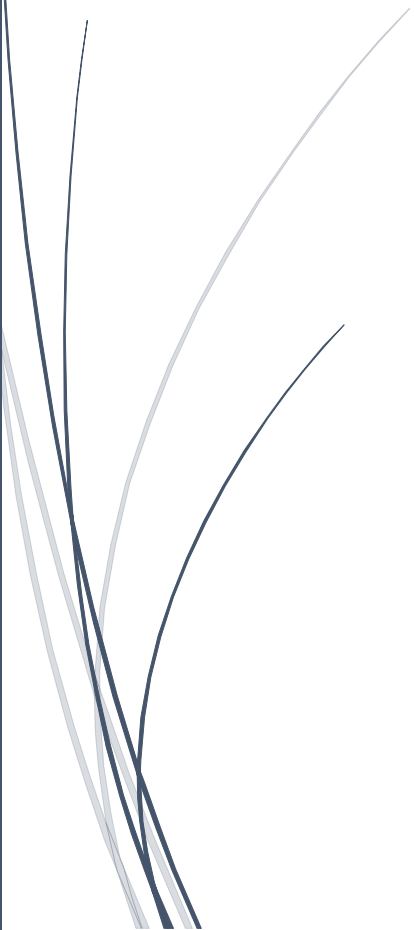


Bachelor of Software Engineering
Centre for IT Education (CITES) Department of Electrical and
Computer Engineering
The Open University of Sri Lanka

Mini Project Documentation

EEI3346 - WEB APPLICATIONS DEVELOPMENT



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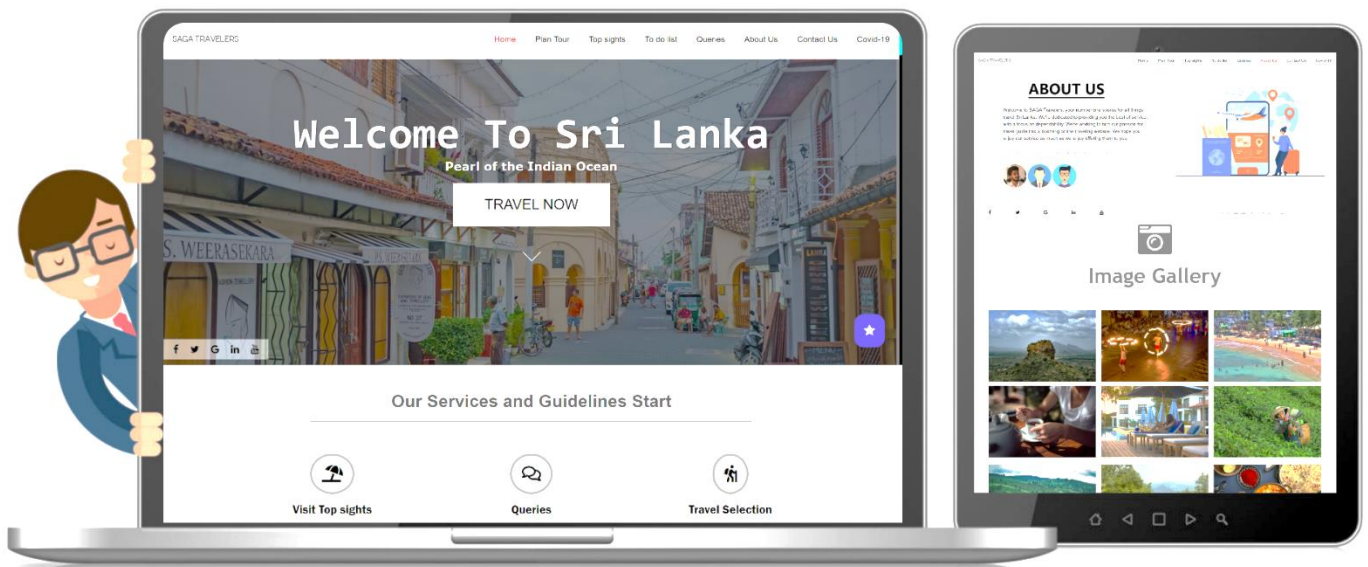
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Introduction Of Project

SAGA TRAVELERS Traveling Website

Welcome to SAGA Travelers, your number one source for all things travels Sri Lanka. We're dedicated to providing you the best of service, with a focus on dependability. We're working to turn our passion for travel guides into a booming online traveling website. We hope you enjoy our service as much as we enjoy offering them to you.

SAGA TRAVELERS



About project Front Page

First, I have designed the home page very attractive. There I have used a navbar with a white background. Our logo is set on the left side of the navbar. Mainly 8 categories of navbar have been introduced. These are **Plan tour, Top Sights, To-Do List, Queries, About Us, Contact Us, and Covid-19**. I also created a popup review message to give feedback to the website (On-Page Loading). But its backend function is not created. And I have created our SAGA Travel page social media links on the left side bottom of the home page. Review and Social media icons are fixed position on the Website.

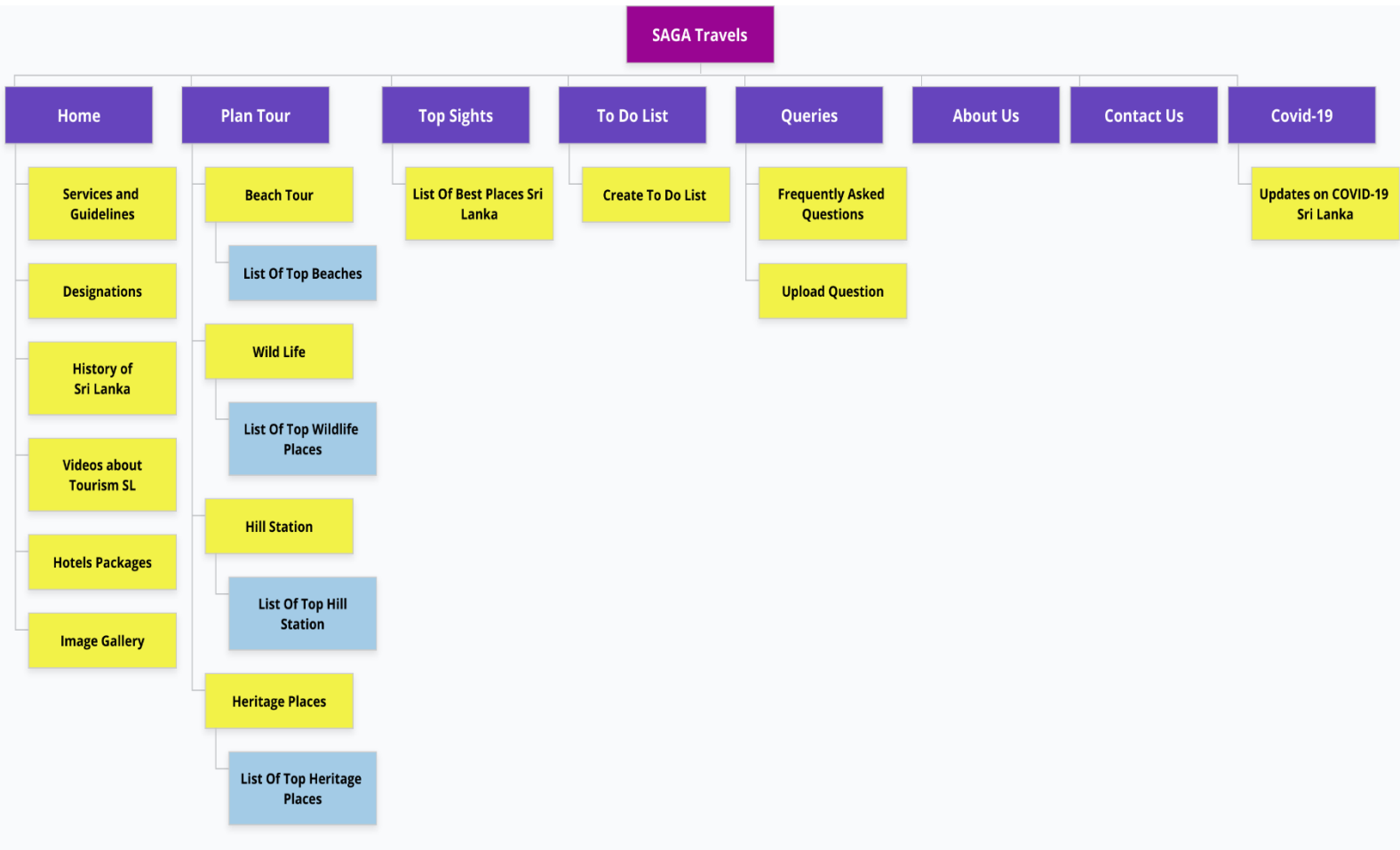
Next, you can see Our Services and Guidelines. Specially It includes covid-19 status in Sri Lanka. Then you can see some of the major travel designations available in Sri Lanka. That is a **beach tour, wildlife, Hill station, Heritage places**. You can also see this designation under the 'plan tour' of the navbar. So Then If you want to know more about Sri Lanka's history, click on explore more in "explore the historical history of Sri Lanka".

Next, if you need to know what the best place is to travel in Sri Lanka, you can click on visit more in " Best Places to Visit in Sri Lanka ". We have linked some videos on the front page for you to know about Sri Lanka as well. If you need hotel facilities, here are some hotels to know about. See the "SAGA Travel Hotels Packages" category. Finally, a photo gallery has been created for Users.

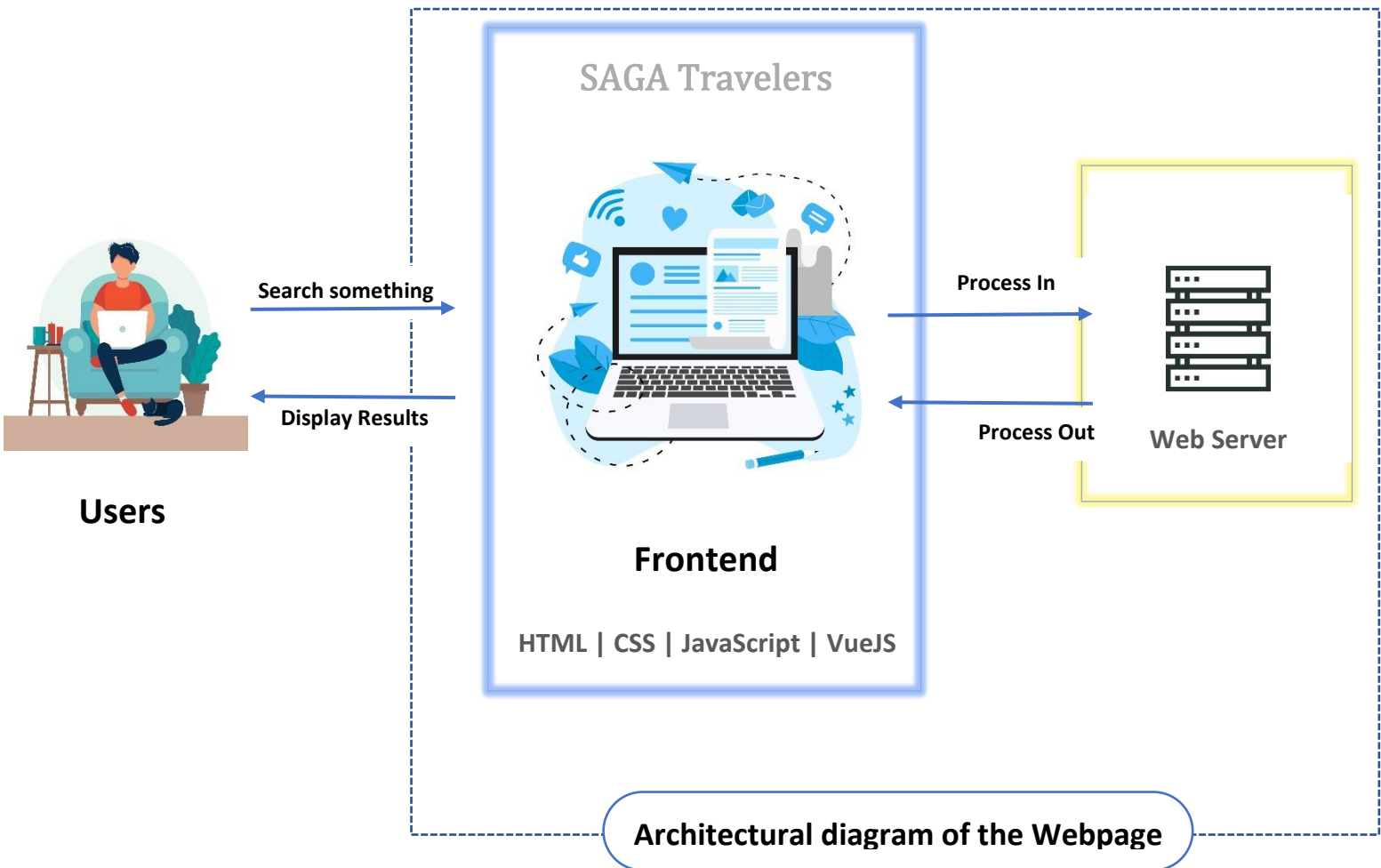
Then you can look at the footer. It has three divisions (about us, contact us, and subscribe). The footer has a dark background and a white font color. No backend facility has been created for the 'subscribe'.

You can easily navigate through other pages using the home page.

Site Map



Architectural diagram of the Webpage



Problems & Solutions

Problems and Constraints, and solutions

Problem - I got the photos I needed for my webpage from google. But the quality of those photos is very low, so the page gets ugly.

Solution - For that I downloaded photos from both **iStock** and **Unsplash** websites. they were very quality, so my page become attractive.

Problem - Put the downloaded photos in a separate folder and link to the webpage. Then the size of my file increased a lot. That was a problem for me.

Solution - I did a google search to find a solution. The Online cloud we found a solution for that. Then I put my photo on it and made a link from it and put it on the web page. I used an online cloud site called **cloudinary**.

Problem - When creating the web page there was no clear idea of the order in which parts should be included.

Solution - I refer some best traveling web pages to get an idea.

Problem - I wanted to open the website on another computer. but I did not have a hosting facility for that. All host services were charged.

Solution - Then I found a free hosting service on YouTube which fulfilled my need. Although there were minor technical errors and lags, it was not a problem for me. I used hosting service it called <https://www.000webhost.com>.

- Problem** - I have to coding the most frequently used CSS codes over and over again, and the code is very large. For example, the same CSS code has been used extensively for both beach and wildlife pages.
- Solution** - To avoid this problem, I have put the most commonly used CSS codes (e.g., Navbar CSS code, Footer CSS code, social icon bar CSS) into a single CSS file. Then I linked the file containing that common CSS code to every relevant HTML page. It was able to reduce the
-
- Problem** - As I continued to build the website, I realized that the content of my page was less responsive. so, I had to remove some of the content.
- Solution** - I got help from **stack-overflow** to avoid it. There I was able to learn a lot of things I did not know. Then I rearranged and added the delete contents again.
-
- Problem** - Creating content without getting caught up in plagiarism and copyright when entering data into a website.
- Solution** - To avoid this, I took details from various pages (Wikipedia, YouTube, Facebook), collected them, re-organized them correctly, and added them to my page.
-
- Problem** - Another issue I had was color matching. Often there are times when the colors of the page do not match with the contents. And I was unable to select best color for relevant concepts
- Solution** - To avoid this problem, I read articles on the website, and I got feedback from my friends and successfully solved that problem.
-
- Problem** - VueJS framework is unfamiliar to me, therefore various problems arose while creating the to do list.
- Solution** - The <https://vuejs.org/v2/guide> website helped a lot to solve it.
-

Used Web Technologies and examples

For the SAGA Travels web page, I have used four different web technologies,

- Hyper Text Markup Language (HTML 5)
- Cascading Style Sheets (CSS)
- JavaScript
- VueJS (front end JavaScript framework)

About 70% of my website is mainly made up of HTML. I used the 5th version of HTML. My Open University helped me a lot in learning HTML. Also, I did self-learning and learned a lot. These are YouTube, stack overflow, w3school, solo-learn. Then I used CSS to enhance the beauty of my page. The above also helped me a lot in learning CSS. Then I used JavaScript to make the page more attractive. With that, I created popup messages, drop-down menu, filters, etc. Then I used vueJS, a JavaScript frontend framework. I used vueJS specifically to create the to-do list. I have created my mini project using all this technology. Below are some screenshots of the HTML, CSS, JS, and vueJS code I used.

- HTML 5

Below is a small section of the HTML code on my web home page.

The image displays the Visual Studio Code editor with a project named "index.html - Mini project". The Explorer panel on the left shows the project structure, including files like "index.html", "abt.html", "beach.html", "contactUs.html", and "Documentation.docx". The Outline panel on the right shows the structure of the "index.html" file, with sections like "Navigation bar start", "social bar", "Hero section start", and "Our Services and Guidelines Start".

The main editor area shows the content of "index.html", which is a single-page application for a travel website. The code includes a navigation bar with links to "Covid-19", "Contact Us", "About Us", "Queries", "To do list", "Top sights", and a dropdown menu for "Plan Tour" containing "Beach Tour", "Wild Life", "Hill Stations", and "Heritage places".

The "social bar" section contains links to Facebook, Twitter, Google, LinkedIn, and YouTube. The "Hero section" features a "Welcome" message, a "Travel Now" button, and a "scrollWin()" function. The "Our Services and Guidelines Start" section includes a "Best Places" list with "Sri Lanka" and "Pearl of the Indian Ocean" as highlights.

- CSS

Below is a small section of the CSS code on my web home page.

The image displays two screenshots of the Visual Studio Code editor, showing the 'multistyle.css' file in a project named 'Mini project'.

Top Screenshot: The editor shows the 'multistyle.css' file with the following CSS code:

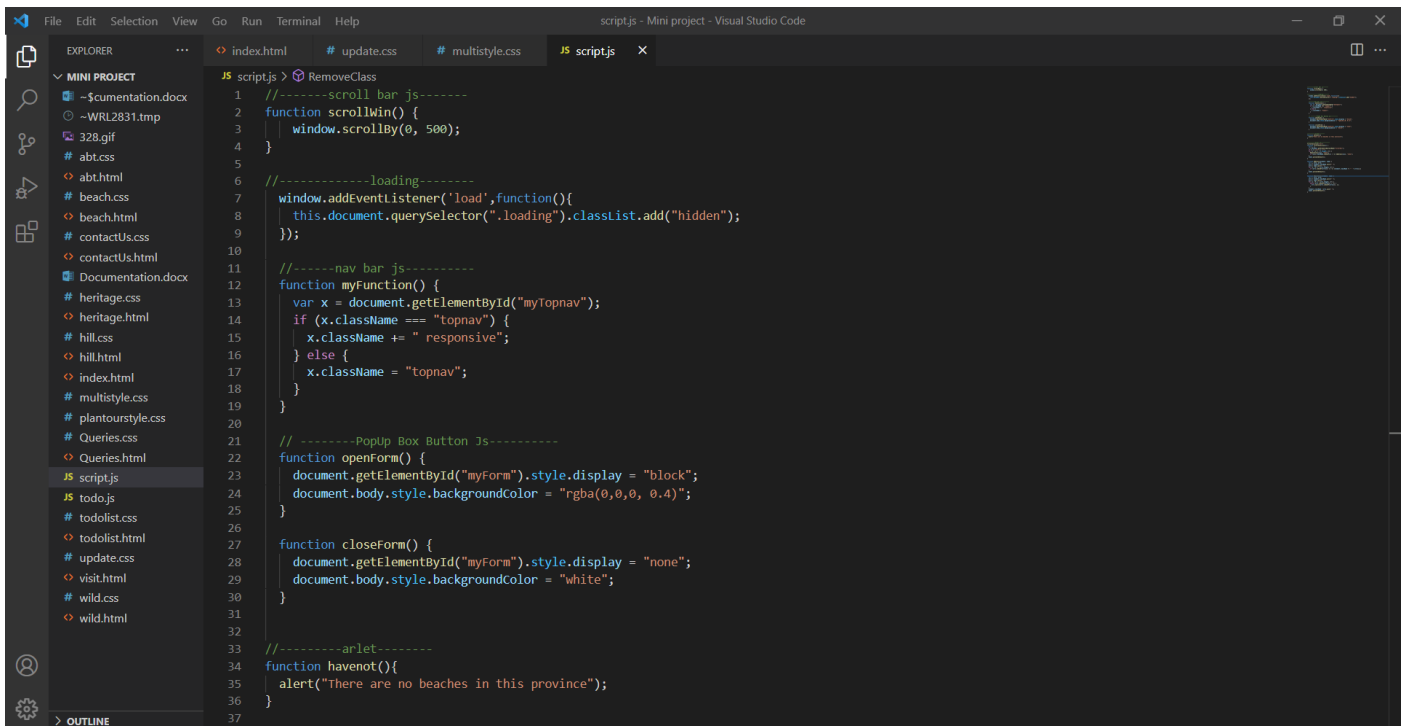
```
/*-----Scroll bar style-----*/
::-webkit-scrollbar {
  width: 7px;
  background: #000000;
}
::-webkit-scrollbar-thumb {
  background: #00ffff;
  border-radius: 10px;
}
/*----- Reset-----*/
*{
  margin: 0;
  padding: 0;
}
html {
  scroll-behavior: smooth;
}
/*-----loading-----*/
.hidden{
  display: none;
}
.loading{
  background-color: rgba(0, 0, 0, 0.705);
  position: fixed;
  top: 0;
  left: 0;
  width: 100%;
  height: 100%;
  transition-delay: 2s;
  text-align: center;
  z-index: 100;
}
.loading img{
  margin-top: 400px;
}
```

Bottom Screenshot: The editor shows the 'multistyle.css' file with the following CSS code:

```
/*-----page Footer start-----*/
footer{
  color: rgb(255, 255, 255);
  width: 100%;
  font-family: 'Segoe UI', Tahoma, Geneva, Verdana, sans-serif;
  background-image: linear-gradient(rgba(0, 0, 5, 0.938), rgba(0, 0, 0, 0.815)), url("https://png.pngtree.com/thumb_back/fw800/back_pic/05/12/34/335997be2b68526.jpg");
  background-repeat: no-repeat;
  background-size: cover;
  font-style: italic;
}
.container{
  display: flex;
  padding: 3rem;
}
.container .section{
  flex-basis: 50%;
  padding: 0 20px;
}
.section h2{
  font-size: 1.125rem;
  font-weight: 600;
  text-transform: uppercase;
}
.section .content{
  margin: 20px 0 0 0;
  position: relative;
}
.section .content::before{
  position: absolute;
  content: '';
  top: -10px;
  height: 2px;
  width: 100%;
}
.section .content::after{
```

- JavaScript

Below is a small section of the JS code on my web home page



The screenshot shows the Visual Studio Code editor with a project named 'scriptJs - Mini project'. The Explorer sidebar on the left lists various files including documentation, images, and HTML/CSS files. The main editor window displays the 'scriptJs' file with the following JavaScript code:

```
1 //-----scroll bar js-----
2 function scrollwin() {
3   | window.scrollBy(0, 500);
4 }
5
6 //-----loading-----
7 window.addEventListener('load',function(){
8   | this.document.querySelector(".loading").classList.add("hidden");
9   | });
10
11 //-----nav bar js-----
12 function myFunction() {
13   | var x = document.getElementById("mytopnav");
14   | if (x.className == "topnav") {
15   |   | x.className += " responsive";
16   | } else {
17   |   | x.className = "topnav";
18   | }
19 }
20
21 // -----PopUp Box Button Js-----
22 function openForm() {
23   | document.getElementById("myForm").style.display = "block";
24   | document.body.style.backgroundColor = "rgba(0,0,0, 0.4)";
25 }
26
27 function closeForm() {
28   | document.getElementById("myForm").style.display = "none";
29   | document.body.style.backgroundColor = "white";
30 }
31
32
33 //-----arlet-----
34 function havenot(){
35   | alert("There are no beaches in this province");
36 }
37
```

- VueJS

Below is a section of the VueJS code on my web home page

```
<!-- VueJS CDN -->
<script src="https://cdn.jsdelivr.net/npm/vue@2.6.14/dist/vue.js"></script>

<!-- ToDoList -->
<div id="app">
  <div class="containerTODO"><i class="fas fa-list"></i>
    <h1>&#160; To Do List</h1><br><br>
    <input id="inputtodo" type="text" v-model='todo' @keyup.enter="stock">
    <input type="submit" class="button-todo" value="Add To List" v-on:click="stock()" >
  <ol>
    <li v-for='(todo , index) in todos'>
      {{todo}}
      <button id="libtn" @click="deletetcode(index)"><i class="fas fa-trash-alt"></i></button>
    </li>
  </ol>
</div>
</div>

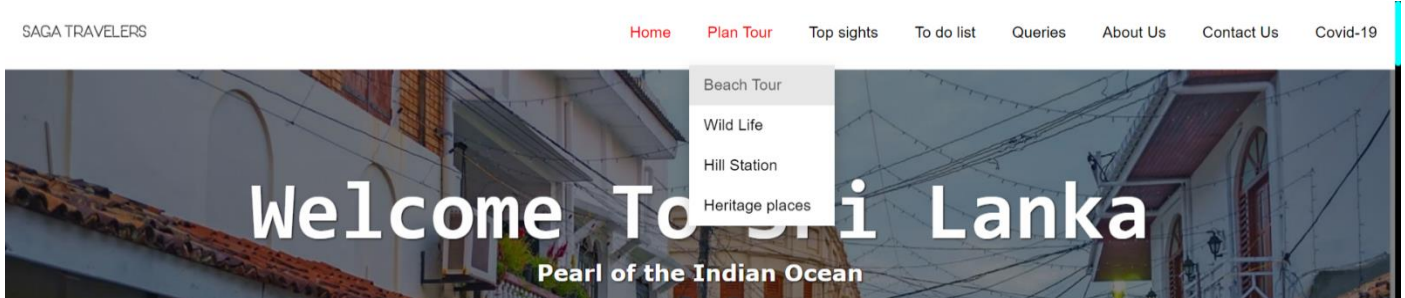
<script src="todo.js"></script>

// todoList VueJs Code
new Vue ({
  el: '#app',
  data: {
    todo: '',
    todos: []
  },
  methods: {
    stock() {
      this.todos.push(this.todo)
      this.todo = '';
    },
    deletetcode(index) {
      this.todos.splice(index, 1)
    }
  }
});
```

Test Results

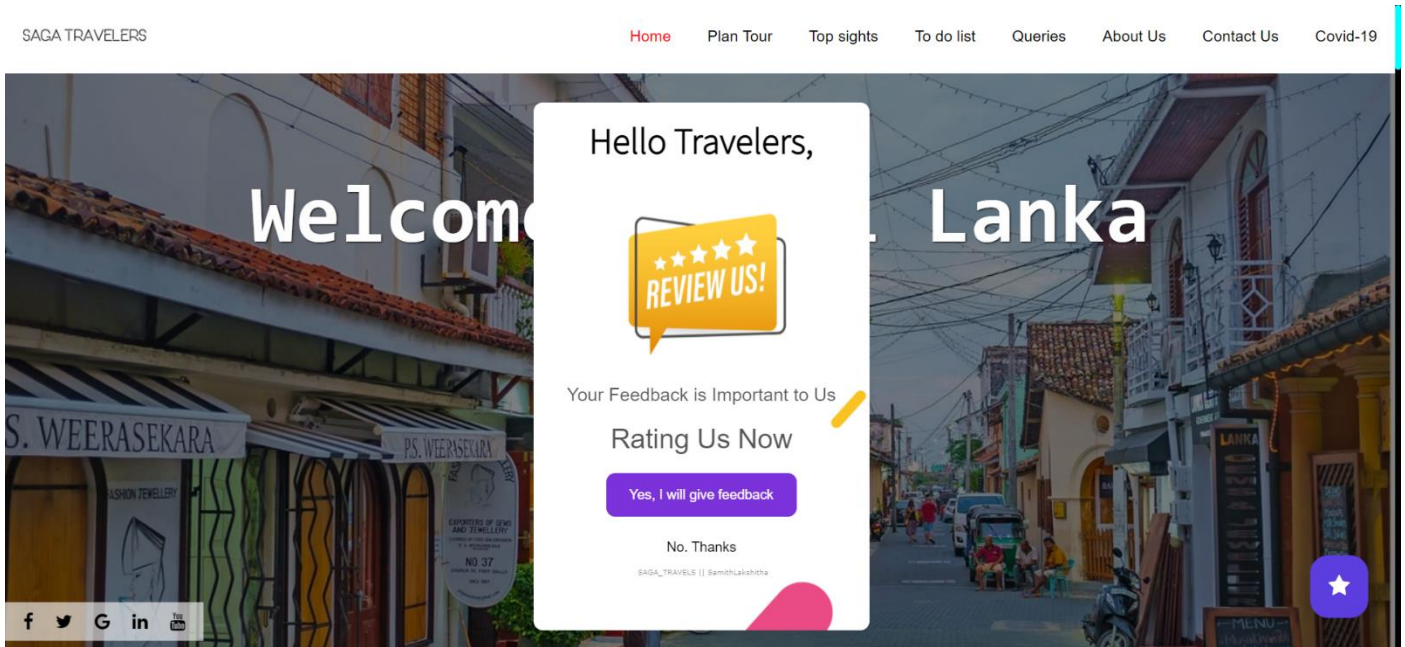
Test cases with screenshots and descriptions

1. Dropdown Fixed Navbar



Description - This is the navbar of the website. Here the position is fixed. Therefore, when scrolling the webpage, the navbar remains the same. In addition, sub content is included in this navbar. Sub content such as beach tour, wildlife etc. is added to the 'plan tour' content.

2. Popup Review Message



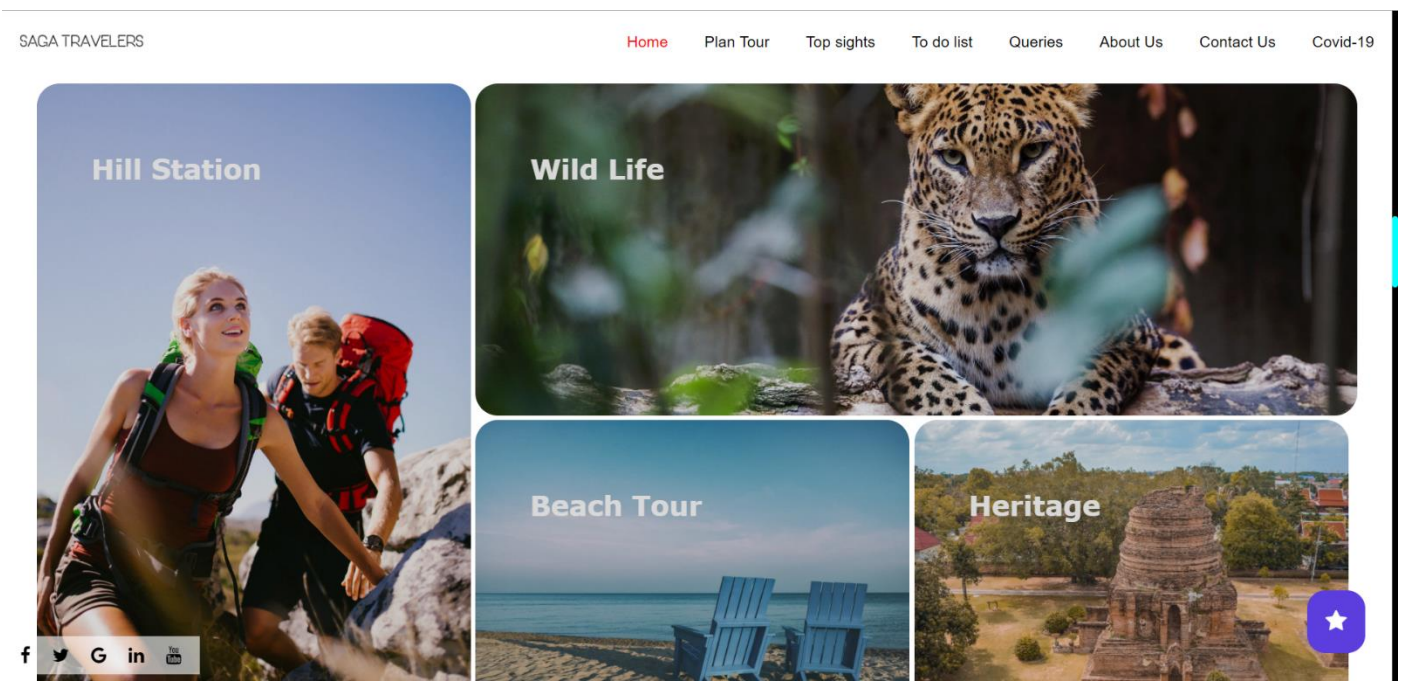
Description - This is the review pop up message on the front page. 3 seconds after the page loads, auto popup message is set to display to the user. JavaScript was used to make it work. The background is set to dark when it is displayed. No backend function was used for this as it was said that applying backend function was unnecessary.

3. Fixed Social Media Icons Bar



Description - This is the Social Bar of the website. Here the position is fixed. Therefore, when scrolling the webpage, the Social bar remains the same. In addition,

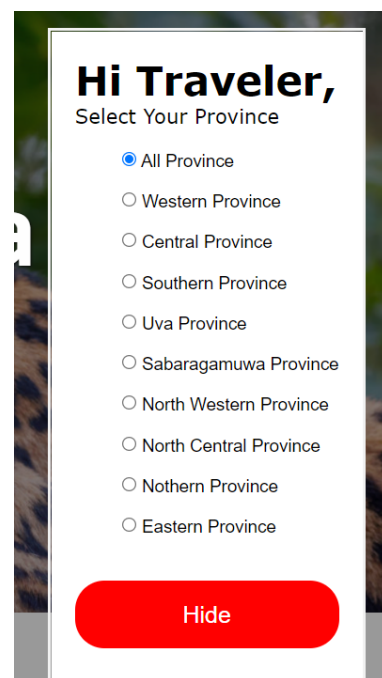
4. Travel Designation Grid



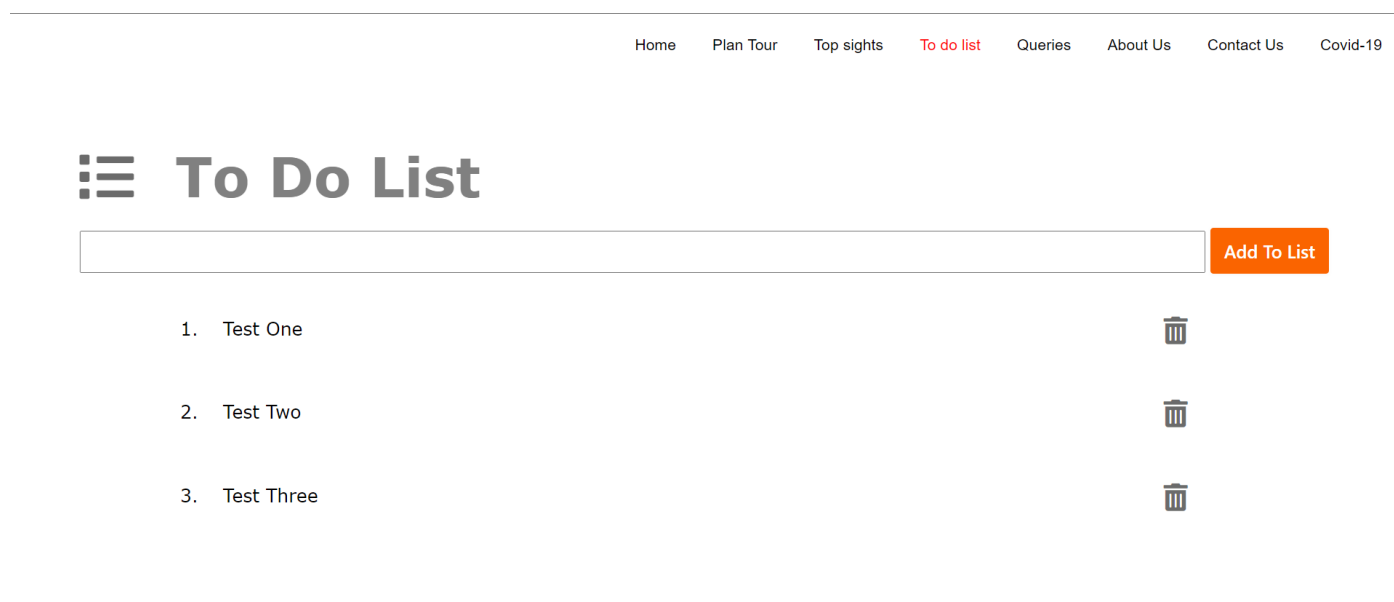
Description - This is the Travel Designation grid on the front page. This allows the user to easily select the desired designation. Each of these boxes is linked to a separate page. For example, when you click on wildlife, the wildlife related page will open. A shaded line hover has been added to this box. Border radius and box of different sizes are used to increase attractiveness.

5. Province Filter

Description - This is the Filter option on my web page. This allows us to filter out the traveling places we want here according to the province. This is powered by JavaScript. It is also coded to display as a popup message 3 seconds after the page loads. You can hide the popup message by clicking the 'hide' button below. If you want to get that filter again, you can get it back by clicking on the lens mark below.



6. VueJs ToDoList

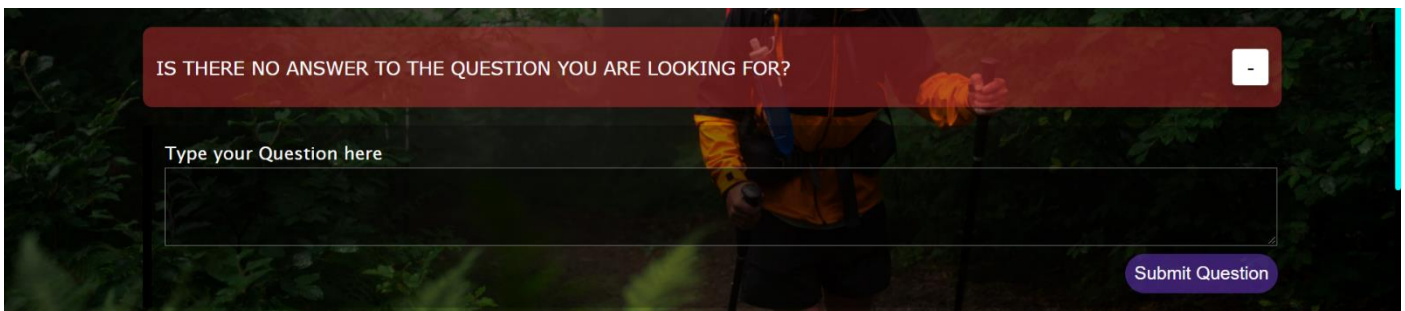


Description - This is the To Do List on the webpage. This allows the user to type and store what they want to note. When you input one by one, it is displayed at the bottom as a list. The VueJS framework was used to create this. You can also delete the input you entered. You can add as many inputs as you want. It also can enter inputs with the enter key.

7. Queries Section



Description - This is the One Queries on the webpage. This answers the frequently asked questions of the user. The above is how it is displayed before opening. Below is how it is displayed after exploring. This is made up of CSS & HTML. If your question is not here, you can enter your question bottom of this section. (7.0 picture)



7.0 picture

Conclusion

I'm done creating my own webpage. Some contents I was able to do better than I thought. So, I'm happy. I now understand how to create a webpage that is productive for the visitor. This increased my creativity. And I would like to say that the knowledge I gained from this was that I was able to find answers to many of the problems I encountered while doing this project. Not only that, but I also learned about time management. I was able to complete this project in about a month. And while doing the project, I also got a good idea of how we should use websites like stack overflow, w3school. I wanted to add many more to the website but could not because of time constraints. But I was able to make this mini project more attractive than I thought. And in future projects, I will use the knowledge gained from this project to add new things and make sure to do it creatively. Finally, I hosted this webpage in one of the free hosting mentioned above. The link is below. And I can create a repository in GitHub and put all my codes in order. You can watch it.

Thank You read my Documentation.

Git Hub repository	-	https://github.com/Samithlakshitha/EEI3346-Mini-Project
Website Link	-	https://eei3346-miniproject.000webhostapp.com/
LinkedIn profile	-	https://www.linkedin.com/in/samithlakshitha/

- ! I used a loading function to switch between pages, but because of the slowness of the hosting page, it shows up for a long time.
- I apologize if this is a problem for you, but if you download and run the source files, it will run smoothly.