



INFORMATICS  
INSTITUTE OF  
TECHNOLOGY

**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**

Tutorial Group : A

Coursework Group No : 07

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## 1. Introduction

**Topic Chosen:** Ecommerce Site

The website we developed is named BuyAnything.com, which that aims to guide its users through their journey to buy any products.

**Features:**

- Presentation Page
- Main Page
- Comment Page
- Gallery Page
- Quiz Page
- Page Editor Pages
- Sign Up Form Page
- About Us Page
- Buy Products Page

**Members:**

- |             |         |          |            |
|-------------|---------|----------|------------|
| • Alfian    | 2117514 | 20210495 | Student 01 |
| • Ridmika   | 2117527 | 20210763 | Student 02 |
| • Mathushan | 2119624 | 20200785 | Student 03 |

## 2. Research on existing systems

In order to gain a better understanding of the task at hand we needed to conduct our own research into E commerce websites. The two websites we mainly referenced were Amazon and AliExpress.

### 1. Amazon

A one of famous and top e commerce website. There is no limits for the items they have. That's why in the logo there is a arrow mark from A to Z it means they have A to Z named items.

**Features:**

Can deliver to most countries.	Sign up form	Sign in form
Users can sell items.	Currency convertor option	points system for offer

### 2. Ali Express

Also, a top e commerce website in this world with lots of items.

**Features:**

Can deliver to most countries.	Sign up form	Sign in form
Users can do live review on products	Currency convertor option	points system for offer

### 3. Technical Discussion

#### Alfan Student 01

Firstly I had to create a presentation page with the details of our group. For this I created a separate page from the main page and used a javascript in the presentation page which would redirect it to the home page after 5 seconds.

```
var seconds =0;
function displayseconds()
{
    seconds+=1;
    document.getElementById("seconddisplay").innerText="This page will be redirected in" +seconds+" Seconds";
    setInterval(displayseconds,1000);
function redirectpage() {
    window.location="file:///C:/Users/HP/OneDrive/Desktop/html/test.html";
}
setTimeout('redirectpage()',4000);
```

#### Sign Up Page

Secondly, I created a sign up page to get user information which includes fields regarding personal information and the topic we were given. To confirm correct data are entered, I used javascript to validate these fields.

```
,
validateUsername(){
    if(this.formValues.username === ""){
        this.errorValues.usernameErr = "* Please Enter Your Name"
        this.showErrorMsg(0,this.errorValues.usernameErr)
    } else if(this.formValues.username.length <= 4 ){
        this.errorValues.usernameErr = "* Username must be atleast 5 Characters"
        this.showErrorMsg(0,this.errorValues.usernameErr)
    } else if(this.formValues.username.length > 14){
        this.errorValues.usernameErr = "* Username should not exceeds 14 Characters"
        this.showErrorMsg(0,this.errorValues.usernameErr)
    } else {
        this.errorValues.usernameErr = ""
        this.showSuccessMsg(0)
    }
}
```

UserName :

db

*\* Username must be atleast 5 Characters*

```

    validateAge() {
    const ageno = /^\\d{2}$/
    if(this.formValues.age === ""){
        this.errorValues.AgeErr = "* Please Enter your Age"
        this.showErrorMsg(1,this.errorValues.AgeErr)
    } else if(ageno.test(this.formValues.age)){
        this.errorValues.ageErr = ""
        this.showSuccessMsg(1)
    } else {
        this.errorValues.ageErr = "* Invalid Age"
        this.showErrorMsg(1,this.errorValues.ageErr)
    }
    }
}

```

```

validateEmail(){
    //abc@gmail.co.in
    const regExp = /^[a-zA-Z0-9-_.]+)@([a-zA-Z0-9]+)\\.([a-zA-Z]{2,10})\\.([a-zA-Z]{2,8})?$/
    if(this.formValues.email === ""){
        this.errorValues.emailErr = "* Please Enter Valid Email"
        this.showErrorMsg(2,this.errorValues.emailErr)
    } else if(!(regExp.test(this.formValues.email))){
        this.errorValues.emailErr = "* Invalid Email"
        this.showErrorMsg(2,this.errorValues.emailErr)
    } else {
        this.errorValues.emailErr = ""
        this.showSuccessMsg(2)
    }
}
}

```

```

validateConfirmpassword(){
    if(this.formValues.confirmpassword === ""){
        this.errorValues.confirmpasswordErr = "* Invalid Confirm Password"
        this.showErrorMsg(5,this.errorValues.confirmpasswordErr)
    } else if(this.formValues.confirmpassword === this.formValues.password && this.errorValues.passwordErr === ""){
        this.errorValues.confirmpasswordErr = ""
        this.showSuccessMsg(5)
    } else if(this.errorValues.passwordErr){
        this.errorValues.confirmpasswordErr = "* An error occurred in Password Field"
        this.showErrorMsg(5,this.errorValues.confirmpasswordErr)
    } else {
        this.errorValues.confirmpasswordErr = "* Password Must Match"
        this.showErrorMsg(5,this.errorValues.confirmpasswordErr)
    }
}
}

```

Confirm Password :

....

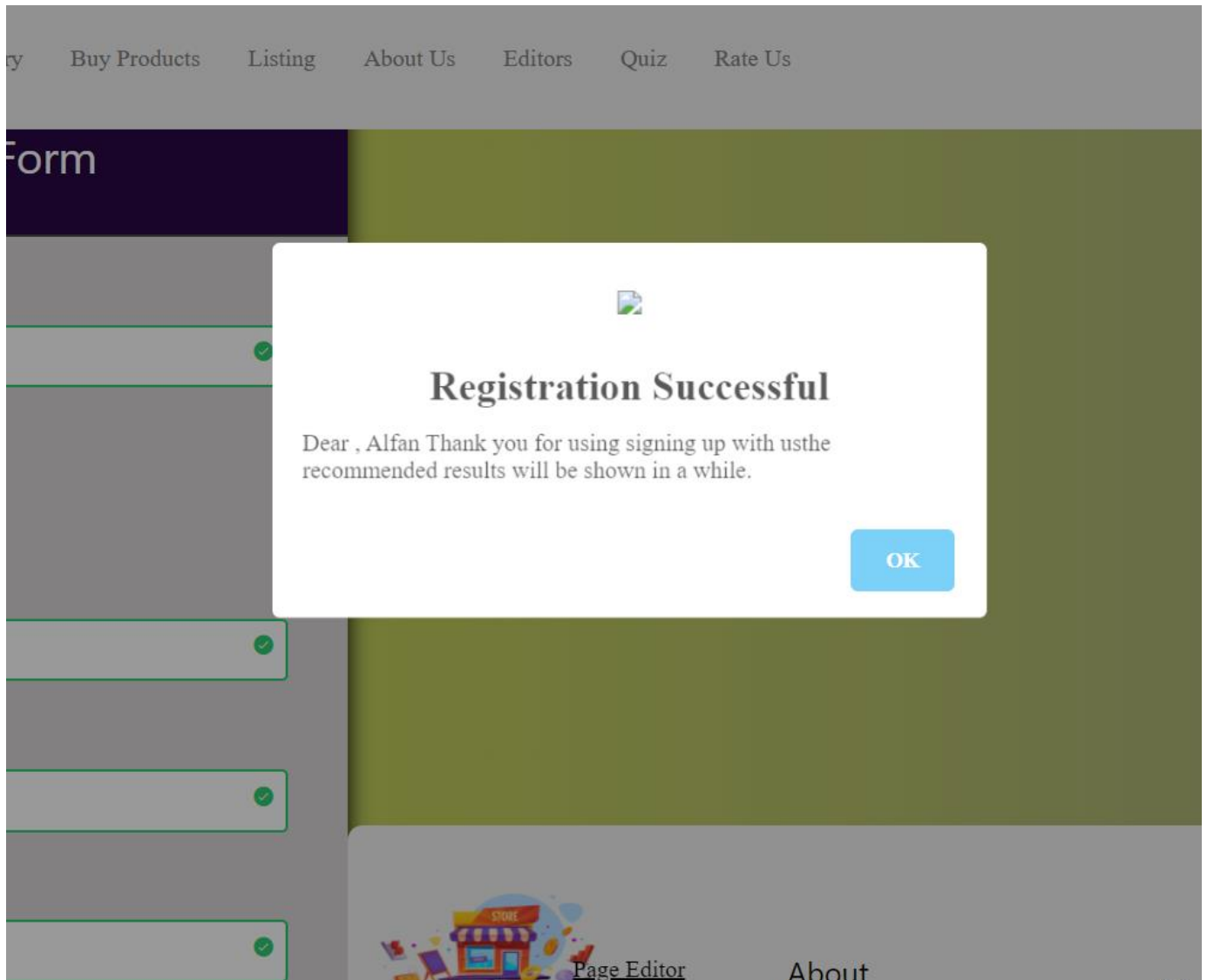
!

*\* Password Must Match*

```

alertMessage(){
  const {usernameErr , ageErr, emailErr , phonenumberErr , passwordErr , confirmPasswordErr}= this.errorValues
  if(usernameErr == "" && ageErr == "" && emailErr == "" && phonenumberErr == "" && passwordErr == "" && confirmPasswordErr == ""){
    swal("Registration Successful","Dear , "+this.formValues.username+" Thank you for using signing up with us the recommended results will be shown in a while.,"success ").then(() => {
      console.log(this.formValues)
      this.removeInputs()
      window.location = "file:///C:/Users/HP/OneDrive/Desktop/html/gallerypage.html";
    })
  } else {
    swal("Give Valid Inputs","Click ok to Continue" ,"error")
  }
}
}

```



## Gallery Page

Lastly, I created a gallery page to display healthy recipes where the user can select a thumbnail and the image will be enlarged did it with javascript

```
function myFunction(imgs) {  
    var expandImg = document.getElementById("expandedImg");  
    var imgText = document.getElementById("imgtext");  
    expandImg.src = imgs.src;  
    imgText.innerHTML = imgs.alt;  
    expandImg.parentElement.style.display = "block";  
}
```

## Ridmika Student 02

### Main Page

I thoroughly examined the design traits and patterns of websites for the main page design, visiting many of them until the foundation of what to expect from a website's Main page became firm in my mind. I chose a photograph that matches the website's color scheme and set the image as the background.



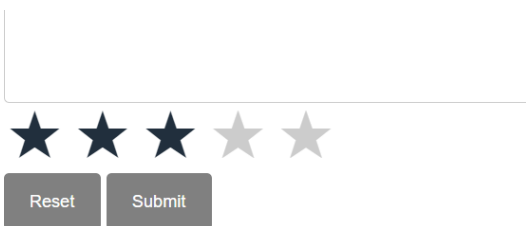
### Comment Page

I used JavaScript for the validation part of the Comment page.

```
function checkValidation(formCom) {
    let fName = formCom.name.value;
    let fEmail = formCom.emailadd.value;
    let fComment = formCom.comment.value;
    let mailformat = /^\\w+([\\.-]?\\w+)*@\\w+([\\.-]?\\w+)*\\.\\w{2,3}+$/;
    let selectedRatting = getRadioValue(formCom.starRating);
    if(fName=="") {
        alert("Name field required!");
    }
    else if(fEmail=="") {
        alert("Email field required!");
    }
    else if(!fEmail.match(mailformat)) {
        alert("You have entered an invalid email address!");
    }
    else if(fComment=="") {
        alert("Comment field required!");
    }
    else if(selectedRatting=="") {
        alert("Rating is required!");
    }
}
```

I used radio buttons and internal CSS codes to create a 5-star rating.

```
<div class="css3-rating-stars">
<input type="radio" name="starRating" id="star-rating-1-0" value="Excellent" />
<label for="star-rating-1-0" title="!Excellent"></label>
<input type="radio" name="starRating" id="star-rating-1-1" value="Good" />
<label for="star-rating-1-1" title="!Good"></label>
<input type="radio" name="starRating" id="star-rating-1-2" value="Satisfactory" />
<label for="star-rating-1-2" title="!Satisfactory"></label>
<input type="radio" name="starRating" id="star-rating-1-3" value="Neutral" />
<label for="star-rating-1-3" title="!Neutral"></label>
<input type="radio" name="starRating" id="star-rating-1-4" value="Poor" />
<label for="star-rating-1-4" title="!Poor"></label>
</div>
```



## Quiz Page

I created a JavaScript quiz using prompt boxes and depending on the user's score, they are awarded a badge, of which they are informed through are alert. Also, I created a table for correct answers.

```
q1 = parseInt(prompt("What is the newest version of PlayStation?\n1. PS4\n2. PS5\n3. PS6 X\n4. PS7"));
q2 = parseInt(prompt("What is the latest iPhone out right now?\n1. iPhone 14\n2. iPhone 15\n3. iPhone 12\n4. iPhone 13"));
q3 = parseInt(prompt("What is latest windows version?\n1. windows 8\n2. windows 12\n3. windows 11\n4. windows 10"));
q4 = parseInt(prompt("What is latest android version?\n1. 10\n2. 12\n3. 11\n4. 13"));
q5 = parseInt(prompt("Who is amazon founder?\n1. Bill Gates\n2. Mark Zuckerberg\n3. Jack Ma\n4. Jeff Bezos"));
```



This page says

What is the newest version of PlayStation?

1. PS4
2. PS5
3. PS6 X
4. PS7

This page says

Congratulation! You have earned 5 points with a Bronze Badge

Question	Correct Answer	Your Answer status
What is the newest version of PlayStation?	PS5	Correct
What is the latest iPhone out right now?	iPhone 13	Inorrect
What is latest windows version?	windows 11	Invalid Answer
What is latest android version?	12	Correct
Who is amazon founder?	Jeff Bezos	Correct

### Mathushan Student 03

I was given the tasks of student 3 in the coursework which are discussed below.

- **Buy product page**

Firstly, I had to create a buy product page with all the details of products and other user input information. I created a separate page from the main page and used a 'meta' tag to define the description, Keywords and the description of myself the author of the respective page, and also I defined the viewport to control the page's dimensions and scaling for different devices.

```
<meta name="description" content="This is the description">
```

Then after I add some products and the necessary information to the relevant places.

```

<div class="shop-item">
  <span class="shop-item-title">Diary Milk</span>
  
  <div class="shop-item-details">
    <span class="shop-item-price">Rs.200</span>
    <button class="btn btn-primary shop-item-button" type="button">ADD TO CART</button>
  </div>
</div>
<div class="shop-item">
  <span class="shop-item-title">Terrone</span>
  
  <div class="shop-item-details">
    <span class="shop-item-price">Rs.300</span>
    <button class="btn btn-primary shop-item-button" type="button">ADD TO CART</button>
  </div>

```

The footers and the link to the social media link with logos also been implemented in the respective page, the footer also contains the link to the editors page.

```

<footer class="main-footer">
  <div class="container main-footer-container">
    <h3 class="band-name">Buy Anything</h3>
    <ul class="nav footer-nav">
      <li>
        <a href="https://www.youtube.com" target="_blank">
          
        </a>
      </li>
      <li>
        <a href="https://www.facebook.com" target="_blank">
          
        </a>
      </li>
    </ul>
    <div class="button">
      <a href="editors page - student3.html" class="btn"><br><br>Page Editor : Mathushan. M<br><br>last modified: 08.04.2022</a>
    </div>
  </div>

```

The personal details of the users also validated.

```

<form name="myform" method="post" action="abc.jsp" onsubmit="return validateform()">
  Name: <input type="text" name="name"><br />
  Email: <input type="email" name="Email"><br />
  Mobile_no: <input type="text" name="Mobbille_no"><br />
  <input type="submit" value="Place The Order">
</form>

```

```

<script>
    function validateform() {
        var name = document.myform.name.value;
        var Email = document.myform.Email.value;

        if (name == null || name == "") {
            alert("Name can't be blank");
            return false;
        }
        else if (Email == null || Email == "") {
            alert("Email can't be blank.");
            return false;
        }
        else if (Mobile_no == null || Mobile_no == "") {
            alert("Enter valid Mobile Number.");
            return false;
        }
    }
</script>

```

- **Font size change**

```

<div class="wrapper">
    <div class="buttons">
        <span class="btn" onclick="document.getElementById('txt').style.fontSize= '0.5em'">A</span>
        <span class="btn active" onclick="document.getElementById('txt').style.fontSize= '1.25em'">A</span>
        <span class="btn" onclick="document.getElementById('txt').style.fontSize= '1.75em'">+A</span>
    </div>

```

- **About Us Page**

The about us page contains the images of the group members with the hover effect with the link given for the editor page in the bottom.



This page says

Name can't be blank

OK

This page says

Email can't be blank.

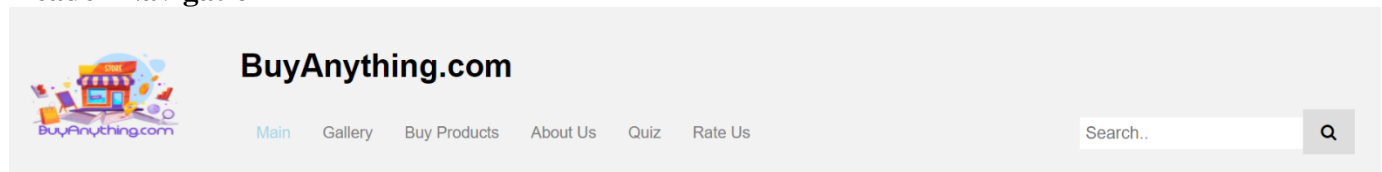
OK

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

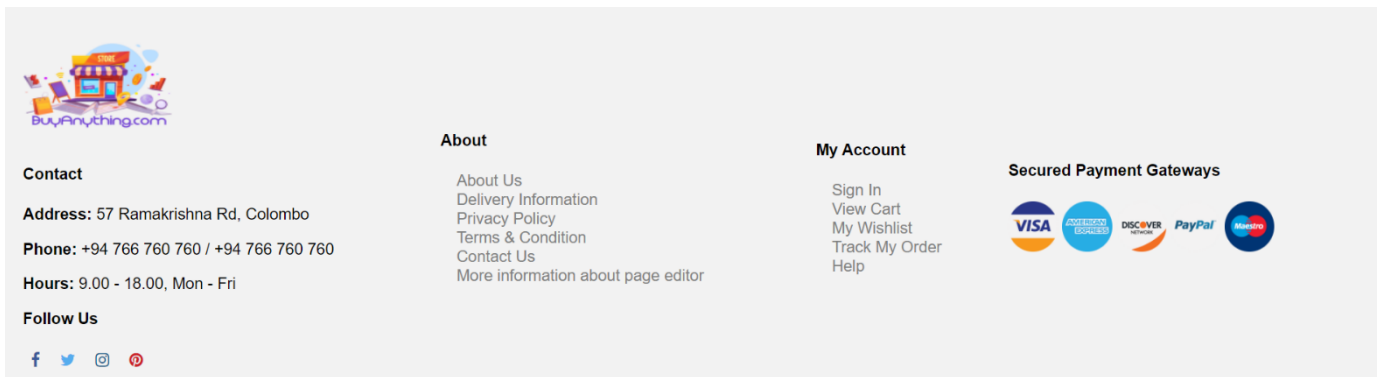
### 4.1 Navigation Techniques

We used a normal horizontal menu in the header and a vertical menu in the footer of each page for the navigation bar. Users may access all the key features (Main, Gallery, Quiz, Buy Products, About Us, and Rate Us) from the overhead bar. We also included a sign-in option and a link to the Page Editor to the footer.

#### Header Navigation



#### Footer Navigation



## HTML Code

```
<!-- ----- Header ----- -->
<header>
  <table align="center" width=100%><tr>
    <td rowspan=2><img src = "Logo.png" class="logo" alt="logo"></td>
    <td><h1>BuyAnything.com</h1></td></tr>
    <tr><td><div class="navigationBar">
      <a href="#Main.html" class="active">Main</a>
      <a href="gallerypage.html">Gallery</a>
      <a href="#.html">Buy Products</a>
      <a href="#.html">About Us</a>
      <a href="Quiz.html">Quiz</a>
      <a href="Comment.html">Rate Us</a>
      <div class="search-container">
        <form action="/action_page.php">
          <input type="text" placeholder="Search.." name="search">
          <button type="submit"><i class="fa fa-search"></i></button>
        </form>
      </div>
    </td></tr></table>
</header>
```



```

/*Navigation Bar*/
3.navigationBar{
    overflow: hidden;
-}
3.navigationBar a {
    font-size: 16px;
    color:gray;
    float: left;
    text-align: center;
    padding: 14px 16px;
    text-decoration: none;
-}
3.navigationBar a: hover, .navigationBar a.active {
    color:lightblue;
-}
header, footer{
    border-radius: 10px;
    background-color: #f2f2f2 ;
    padding: 20px;
    font-family: Arial, Helvetica, sans-serif;
    }

```



```

/*footer*/
.fa {
    padding: 8px;
    text-decoration: none;
}

.fa:hover {
    opacity: 0.7;
}

.fa-facebook {
    color: #3B5998;
}

.fa-twitter {
    color: #55ACEE;
}

.fa-instagram {
    color: #125688;
}

.fa-pinterest {
    color: #cb2027;
}

.payment{
    width:50px;
    height: 50px;
}

```

```

}
.footerLink a {
    font-size: 16px;
    color: gray;
    padding: 14px 16px;
    text-decoration: none;
}
.footerLink a:hover {
    color: lightblue;
}

```

## 4.2 Color balance/selection/consistency

We used the light color image for the Main page background. The header and footer navigation bars are brought to attention by using black text on a light gray background.

The logo was also created with red, orange, and purple colors. Then it easily comes to mind.



## 4.3 Color Contrast Test

We noticed that the colors white, gray, and black are frequently used on another website during our research. Therefore, we used a similar color scheme.

The combination of the navigation bars and background provides the Color Contrast Check provided below,

## Colour Contrast Check

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

Foreground Colour:	Background Colour:	Results
#F2F2F2	#FFFFFF	This is example text. Some of it bolded. Some of it italicized.
Red: <input type="range"/>	Red: <input type="range"/>	Brightness Difference: ( $\geq 125$ ) <input type="text" value="13"/>
Green: <input type="range"/>	Green: <input type="range"/>	Colour Difference: ( $\geq 500$ ) <input type="text" value="39"/>
Blue: <input type="range"/>	Blue: <input type="range"/>	Are colours compliant? <input type="text" value="NO"/>
Hue (°): <input type="range"/>	Hue (°): <input type="range"/>	Contrast Ratio <input type="text" value="1.119"/>
Saturation (%): <input type="range"/>	Saturation (%): <input type="range"/>	WCAG 2 AA Compliant <input type="text" value="NO"/>
Value (%): <input type="range"/>	Value (%): <input type="range"/>	WCAG 2 AA Compliant (18pt+) <input type="text" value="NO"/>
		WCAG 2 AAA Compliant <input type="text" value="NO"/>
		WCAG 2 AAA Compliant (18pt+) <input type="text" value="NO"/>

The combination used for the logo and logo texts provides the Color Contrast Check provided below,

## Colour Contrast Check

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

Foreground Colour:	Background Colour:	Results
#9900FF	#FF6600	This is example text. Some of it bolded. Some of it italicized.
Red: <input type="range"/>	Red: <input type="range"/>	Brightness Difference: ( $\geq 125$ ) <input type="text" value="61.302"/>
Green: <input type="range"/>	Green: <input type="range"/>	Colour Difference: ( $\geq 500$ ) <input type="text" value="459"/>
Blue: <input type="range"/>	Blue: <input type="range"/>	Are colours compliant? <input type="text" value="NO"/>
Hue (°): <input type="range"/>	Hue (°): <input type="range"/>	Contrast Ratio <input type="text" value="1.883"/>
Saturation (%): <input type="range"/>	Saturation (%): <input type="range"/>	WCAG 2 AA Compliant <input type="text" value="NO"/>
Value (%): <input type="range"/>	Value (%): <input type="range"/>	WCAG 2 AA Compliant (18pt+) <input type="text" value="NO"/>
		WCAG 2 AAA Compliant <input type="text" value="NO"/>
		WCAG 2 AAA Compliant (18pt+) <input type="text" value="NO"/>

### 4.4 Typography / consistency

Fonts we used are Times New Roman , Times ,serif, Arial , Helvetica, sans-serif roboto font (import url 'https://fonts.googleapis.com/css2?family=Roboto:wght@300&display=swap')

We made with the styles and colors on user eye catching way

#### CSS codes

font-family: Arial;  
font-size: 17px;  
font-family: 'Times New Roman', Times, serif;

### 4.5 Accessibility

Buy Anything is designed to help anyone to purchase a variety of products online. Our aim is to provide the best products to the customers. There are plenty of products and groceries which the page helps the users through the best navigation.

The website was also designed such that it is also favorable to screen readers.

### Text Accessibility:

We used images for the product information and used text when needed. By using brief texting method user can identify the product page easy to use.

We used headings and subheadings to form an outline of the page. We maintained heading levels. This helped to organize the page such that is becomes easily understandable to non-visual users, including search engines, and to make it easy for screen reader users to navigate.

```
<p1><b><u>About Us</u></b></p1>  
<p2>Our web site brings you hundreds of millions of products in over 40 different major categories.<br />
```

### Image accessibility:

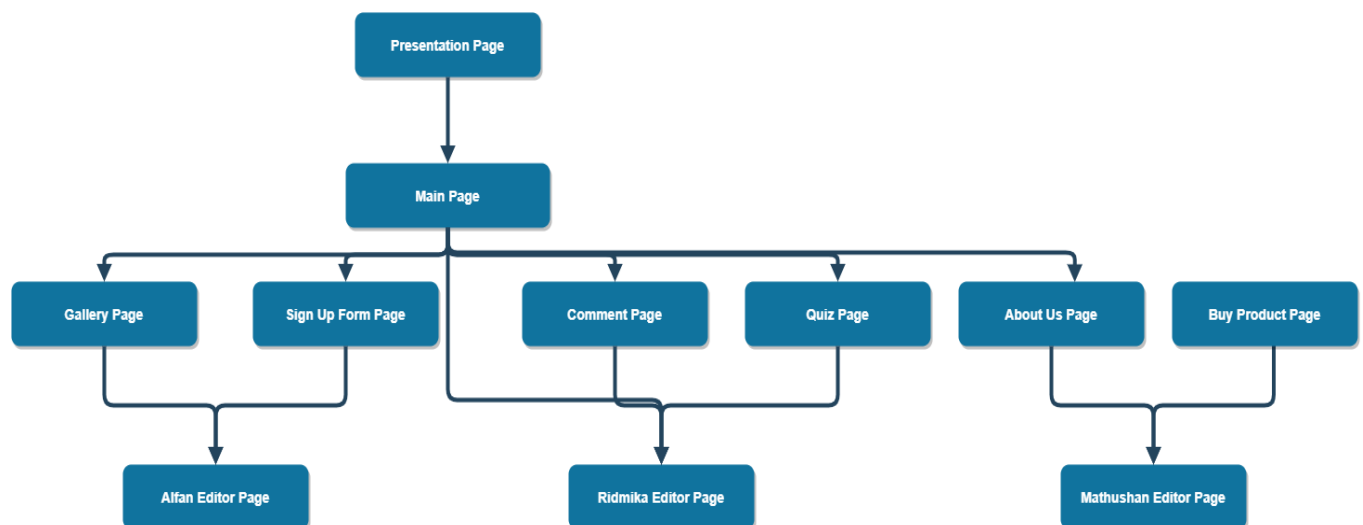
Images play a main part in this page for the users and it makes the page actively for the screen readers

### Form Accessibility:

We used form tags around input tags to have better accessibility in all the forms we created for our website.

```
<form name="myform" method="post" action="abc.jsp" onsubmit="return validateform()">  
  Name : <input type="text" name="name"><br />
```

## 4.6 Site Diagram



## 5. Self-Reflection

### **Alfan Student 01**

Our team did a fantastic job in bringing out our website to life. Even though we stumbled upon several barriers in reaching our goals, including one of our group members leaving mid-semester, we fulfil the requirements of this coursework.

One other problem we faced was how to keep all our work in sync and slowly build up in a very organized manner. As website began to take its basic form, we knew that our traditional ways of working on our own and then later integrating would not work. Therefore, we began to have regular meetings on zoom where one member codes live while the others send them the code segments of their tasks and together, we would work to integrate the codes. On a personal note, this project helped us improve our skills and build additional ones too. We were able to work as a team and get a small glimpse into what real Web developers undergo to create a website.

### **Ridmika Student 02**

I and my group members met via Zoom a few days after the coursework was released to read it together. We assigned student roles after a detailed discussion of the given requirements. One of our group members left in the middle of the semester, then it became a big challenge for us. We assigned student roles again after that member left.

Another challenge was that this group work had to be done online. However, we faced that. We improve our knowledge through this group work. We did a lot of discussions, and we did this in collaboration with each other.

### **Mathushan Student 03**

The task at hand was a challenging one given the fact that my team members and I have never met in person due to the ongoing pandemic. However, we were able to work together. We had so many commitments but everyone in the group was very supportive and help me a lot in this course work and also it was most certainly a unique experience as I have previously never been involved with web design.

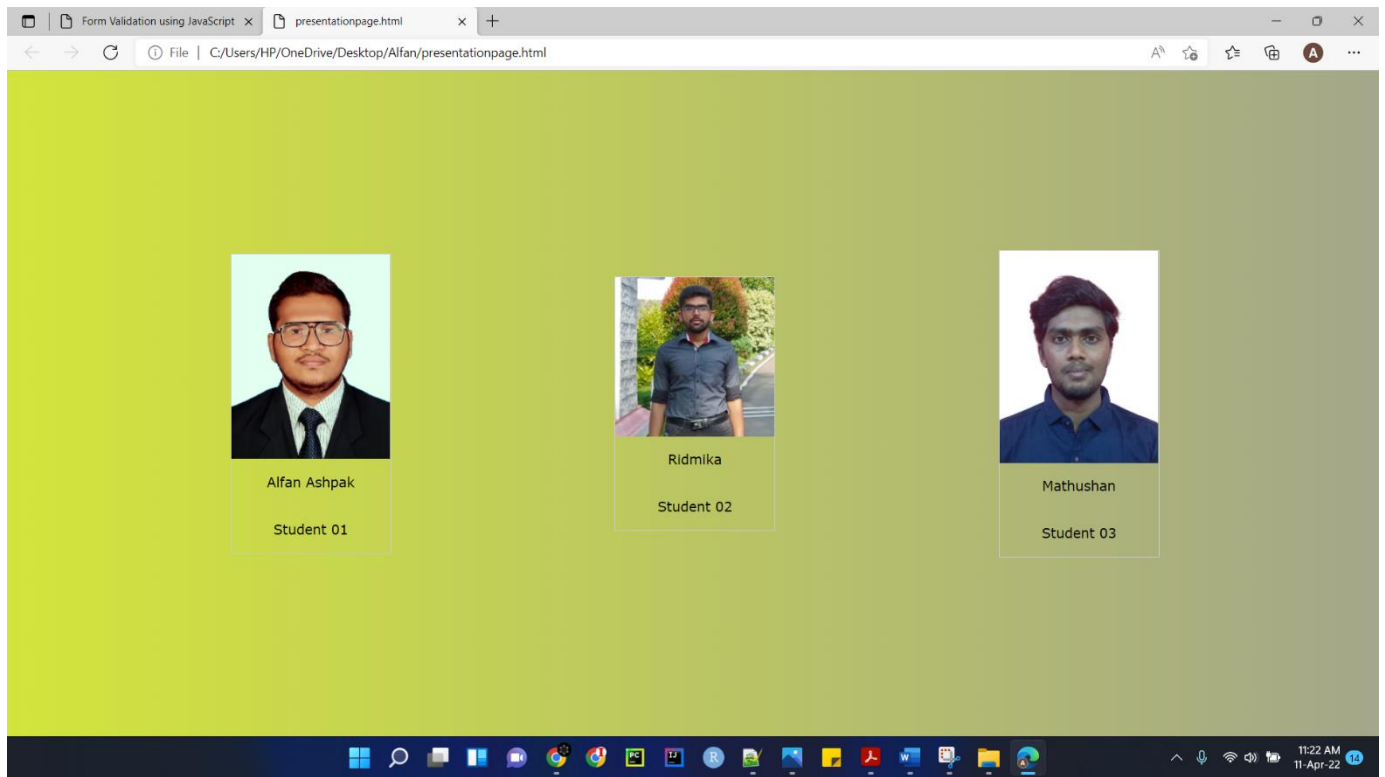
## 6. References

<https://www.w3schools.com/>

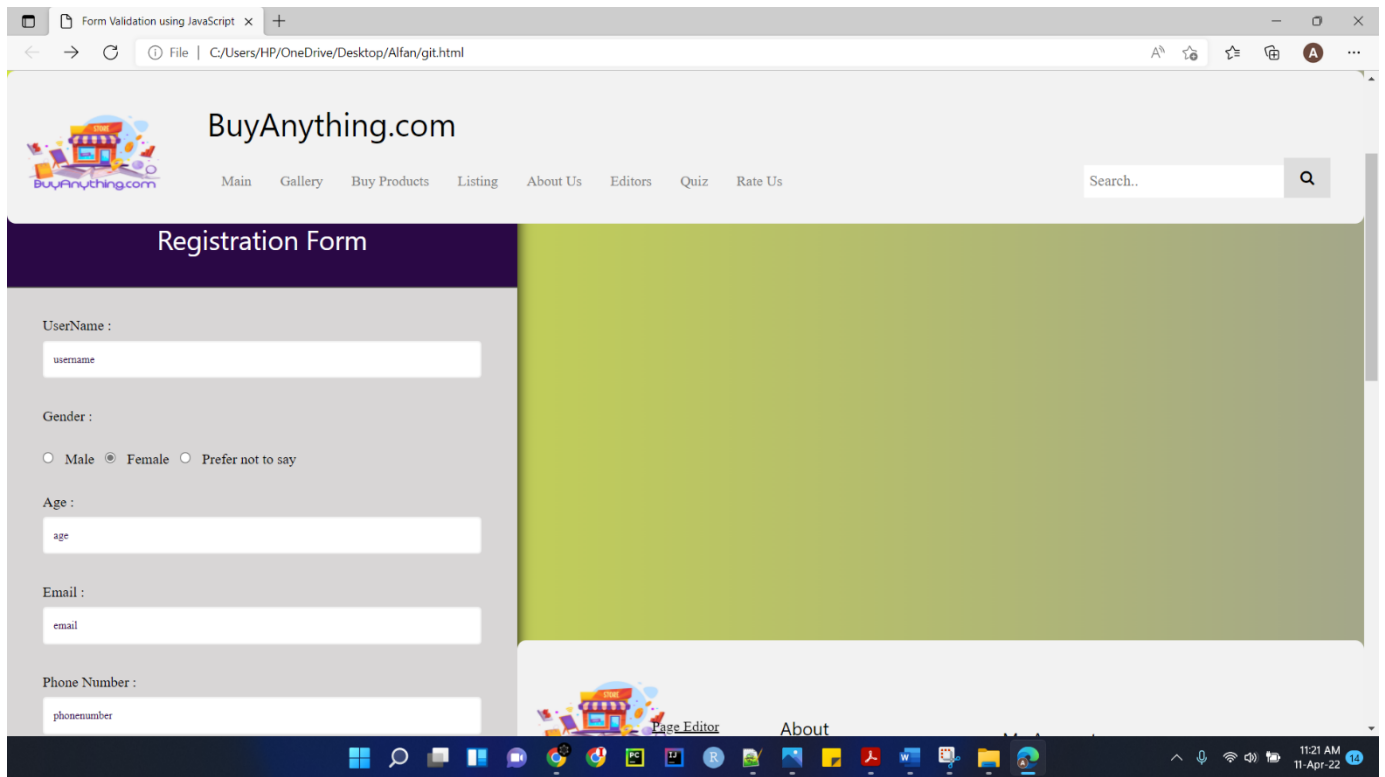
### Appendix: Screenshots

#### **Alfan Student 01 Screenshots**

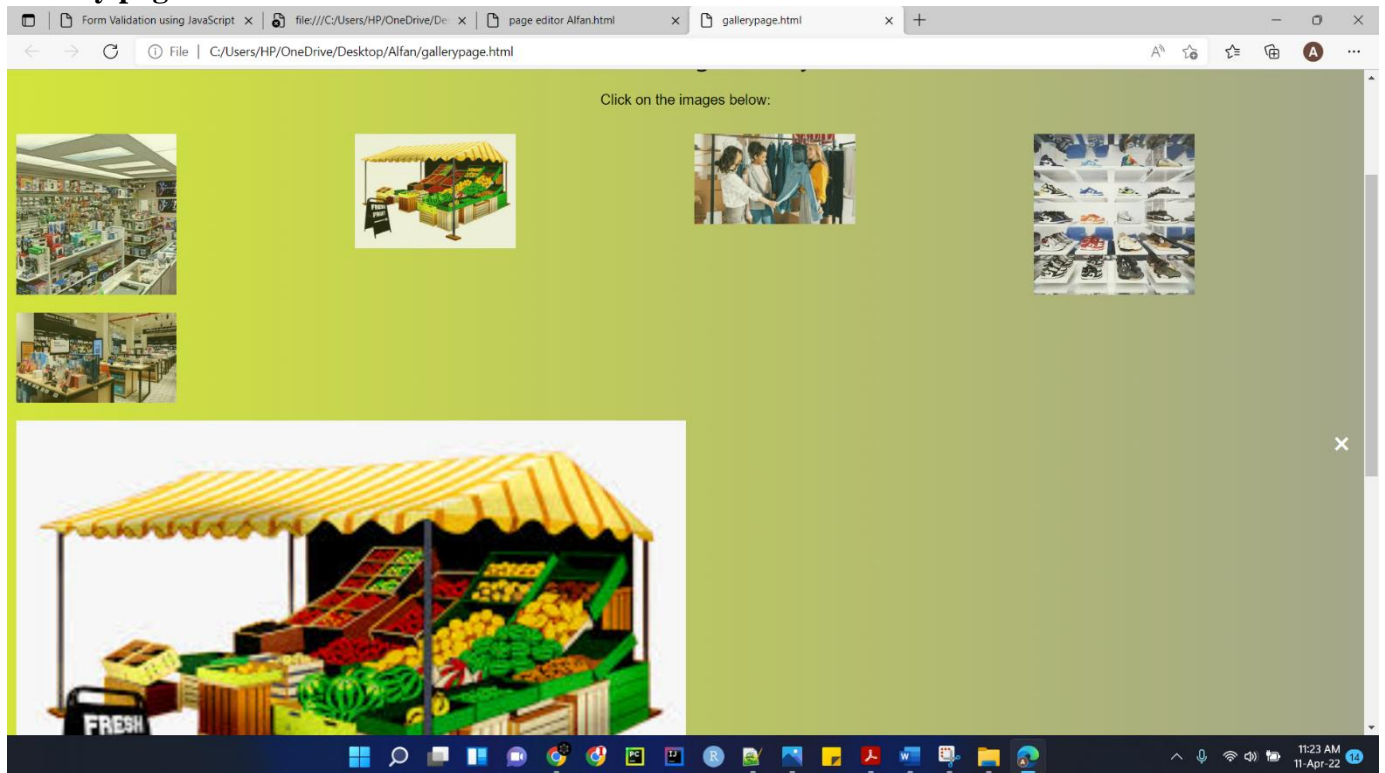
##### **Presentation page**



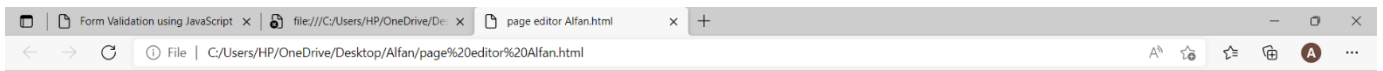
Registration sign up form



## Gallery page



## Page editor page



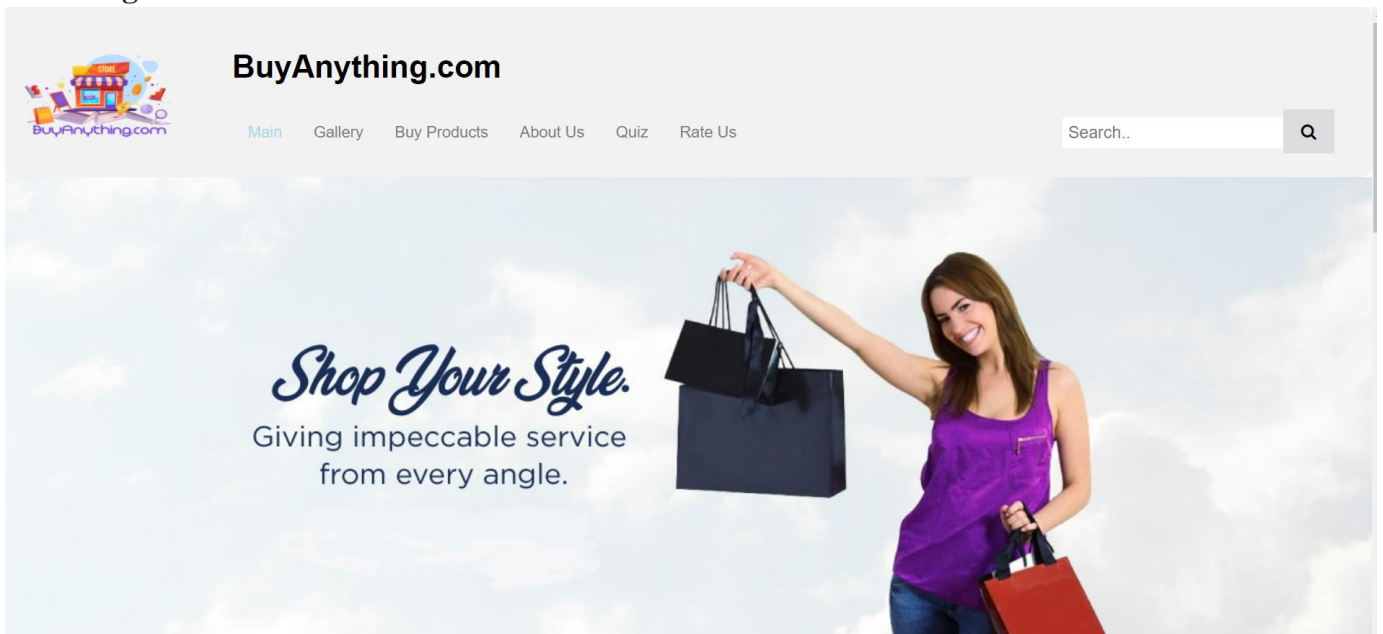
## Alfan Ashpak Student 01

I am now Following a Bachelor's Degree Artificial Intelligence And Data Science. My passion for the field of Artificial intelligence has often fuelled me to explore and educate myself on the branches of Machine learning, Neural language processing, Deep Learning and Computer Vision



## Ridmika Student 02 Screenshots

### Main Page





## Trailer of a success story



## Bank Discounts

**Save up to 12%**

Up to 60 month installment plans at 0%

**Save up to 12%**

Up to 60 month installment plans at 0%



### Contact

**Address:** 57 Ramakrishna Rd, Colombo

**Phone:** +94 766 760 760 / +94 766 760 760

**Hours:** 9.00 - 18.00, Mon - Fri

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### About

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[Delivery Information](#)  
[Privacy Policy](#)  
[Terms & Condition](#)  
[Contact Us](#)  
[More information about page editor](#)


### My Account

[Sign In](#)  
[View Cart](#)  
[My Wishlist](#)  
[Track My Order](#)  
[Help](#)

### Secured Payment Gateways



## Comment Page

[Main](#)[Gallery](#)[Buy Products](#)[Listing](#)[About Us](#)[Editors](#)[Quiz](#)[Rate Us](#)

Search..

Q

Add your ideas to improve us...

Name

Your name..

Email

Your email..

Comment

★

★

★


★

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## Editor Page



## **Ridmika Hasaranga Student 02**

I am now Following a Bachelor's Degree Artificial Intelligence And Data Science in Robert Gordon University. My interest in artificial intelligence has encouraged me to explore and educate myself in areas such as machine learning, neural language processing, deep learning, and computer vision.

## **Mathushan Student 03 Screenshots**

# Mathushan Manorangithan

## Student 03

I'm a student of Infomatics Institute of Technology(IIT) who is studying Artificial intelligence and data science  
Artificial intelligence is a feild I am immensely in and willing to seek a career in..



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