

Creating Web Application

COS10011

Semester 2, 2022

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Assignment 1 (FastCar Rental Website)

Introduction

The website is a car rental website especially for sportscars. The website is created for customers who are interested to experience the feel of a sportscar to rent one. The objective is to satisfy the customers desire to have a gist of owning a sportscar.

Scope of the website

The user rents a car of his/her choice for a month and if interested can purchase the vehicle.

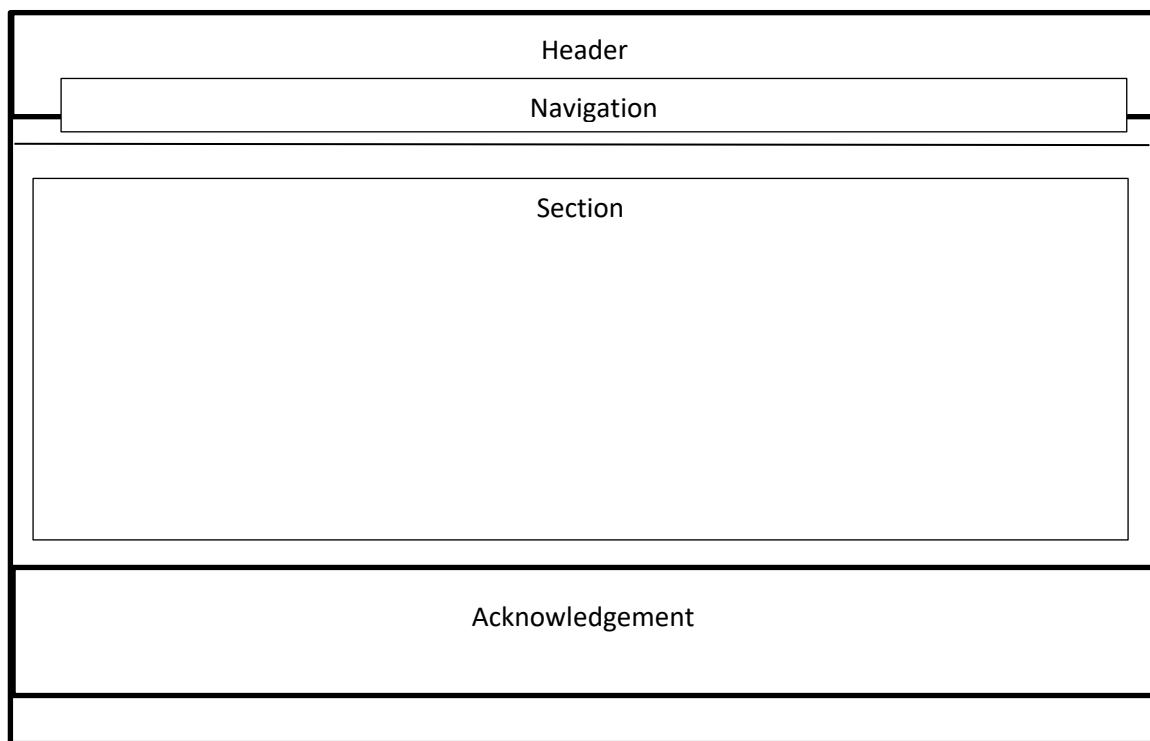
The financial transaction is either performed online or in person.

Intended audience

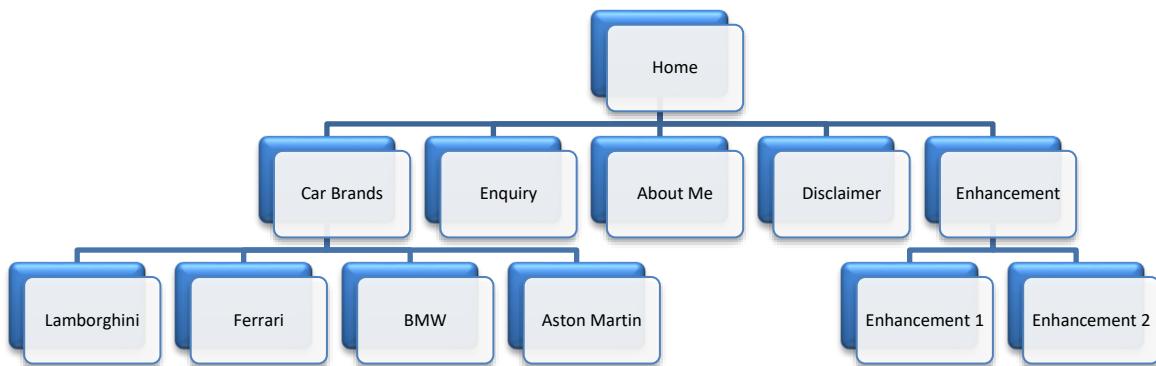
The audience is the general public especially those who are interested in renting a sportscar or who has interest in sportscar.

Webpage Design and Structure

Website Layout Mock ups



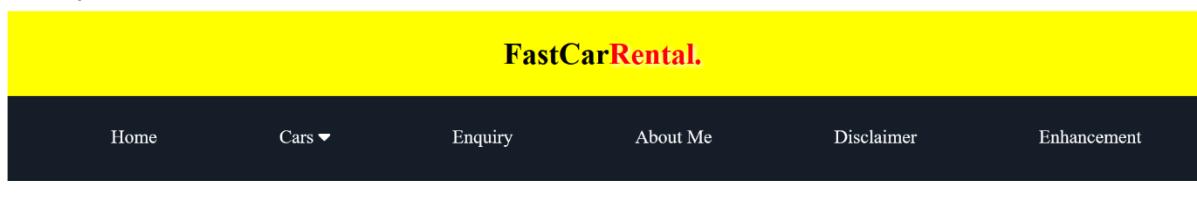
Website Structure



End Product

Actual User Interface

Index/Home



Rent now for the **Best Experience** of a **SPORTSCAR**



Figure 1: Home page 1

RENT NOW

Below is a short video of sportscars racing. Please Enjoy but most importantly **DRIVE RESPONSIBLY**

Blender car race animation - FaZe5 Top... Watch later Share

Watch on YouTube

Fast Car Rental

[Home](#)
[Enquiry](#)
[About Me](#)
[Disclaimer](#)
[Enhancement](#)

Car Brands

Lamborghini
Aston Martin
BMW
Ferrari

Contacts

Phone:
+600167490134

Location

Viva Mall Ground Floor, Kuching , Sarawak, Malaysia

Figure 2: Home page 2

Watch on YouTube

Fast Car Rental

[Home](#)
[Enquiry](#)
[About Me](#)
[Disclaimer](#)
[Enhancement](#)

Car Brands

Lamborghini
Aston Martin
BMW
Ferrari

Contacts

Phone:
+600167490134
Email:John JAVAPRO

Location

Viva Mall Ground Floor, Kuching , Sarawak, Malaysia

Acknowledgment

FastCar Rental would extend its gratitude to acknowledge the following websites for contributing to the completion of this website, by using their information and data.

Lamborghini

Youtube

Figure 3: Home page 3

About Me

FastCarRental.

Home Cars ▾ Enquiry About Me Disclaimer Enhancement

About Me



Figure 4: About Me 1

John Baptist Matambuai JAVAPRO

101233221

I am currently enrolled under the course **Bachelor of Robotics and Mechatronics Engineering**. This website is created to fulfilled the requirements of the assessment from the Unit COS10011 Creating Web Application given by my lecturer, Mrs. Choo Ai Ling.

Age	23
Date of Birth	6 June 1999
Country	Papua New Guinea
City	Port Moresby
Home town	Port Moresby is the capital of Papua New Guinea. Papua New Guinea is a country of multicultural groups, there is approximately 800 different languages spoken in PNG. Papua New Guinea is on the eastern side of the island of New Guinea while Jakarta is on the western side.
Hobbies	My hobbies are: <ul style="list-style-type: none">• Reading• Playing Rugby• Socialising

Below is a google map embedded into the website for you to

Figure 5: About Me 2

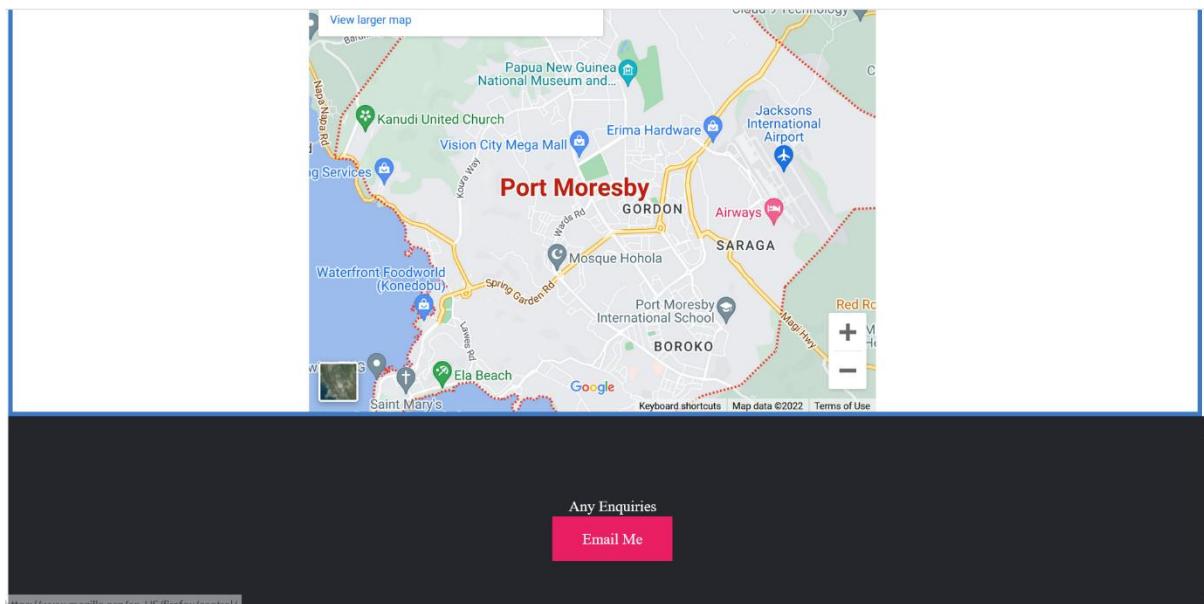


Figure 6: About Me 3

Enquiry

The screenshot shows a web page for 'FastCarRental.' with a yellow header and a black navigation bar. The navigation bar includes links for Home, Cars ▾, Enquiry, About Me, Disclaimer, and Enhancement. Below the navigation is a section titled 'ENQUIRY DETAILS' containing a form for 'Personal Details'. The form fields include 'First Name' (No Space required), 'Last Name' (No space required), 'Date of Birth' (mm / dd / yyyy), and 'Email' (youremail01@gmail.com). There is also a small input field at the bottom.

ENQUIRY DETAILS

Personal Details

First Name:

Last Name:

Date of Birth:

Email:

Figure 7: Enquiry 1

	Phone: <input type="text" value="Your Phone Number"/>
	Address
	Street Address: <input type="text" value="Your Street Address"/>
	City/Town: <input type="text" value="Name of your City/Town"/>
	State: <input type="text" value="Name of your state"/>
	PostCode: <input type="text" value="Example:93350"/>
	Service Enquiry
	Car Brands: <input style="width: 100px;" type="text" value="Lamborghini"/>
	Satisfaction Level
	Rate your experience
	<input checked="" type="radio"/> Excellent <input type="radio"/> Good <input type="radio"/> Fair <input type="radio"/> Not Good

Figure 8: Enquiry 2

	Today's Date <input type="text" value="mm / dd / yyyy"/>			
	Time <input type="text" value="-- : -- : --"/>			
	<input style="background-color: red; color: white; border: none; padding: 2px 10px; margin-right: 5px;" type="button" value="Register"/> <input style="background-color: red; color: white; border: none; padding: 2px 10px;" type="button" value="Reset"/>			
Fast Car Rental Car Brands Contacts Location				
Home Enquiry About Me Disclaimer Enhancement		Lamborghini Aston Martin BMW Ferrari	Phone: +600167490134 Email: John JAVAPRO	Viva Mall Ground Floor, Kuching , Sarawak, Malaysia

Figure 9: Enquiry 3

Services



Figure 10: Service 1

Lamborghini

After World War II, Lamborghini founded a business making tractors from reconfigured surplus military machines, near Bologna, Italy. He later expanded into other ventures, including manufacturing air-conditioning and heating systems, and grew rich. Lamborghini's success enabled him to purchase a variety of luxury sports cars, including a Ferrari, considered one of the top cars of the time. After experiencing mechanical difficulties with his Ferrari, Lamborghini decided to start his own rival sports car company, even hiring a former top Ferrari engineer. Automobili Lamborghini was officially established in 1963 in Sant'Agata Bolognese, Italy, and the same year debuted its first car, the Lamborghini 350 GTV, a two-seater coupe with a V12 engine.



Lamborghini Aventador

<https://www.shoofly.com/mv/b10d/start-online-store>

Figure 11: Service 2

Here are the technical specifications of the new Veneno: with a 6.5 liter aspirated V12 engine and a top speed of 355 km/h, this Lamborghini concept car represents state-of-the-art design inspired by aeronautics, capable of giving you the indescribable feeling of flying on the road. Faithful to the Lamborghini lines, the Veneno is characterized by extreme proportions, emerging in the forceful arrow-shaped front as well as alternating razor-sharp lines and sleek, tight surfaces.

Acknowledgment

FastCar Rental would extend its gratitude to acknowledge the following websites for contributing to the completion of this website, by using their information and data.

[History](#) [Lamborghini](#) [MR Collection](#) [Instagram](#)

Figure 12: Service 3

Enhancements 1

The Fa caret down icon

It is an icon that is displayed next to the car navigation link indicating to the user that there is a drop menu available. Basically, it is an icon that like an arrowhead which is pointing down.

FastCarRental.

Cars ▾ Enquiry About Me Disclaimer Enhancement

Lamborghini
Aston Martin
BMW
Ferrari

now for the **Best Experience** of a **SPORTSCAR**



Figure 13: Fa fa caret down Enhancement

The source code from which the icon is created is below with open and closing `<i></i>` that is in the home page navigation link.

```
<a href="#">Cars <i class="fas fa-caret-down"></i></a>
```

The icon code is activated with the source code taken from the the css website with the link code of

```
<link rel="stylesheet" href="https://cdnjs.cloudflare.com/ajax/libs/font-awesome/6.2.0/css/all.min.css" />
```

Page Implementation: The page implementation of this enhancement is on the Car navigation section on the top of the screen.

Citation: The idea of this enhancement is taken from the website

https://www.w3schools.com/icons/tryit.asp?filename=tryicons_fa-caret-down

YouTube Video

The YouTube was embedded to the website to give the user the excitement and attract their attention to renting out our cars. The YouTube video is about sportscar that are racing to prove who is the best. The YouTube video is placed in the home page of the website.

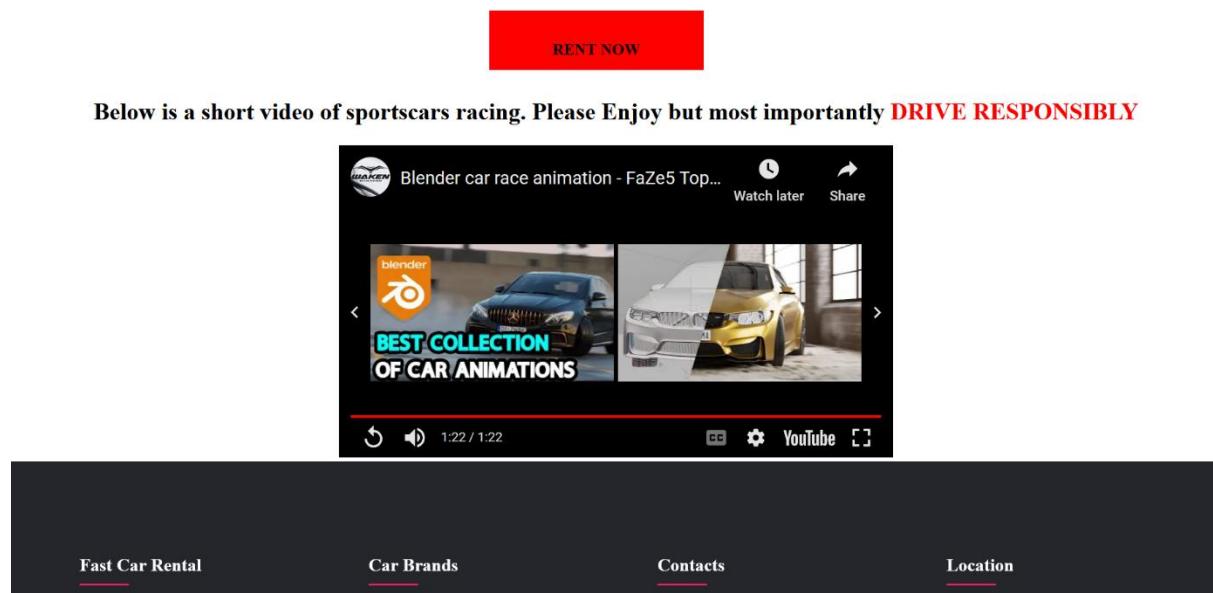


Figure 14: YouTube Video Enhancement

The source code that was used to embed the YouTube video is

```
<iframe width="560" height="315"
src="https://www.youtube.com/embed/TpM6YNILLFY" title="YouTube video player"
frameborder="0" allow="accelerometer; autoplay; clipboard-write;
encrypted-media; gyroscope; picture-in-picture"
allowfullscreen></iframe>
```

Page Implementation:

- Home Page

Citation: The idea of this enhancement was taken from the YouTube video

<https://www.youtube.com/watch?v=9YffrCViTvk>

Google Map

The google map was provided so that the user could see where exactly the owner is from. The Google map is a web service that provides precise and detailed information about a location or area geographically. The Google map is embedded on the About Me page.

look up where exactly is Papua New Guinea

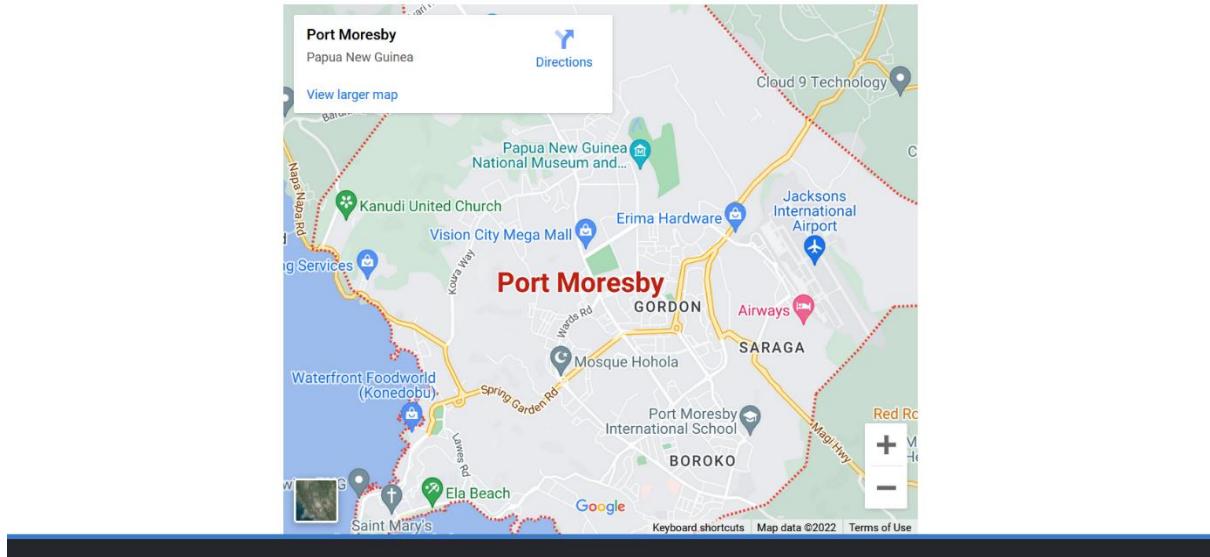


Figure 15: Google Map Enhancement

The source code that is used to embed the google map is

```
<div class="mapouter">
    <div class="gmap_canvas"><iframe width="600" height="500"
id="gmap_canvas"
src="https://maps.google.com/maps?q=Port%20Moresby,Pap
ua%20New%20Guinea&t=&z=13&ie=UTF8&iwloc=&output=embed"
frameborder="0" scrolling="no" marginheight="0"
marginwidth="0"></iframe><a
    href="https://putlocker-is.org"></a><br>
<style>
.mapouter {
    position: relative;
    text-align: right;
    height: 500px;
    width: 600px;
}
</style><a href="https://www.embedgooglemap.net">how to
add a map to wordpress</a>
<style>
.gmap_canvas {
    overflow: hidden;
    background: none !important;
    height: 500px;
    width: 600px;
}
```

```

        }
    </style>
</div>
</div>

```

Page Implementation:

- About page

Citation: The idea of this enhancement was taken from a YouTube video

<https://www.youtube.com/watch?v=inkP0lstoxU>

Dropdown Menu

The dropdown menu is placed so that user could navigate through to the car models to select which they prefer. The dropdown menu is place in the navigation bar of all the pages on the website.

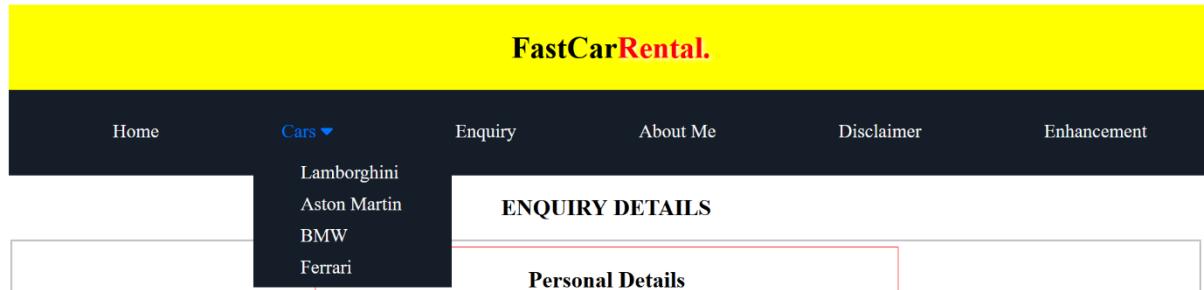


Figure 16: Dropdown Menu Enhancement

The source code that is used to create the drop-down menu is

```

<div class="drop_menu">
    <ul>
        <li><a href="lamborghini.html">Lamborghini</a></li>
        <li><a href="astonmartin.html">Aston Martin</a></li>
        <li><a href="bmw.html">BMW</a></li>
        <li><a href="ferrari.html">Ferrari</a></li>
    </ul>
</div>

```

Page Implementation:

- Cars page

Citation: The idea of this enhancement was taken from the website

https://www.w3schools.com/css/css_dropdowns.asp

Assignment 2 (Javascript)

Description of Javascript Implementation

The Javascript was implemented to carry out two vital roles for the website and that is to transfer data between pages and transfer of data within a page. The other important role that Javascript is implemented is to validate the enquiry form and storing the States into an array.

Transfer Between Pages

For this part the Javascript was implemented for the purpose to aid in the transferring of data from the service page of the four categories of the service page to the enquiry form automatically also referring the user to the enquiry page. When the user is in the service page and wants to enquire for a product then user will click the RENT NOW button that is under the respective product. Thus, the product data will automatically be sent to the enquiry page form and in the subject field it will be displayed.

HTML CODE

```
<fieldset>
  <div class="Spage">
    
    <h2>Aston Martin V8 Vantage Coupe</h2>
  </div>

  <div class="Apage">
    <p>The Vantage, the least expensive Aston Martin (the base version still goes for more than $100,000) is equipped with a 6.0L, 565-horsepower V12, which can be paired with a seven-speed manual gearbox! This year, the 4 V8 is not offered in Canada. Less modern than the Porsche 911 or Audi R8, the Vantage has the advantage—did you see what we did there?—of having a style that is at once inimitable and classic.</p>
  </div>
  <div class="dropdown">
    <button class="dropbtn" onclick="storeitem('Aston Martin V8 Vantage')">RENT NOW!</button>
  </div>
</fieldset>
```

This is basically a single product under the service page. There are about four products in each four categories of services resulting in 16 similar HTML code like the one display above.

JAVASCRIPT CODE

```
function storeitem(item_id) {
  sessionStorage.setItem("item_id", item_id);
  window.location.replace("enquiry.html");
}
function displayitem() {
  document.getElementById("subject").value = "RE: Enquiry on " + sessionStorage.getItem("item_id");
}
```

When the RENT NOW button is clicked in the html page the data from the product is then sent to the *storeitem* function and is stored in the *sessionStorage*. Then, the data from the *sessionStorage* is called by the *displayitem* function and is then stored in in the subject's input field.

Transfer Within Pages

For this part the Javascript was implemented for the purpose to aid in the transferring of data within the same page which is the enquiry page. The products are listed in arrays using the Javascript and is displayed in a dropdown form. Thus, when a product is selected in the dropdown list the data is then displayed in the Subject Input field.

HTML CODE

```
<div class="service">
  <h2>Service Enquiry</h2>
  <p><label>Subject</label><input type="text" name="subject" id="subject" size="50px"></p>
  <p><label>Car Brands:</label>
    <select name="product" id="product" onchange="change()">
      <optgroup label="Lamborghini">
        |   <script>productlist1()</script>
      </optgroup>
      <optgroup label="Aston Martin">
        |   <script>productlist2()</script>
      </optgroup>
      <optgroup label="BWM">
        |   <script>productlist3()</script>
      </optgroup>
      <optgroup label="Ferrari">
        |   <script>productlist4()</script>
      </optgroup>
    </select>
  </p>
</div>
```

This how the products are structured in the html code for the page.

JAVASCRIPT CODE

```

function productlist1() {
    var select = document.getElementById("product");

    var options = ["Aventador", "Centenario", "Huracan", "Venenos"];

    for (var i = 0; i < options.length; i++) {
        var opt = options[i];
        var el = document.createElement("option");
        el.textContent = opt;
        el.value = opt;
        select.appendChild(el);
    }
}

function productlist2() {
    var select = document.getElementById("product");

    var options = ["V8 Vantage Coupe", "Valkyrie", "DB11 Covertible 2021", "Vulcan"];

    for (var i = 0; i < options.length; i++) {
        var opt = options[i];
        var el = document.createElement("option");
        el.textContent = opt;
        el.value = opt;
        select.appendChild(el);
    }
}

function productlist3() {
    var select = document.getElementById("product");

    var options = ["2 Series", "8 Series", "M8", "M5"];

    for (var i = 0; i < options.length; i++) {
        var opt = options[i];
        var el = document.createElement("option");
        el.textContent = opt;
        el.value = opt;
        select.appendChild(el);
    }
}

function productlist4() {
    var select = document.getElementById("product");

    var options = ["488 Pista", "812GTS", "F12", "Portofino"];

    for (var i = 0; i < options.length; i++) {
        var opt = options[i];
        var el = document.createElement("option");
        el.textContent = opt;
        el.value = opt;
        select.appendChild(el);
    }
}

```

Basically, the products are amended into an array with the aid of the Javascript. Thus, there are four products resulting in four arrays created to cater for the products. Once the user clicks on the dropdown, the products will be listed in a dropdown format.

```

function displayitem() {
    document.getElementById("subject").value = "RE: Enquiry on " + sessionStorage.getItem("item_id");
}

```

For the display function, after the user selects the product the product date will be stored using the sessionStorage and the data will be displayed in the Subject input field respectively.

Validation of Enquiry Form

The Javascript is implemented for the sole purpose of validating the enquiry form. When user input a data for example if the First Name entered is not alpha character the Javascript will check and display an error and if the length of characters exceeds 25 and error will also be displayed.

HTML CODE

```

<section id="enquiryform">
    <h1>ENQUIRY DETAILS</h1>
    <fieldset id="enquirysec">
        <form id="detail" method="POST" novalidate="novalidate" action="/" enctype="text/plain">
            <div class=" PersonalDetails">
                <h2>Personal Details</h2>
                <label for="fname">First Name:</label><input type="text" id="fname" name="fname"
                    placeholder="No Space required"><br>
                <label for="lname">Last Name:</label><input type="text" id="lname" name="lname"
                    placeholder="No space required"><br>
                <p><label>Date of Birth
                    <input type="date" name="bday" id="dob">
                </label></p>
                <label for="femail">Email:</label><input type="text" id="femail" name="femail"
                    placeholder="youremail01@gmail.com"><br>
                <label for="Phone">Phone:</label><input type="text" id="Phone" name="Phone"
                    placeholder="Your Phone Number"><br>
            </div>
            <div class="address">
                <h2>Address</h2>
                <label for="Sname">Street Address:</label><input type="text" id="sname" name="sname"
                    placeholder="Your Street Address"><br>
                <label for="Cityname">City/Town:</label><input type="text" id="cname" name="cname"
                    placeholder="Name of your City/Town"><br>
                <label for="statename">State:</label><select id="myList" onchange="favTutorial()">
                    <optgroup label="State">
                        <script>states()</script>
                    </optgroup>
                </select><br>
                <label for="postCode">PostCode:</label><input type="text" id="postCode" name="postCode"
                    placeholder="Example:93350"><br>
            </div>
            <div class="service">

```

```

</div>
<div class="service">
    <h2>Service Enquiry</h2>
    <p><label>Subject</label><input type="text" name="subject" id="subject" size="50px"></p>
    <p><label>Car Brands:</label>
        <select name="product" id="product" onchange="change()">
            <optgroup label="Lamborghini">
                <script>productlist1()</script>
            </optgroup>
            <optgroup label="Aston Martin">
                <script>productlist2()</script>
            </optgroup>
            <optgroup label="BWM">
                <script>productlist3()</script>
            </optgroup>
            <optgroup label="Ferrari">
                <script>productlist4()</script>
            </optgroup>
        </select>
    </p>
</div>
<div class="levels">
    <h2>Satisfaction Level</h2><br>
    <p>
        <div id="div1" class="fa"></div>
    </p>
    <p>Rate your experience <br />
        <label><input type="radio" name="rating" value="Excel" id="E" /> Excellent</label>
        <label><input type="radio" name="rating" value="Good" id="G" /> Good</label>
        <label><input type="radio" name="rating" value="Fair" id="F" /> Fair</label>
        <label><input type="radio" name="rating" value="Not Good" id="NG" /> Not Good</label>
    </p>
    <p><label>Comment about Service<br><br>

```

```

        <optgroup label="BWM">
            <script>productlist3()</script>
        </optgroup>
        <optgroup label="Ferrari">
            <script>productlist4()</script>
        </optgroup>
    </select>
</p>
</div>
<div class="levels">
    <h2>Satisfaction Level</h2><br>
    <p>
        <div id="div1" class="fa"></div>
    </p>
    <p>Rate your experience <br />
        <label><input type="radio" name="rating" value="Excel" id="E" /> Excellent</label>
        <label><input type="radio" name="rating" value="Good" id="G" /> Good</label>
        <label><input type="radio" name="rating" value="Fair" id="F" /> Fair</label>
        <label><input type="radio" name="rating" value="Not Good" id="NG" /> Not Good</label>
    </p>
    <p><label>Comment about Service<br><br>
        <textarea name="comments" rows="4" cols="20" placeholder="Enter comment here">
            <input type="submit" value="submit">
            <input type="reset" value="reset" onclick="resetThings()">
        </p>
    </div>
</br></br>
</form>
</fieldset>

```

This is how the html code is constructed and implemented

JAVASCRIPT CODE

```
window.onload = init;

function validateForm() {
    "use strict"; //directive to ensure variables are declared
    var isAllOK = false;
    gErrorMsg = ""; //reset error message
    var nameOK = chkFirstName();
    var lnameOK = chkLastName();
    var dobOK = chkDob();
    var emailOK = chkEmail();
    var phoneOK = chkPhone();
    var streetOK = chkStreet();
    var cityOK = chkCity();
    var stateOK = chkState();
    var postOK = chkPost();
    var subOK = chkSubject();
    var rateOK = chkRate();
    var commentOK = chkComment();
    if ((nameOK && lnameOK && emailOK && dobOK && phoneOK && streetOK && cityOK && stateOK && postOK && subOK && rat
        isAllOK = true;
        if (isAllOK == true) {
            alert("Enquiry Successful");
        }
    }

    else {
        alert(gErrorMsg); //display concatenated error messages
        gErrorMsg = ""; //reset error msg
        isAllOK = false;
    }
    return isAllOK;
}
```

The validation function starts here then it calls out individual function for the specific field names in the enquiry forms.

```
function chkFirstName() {
    var fname = document.getElementById("fname").value;
    var pattern = /^[a-zA-Z ]+$/ //check only alpha characters or space
    var nameOk = true;
    if ((fname.length == 0)) { //same as owner==""
        gErrorMsg = gErrorMsg + "Your First Name cannot be blank\n"
        nameOk = false; //if condition or clause complex more readable if branches on separate lines
    }
    if ((fname.length > 25)) { //same as owner==""
        gErrorMsg = gErrorMsg + "Firstname characters has a max of 25\n"
        nameOk = false; //if condition or clause complex more readable if branches on separate lines
    }

    if (!nameOk) {
        document.getElementById("fname").style.borderColor = "red";
    }
    else {
        if (!pattern.test(fname)) {
            gErrorMsg = gErrorMsg + "Your First Name must only contain alpha characters\n"
            var nameOk = false; //if condition or clause complex more readable if branches on separate lines
        }
    }
    return nameOk;
}
```

```

function chkLastName() {
    var lname = document.getElementById("lname").value;
    var pattern = /^[a-zA-Z ]+$/ //check only alpha characters or space
    var lnameOk = true;
    if ((lname.length == 0)) { //same as owner==""
        gErrorMsg = gErrorMsg + "Your Last Name cannot be blank\n"
        lnameOk = false; //if condition or clause complex more readable if branches on separate lines
        document.getElementById("lname").style.borderColor = "red";
    }
    if ((lname.length > 25)) { //same as owner==""
        gErrorMsg = gErrorMsg + "Last name characters has a max of 25\n"
        lnameOk = false; //if condition or clause complex more readable if branches on separate lines
        document.getElementById("lname").style.borderColor = "red";
    }
    if (!lnameOk) {
        document.getElementById("lname").style.borderColor = "red";
    }
    else {
        if (!pattern.test(lname)) {
            gErrorMsg = gErrorMsg + "Your Last Name must only contain alpha characters\n"
            var lnameOk = false; //if condition or clause complex more readable if branches on separate lines
            document.getElementById("lname").style.borderColor = "red";
        }
    }
}

return lnameOk;
}

```

```

function chkEmail() {
    var email = document.getElementById("femail").value;
    var emailOK = true;
    var pattern = /[a-z0-9._%+-]+@[a-z0-9.-]+\.[a-z]{2,}$/,
    if ((email.length == 0)) {
        gErrorMsg = gErrorMsg + "Please Enter Your Email\n"
        document.getElementById("femail").style.borderColor = "red";
        emailOK = false;
    }
    if (!emailOK) {
        document.getElementById("femail").style.borderColor = "red";
    }
    else {
        if (!pattern.test(email)) {
            emailOK = false;
            gErrorMsg = gErrorMsg + "Enter a valid email address\n"
            document.getElementById("femail").style.borderColor = "red";
        }
    }
}

return emailOK;
}

```

```

function chkDob() {
    var dobOK = true;
    var dob = document.forms["detail"]["bday"].value;
    if (dob == "") {
        gErrorMsg = gErrorMsg + "Please Select your Date of Birth\n";
        dobOK = false;
        document.forms["detail"]["bday"].style.borderColor = "red";
    }
    return dobOK;
}

function chkSubject() {
    var subOK = true;
    var sub = document.getElementById("subject").value;
    if (sub == "RE: Enquiry on null") {
        gErrorMsg = gErrorMsg + "Subject Can not be blank, Please select a car brand\n";
        subOK = false;
        document.getElementById("subject").style.borderColor = "red";
    }
    return subOK;
}

```

```

function chkPhone() {
    var phoneOK = true;
    var phone = document.getElementById("Phone").value;
    var pattern = /^[0-9]{10}$/;
    if (phone == "") { //same as owner==""
        gErrorMsg = gErrorMsg + "Please Enter your Phone Number\n";
        phoneOK = false;
        document.getElementById("Phone").style.borderColor = "red";
    }
    else {
        if (!pattern.test(phone)) {
            phoneOK = false;
            gErrorMsg = gErrorMsg + "Phone number must be 10 Digits\n";
            document.getElementById("Phone").style.borderColor = "red";
        }
    }
    return phoneOK;
}

function chkStreet() {
    var streetOK = true;
    var street = document.getElementById("sname").value;
    if (street == "") {
        gErrorMsg = gErrorMsg + "Please Enter Your Street Address\n";
        streetOK = false;
        document.getElementById("sname").style.borderColor = "red";
    }
    return streetOK;
}

```

```

function chkCity() {
    var cityOK = true;
    var city = document.getElementById("cname").value;
    if (city == '') {
        gErrorMsg = gErrorMsg + "Please Enter Your City/Town\n";
        cityOK = false;
        document.getElementById("cname").style.borderColor = "red";
    }
    return cityOK;
}

function chkPost() {
    var postOK = true;
    var post = document.getElementById("postCode").value;
    var pattern = /^[0-9]{5}$/;

    if (post == "") {
        gErrorMsg = gErrorMsg + "Please Enter Your Post Code\n";
        postOK = false;
        document.getElementById("postCode").style.borderColor = "red";
    }
    else {
        if (!pattern.test(post)) {
            postOK = false;
            gErrorMsg = gErrorMsg + "Postal Code number must be 5 Digits\n";
            document.getElementById("Phone").style.borderColor = "red";
        }
    }
    return postOK;
}

```

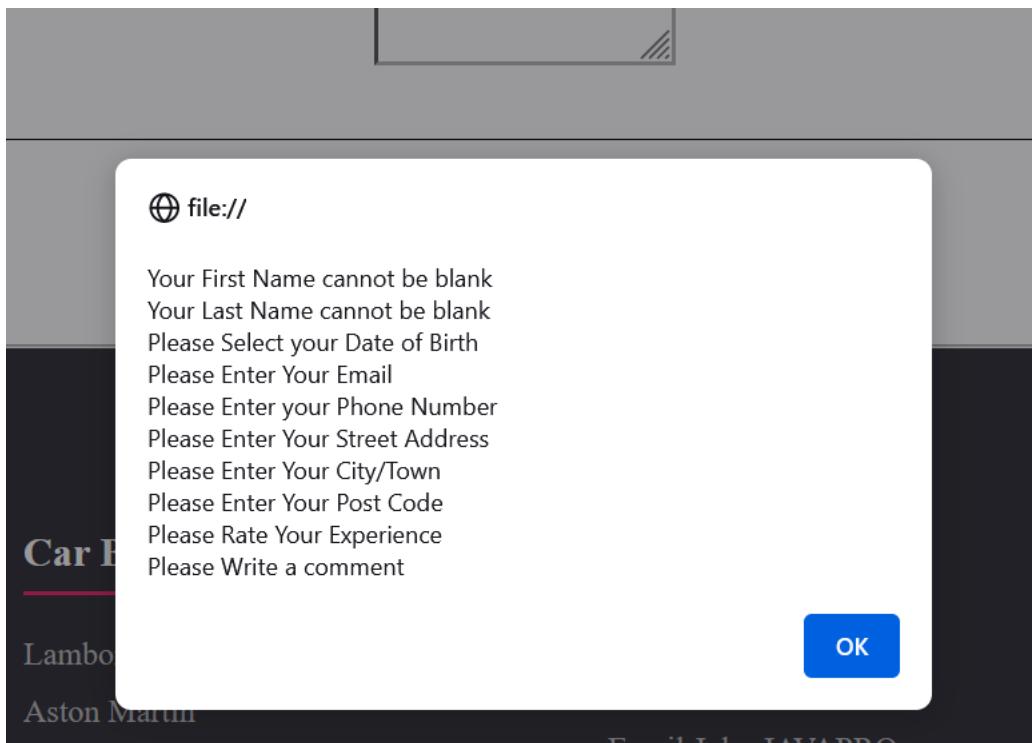
```

function chkRate() {
    var rateOK = false;
    var r1 = document.getElementById("E").checked;
    var r2 = document.getElementById("G").checked;
    var r3 = document.getElementById("F").checked;
    var r4 = document.getElementById("NG").checked;
    if (r1 || r2 || r3 || r4) {
        selected = true;
        //we haven't used {}. BE CAREFUL about adding extra lines}
    }
    else {
        rateOK = false;
        gErrorMsg = gErrorMsg + "Please Rate Your Experience\n";
    }
    return rateOK;
}

function chkComment() {
    var commentOK = true;
    var comment = document.getElementById("comment").value;
    if (comment == "") {
        gErrorMsg = gErrorMsg + "Please Write a comment\n";
        commentOK = false;
        document.getElementById("comment").style.borderColor = "red";
    }
    return commentOK;
}

```

Basically, the Javascript is implemented to check the inputted data and match against some of the rules and requirements and if the requirements are not met it displays a message and if there are multiple requirements not met the messages are concatenated into one message. Below is a Screenshot of the concatenated message.



That is the screenshot of the concatenated message.

End Product

Enhancement 2 (Javascript)

1. Red Border Line

The red outline is basically a colour that will distinguish the appearance of the input field indicating to the user that he/she may have forgotten to fill in the corresponding input field. Thus, when the user does not fill in the input field and when he/she click on the submit button the input fields border will turn to red. To reset that the user must click reset to make the red border go away.

The source code for the Red Border Line can be found below

Javascript

```
if (!nameOk) {  
    document.getElementById("fname").style.borderColor = "red";  
}  
}
```

The javascript will validate the field to see if it is empty or not, if the field is empty the red border line will be implemented.

Html

```
<input type="text" id="fname" name="fname"  
      placeholder="No Space required">
```

Page Implementation:

- Enquiry Page

Citation: The idea was taken from Assignment 2 resources uploaded on Canvas

SCREENSHOT OF THE ENHANCEMENT

ENQUIRY DETAILS

Personal Details	
First Name:	No Space required
Last Name:	No space required
Date of Birth	mm / dd / yyyy
Email:	youremail01@gmail.com
Phone:	Your Phone Number
Address	

This happens when the user clicks the submit button without filling in the required fields of data.

2. Scroll Back to Top Button

The Scroll to Top Button is basically a red button with a FA FA-CARET-UP icon in the middle that when you click it will take bring the webpage back to the top of the webpage again. The button will only appear when the user scrolls down from the webpage indicating to the user that if he/she wants to go up simply just clicked the button.

The source code for the Red Border Line can be found below

Javascript

```
function topFunction() {
    document.body.scrollTop = 0;
    document.documentElement.scrollTop = 0;
}
```

```

function scrollFunction() {
    let mybutton = document.getElementById("myBtn");
    if (document.body.scrollTop > 20 || document.documentElement.scrollTop >
20) {
        mybutton.style.display = "block";
    } else {
        mybutton.style.display = "none";
    }
}
window.onscroll = function () { scrollFunction() };

```

Css

```

#myBtn {
    display: none;
    position: fixed;
    bottom: 20px;
    right: 30px;
    z-index: 99;
    font-size: 18px;
    border: none;
    outline: none;
    background-color: red;
    color: white;
    cursor: pointer;
    padding: 15px;
    border-radius: 4px;
}

#myBtn:hover {
    background-color: #555;
}

```

Html

```

<button onclick="topFunction()" id="myBtn" title="Go to top"><i class="fa fa-caret-up"></i></button>

```

Page Implementation:

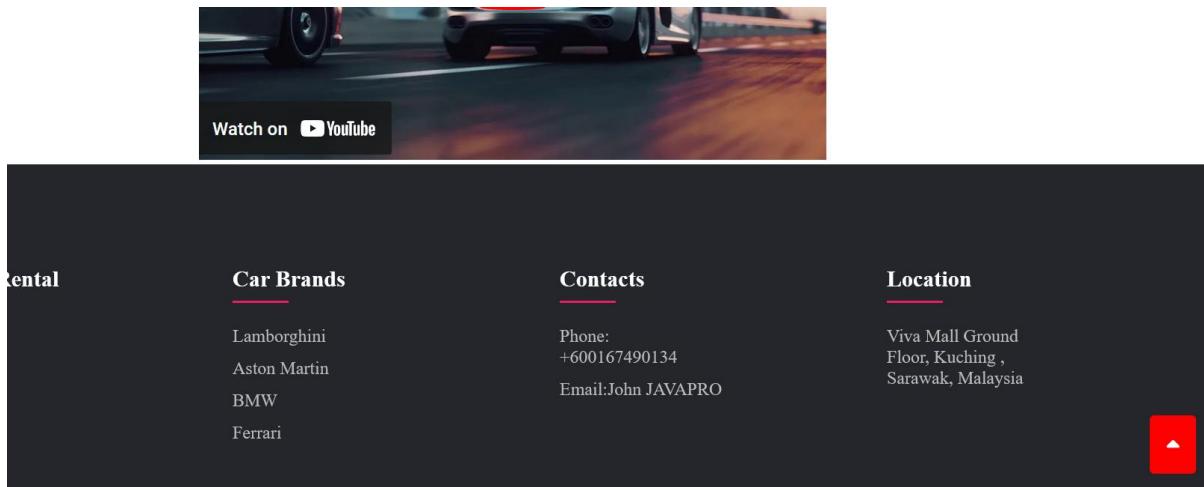
- Home
- Enquiry
- About
- Disclaimer
- Enhancement
- Lamborghini

- Aston Martin
- BMW
- Ferrari

Citation: The idea of the enhancement was taken from the website

https://www.w3schools.com/howto/howto_js_scroll_to_top.asp

SCREENSHOT OF THE ENHANCEMENT



The little RED BUTTON at the bottom right of the screenshot is the enhancement.

3. Display Date and Time

To view the date and time the viewer will just click on the View Date and Time button. The Date and time were displayed so that the user can know when he/she has is browsing through the page. The Date and time are displayed also for whenever the user needs to check the time, he/she could just look at it.

The source code for the Red Border Line can be found below

Html

```
<div id="worldtime">
    <h3>DISPLAY TIME</h3>
    <button onclick="DisplayDATE()">View Date & Time</button>
    <p>Time: <span id="datetime"></span></p>
    <p>Date: <span id="time"></span></p>
</div>
```

Javascript

```
function DisplayDATE() {
    var dt = new Date();
    document.getElementById("datetime").innerHTML = dt.toLocaleTimeString();
    document.getElementById("time").innerHTML = dt.toLocaleDateString();
}
```

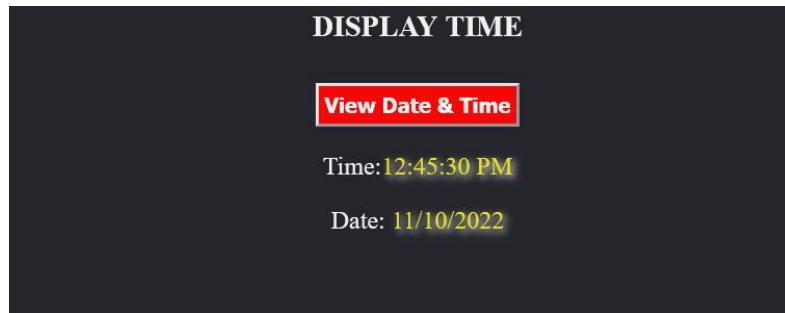
Page Implementation:

- Home

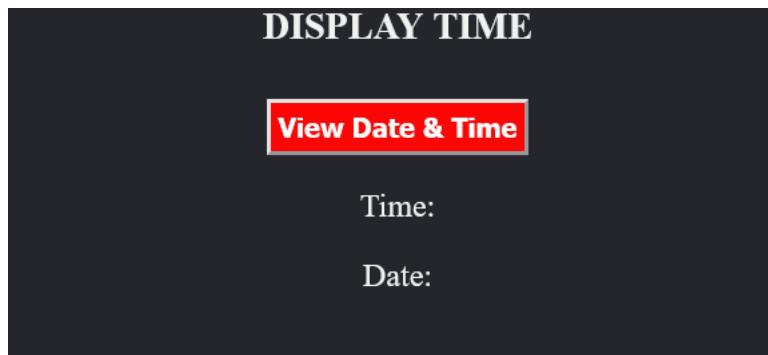
Citation: The idea was taken from the video on YouTube

<https://www.youtube.com/watch?v=bkvH28PXLWc>

SCREENSHOT OF THE ENHANCEMENT



When the View Date & Time button is clicked



When the View Date & Time button is not clicked

4. Colour Change

The colour change is just to catch the attention of the user just so he/she can have a colourful experience while filling in the reading out the disclaimers. The background colour constantly keeps on changing from Yellow, Gray and Pink.

The source code for the Red Border Line can be found below

Javascript

```
function colorchange() {  
    var divtag = document.getElementById("enquirysec");  
    var bgcolor = ["yellow", "gray", "pink"]  
    divtag.style.backgroundColor = bgcolor[i];  
    i = (i + 1) % bgcolor.length;  
}  
setInterval(colorchange, 2000);
```

Html

```
<fieldset id="enquirysec">
```

Css

```
#enquirysec {  
  
    padding-left: auto;  
    padding-right: auto;  
    width: auto;  
}
```

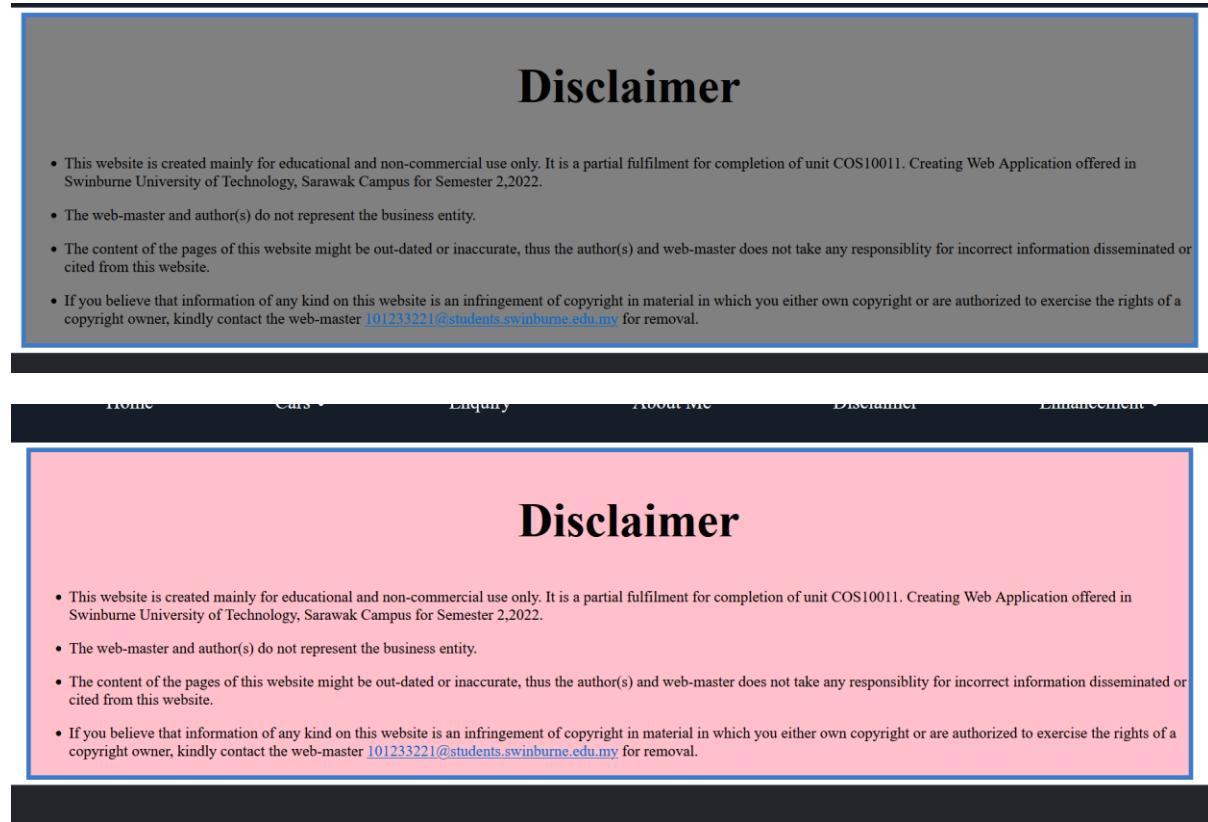
Page Implementation:

- Enquiry

Citation: The idea was taken from the video on YouTube

<https://www.youtube.com/watch?v=K1YoXyRy8Rw>

SCREENSHOT OF THE ENHANCEMENT



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The background colour of the Disclaimer is changing constantly.

5. Animation of Reaction Icon

The Animation of the reaction icon is just to enhance the users experience of emotions that are being animated from a smiley emoji icon to a straight face and then a frowning face.

The source code for the Red Border Line can be found below

Javascript

```
function smile() {  
    var a;  
    a = document.getElementById("div1");  
    a.innerHTML = "\uf118";  
    setTimeout(function () {  
        a.innerHTML = "\uf11a";  
    }, 1000);  
    setTimeout(function () {  
        a.innerHTML = "\uf119";  
    }, 2000);  
    setTimeout(function () {  
        a.innerHTML = "\uf11a";  
    }, 3000);  
}  
setInterval(smile, 2000);
```

Html

```
<div id="div1" class="fa"></div>
```

Css

```
#div1 {  
    font-size: 48px;  
}
```

Page Implementation:

- Enquiry

Citation: The idea was taken from the website

https://www.w3schools.com/howto/tryit.asp?filename=tryhow_js_animate_smile

SCREENSHOT OF THE ENHANCEMENT

Satisfaction Level



Rate your experience



Rate your experience

nt

Good

Fair

|

The animation of reactions changing constantly at a constant rate.