" list="search-menu">
```
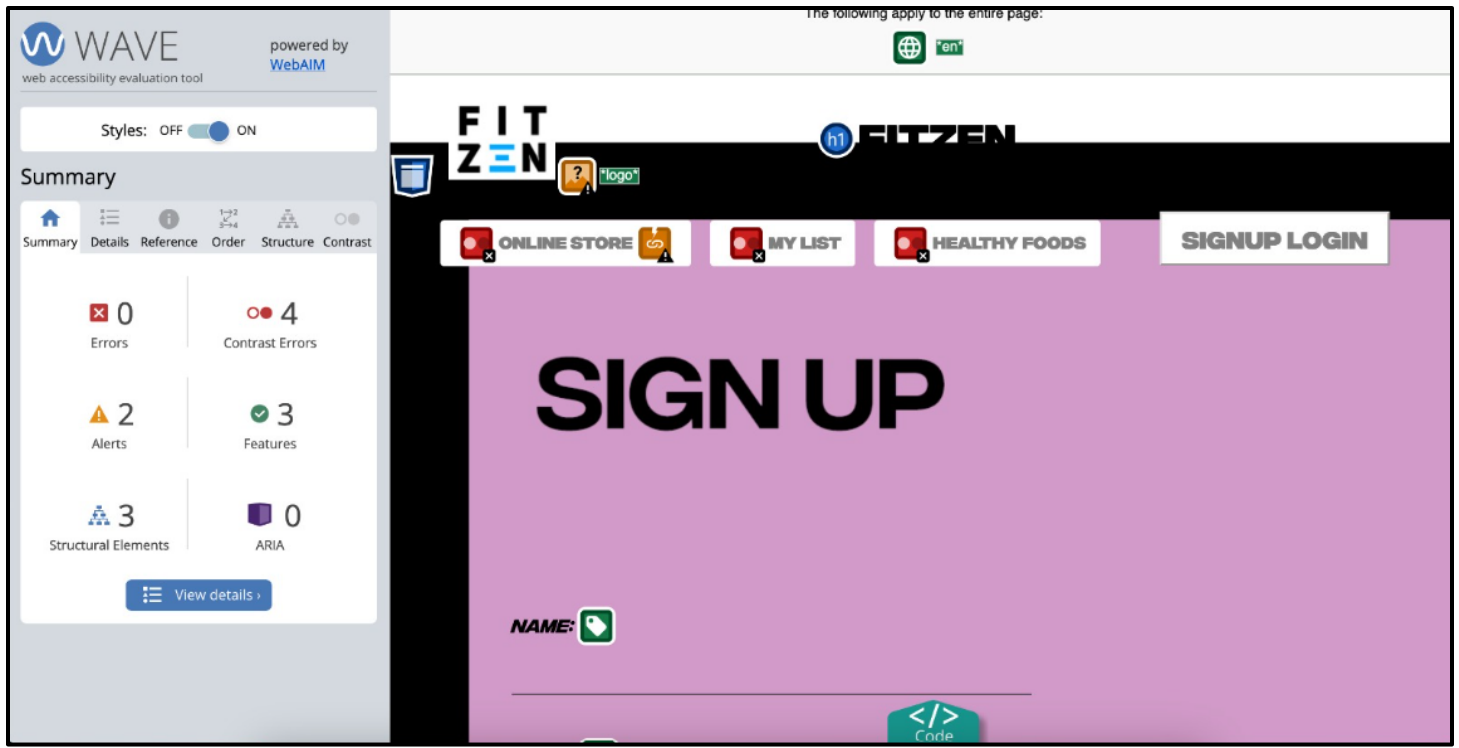
4.6 ACCESSIBILITY TECHNIQUES

4.7 SITE DIAGRAM

4.7 SELF REFLECTION

STUDENT 1

I have learned a lot about working cooperatively with a team to achieve a common goal, and this experience has been very helpful in my future endeavors. I was able to learn about dynamic programming and how xml file works and other more which is required for any web designer. Additionally, I was able to learn about JavaScript, which is a critical programming language for web development. Overall, this experience has been very rewarding and I am grateful for the skills that I have learned.

STUDENT 2

When doing this coursework, I realized that working in a group increases productivity. We all got together designed and finalised all the website design structures. We also talked about having deadlines for each individual tasks to make sure we finish on time. Furthermore I learnt javascript and the fundamentals of web designing during this coursework.

STUDENT 3

While doing this coursework I have learnt that teamwork is important and it helps to finish our work faster. We all first discussed the design before doing the html codes which made it easier to finish it quickly. I gained a lot of experience on what a group work is like and I learnt how to validate forms and learnt javascript during this coursework

STUDENT 4

During the course of our project, I have learnt how to work in a team collaboratively with the means of dynamic programming with colleagues that have the same goal and motive.Moreover I have also learnt how forms get validated and are recorded in other sites.

ASSUMPTIONS

In the login form if enter a name and the email it means that the user has already signed in and created an account.