

OPEN UNIVERSITY – SRI LANKA

# [MINI PROJECT]

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[EEX3346]

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# INTRODUCTION

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**My hometown is HORANA. This town boasts scenic beauty, and its roads are well-connected, making it accessible for visitors. But there are more buildings than trees. So I had to find how to improve this environment without harming to current situations. Lately the atmosphere is city become too warm; it affects day-to-day life of people who live in here.**

**So we have to find solutions to some problems to overcome this situation and make our city eco-friendly. There are so many roads, schools, temples, shops which boast the beauty of our city.**



# PROBLEMS

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- **Lack of awareness**

- **What is the nature?**
- **What is the pollution?**
- **What are the solutions?**
- **How to get eco-friendly knowledge?**

- **No actionable steps**

- **Are the people feeling same?**
- **How can I join to protect?**
- **What can I do?**
- **Is there any platform to gather knowledge?**
- **How can we gather people who have the same interest?**

- **Reduce carbon-dioxide emissions**

- **How to solve?**
- **Tree plantations?**
- **Foundation projects?**

- **Lack of environmental education**

- **How to learn the knowledge?**
- **How to raise ecological awareness?**
- **Among the public?**
- **Among the business leaders?**

- **Meaningful experience**

- **How to inspire others to become a part of the mission?**
- **How to raise their interest?**

## SOLUTIONS

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The main solution is to make **interactive platform** to answer all problems. Now let's see how we can approach to this solution step by step. The platform must foster a sense of community by featuring local environmental events and connecting users passionate about positive change.

1. Conduct a research about environmental problems in the local area.
2. Identify opportunities for improvements.
3. Gather information on eco-friendly practices in the area.
4. Develop the original content.
5. Create or take pictures and videos of the particular areas.
6. Give solutions separately to each pollution problems.
7. Try to collaborate with environmental experts and organizations to ensure the accuracy and relevance of content.
8. Design an intuitive and visually appealing interface that enhances user engagement and encourages exploration.
9. Ensure easy navigation and accessibility across various devices and screen sizes.
10. Create interactive features to make learning fun and interactive.

11. Discussion forums, social sharing buttons, and user-generated content sections for community to interact with each other.
  12. Provide opportunities for users to connect with like-minded individuals, share experiences, and support each other
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13. Create a feedback mechanism to gather input and suggestions from users.
  14. Regularly review and respond to user feedback to improve the platform's functionality.
  15. Address any issues or concerns raised by users.
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16. Improve the platform continuously.
  17. Update content, features, and user experience based on feedback and performance metrics.
  18. Stay informed about emerging trends, technologies, and best practices in sustainability education.
  19. Stay informed about online community building.
  20. Collaborate with users to drive ongoing innovation and improvement in the platform.

**Summary-**

- ❖ Research and Analysis
- ❖ Content Development
- ❖ User Experience Design
- ❖ Community Building
- ❖ Feedback Mechanism
- ❖ Continuous Improvement

# ARCHITECTURAL DIAGRAM

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The architectural diagram provides a visual representation of the structure and components of the interactive platform. It illustrates how different elements of the platform interact with each other to deliver the desired functionality and user experience. When we talk about the architecture of a software system, we're describing how different parts work, what they do, and how they connect with each other.

## Front-end components

Web page -

- header
- Add web pages attach to each other
- Overview or introduction
- Main picture or slideshow
- Background of the page
- Footer

Navigation –

- Home
- About
- Issues
- Solutions
- Contact

Feedback forum. –

- Field to register
- Our details
- Comment section
- contacts

# USED WEB TECHNOLOGIES

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## HTML

used to structure the content of web pages and define the layout, texts and multimedia.

Examples-

```
<p1><h3>Welcome to Green Nature, an interactive platform that educates users  
on eco-friendly  
practices, with practical knowledge and actionable steps toward a more  
sustainable  
lifestyle.</h3></p1>
```

```
<div class="slideshow-container">  
  <div class="mySlides fade">  
      
  </div>  
  <div class="mySlides fade">  
      
  </div>  
  <div class="mySlides fade">  
      
  </div>  
</div>
```

```
<link rel="stylesheet" href="styles.css">
```

```
<script src="Js.js"></script>
```

# CSS

used to style the appearance of web pages and controls aspects as colors, fonts and layout.

Examples-

```
body{  
    background-image: url("theme.jpeg");  
    background-repeat: repeat-y;  
}
```

```
h2 {  
  
    display: block;  
    font-size: 35px;  
    margin-block-start: 0.83em;  
    margin-block-end: 0.83em;  
    margin-inline-start: 0px;  
    margin-inline-end: 0px;  
    font-weight: bold;  
}
```

```
.slideshow-container {  
    max-width: 100%;  
    position: relative;  
    margin: auto;  
    text-align: center;  
}
```

## JAVASCRIPT (JS)

used to add interactivity and dynamic behavior to web pages such as, animation and form validation.

Examples -

```
let slideIndex = 0;

showSlides();

function showSlides() {

    let slides = document.getElementsByClassName("mySlides");

    for (let i = 0; i < slides.length; i++) {

        slides[i].style.display = "none";

    }

    slideIndex++;

    if (slideIndex > slides.length) {

        slideIndex = 1;

    }

    slides[slideIndex - 1].style.display = "block";

    setTimeout(showSlides, 3000); // Change slide every 3 seconds

}
```

```
function returnToHomepage() {

    window.location.href = 'mini project 1 (EEI3346).html';

}
```

## Vue.JS

used to build user interfaces and single-page applications. Such as, dropdown menus, modals, and dynamic content sections.

Examples -

```
new Vue({
  el: '#app',
  data: {
    comments: [],
    newComment: ''
  },
  methods: {
    addComment() {
      if (this.newComment.trim() !== '') {
        this.comments.push(this.newComment);
        this.newComment = '';
      }
    }
  });
});
```

# TEST RESULTS

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## Adding a navigation bar-

First I wanted to add a horizontal navigation bar. So I used,

```
<nav>
    <ul>
        <li><a href="home.html">Home</a></li>
        <li><a href="about.html">About</a></li>
        <li><a href="services.html">Services</a></li>
        <li><a href="contact.html">Contact</a></li>
    </ul>
</nav>
```

```
nav ul {
    list-style-type: none;
}

nav ul li {
    display: inline;
    margin-right: 20px;
}

nav ul li a {
    color: #0b0b0b;
    text-decoration: darkblue;

}

main {
    padding: 20px;
}

ul{
    text-align: left;
    background-color: "blue";
}
```

But it didn't give the output I wanted as blocks. Then I decided to add CSS styles as inline. Then I got the navigation bar as I wanted with selected colors.

```
<style>
  ul{
    list-style-type: none;
    margin: 0;
    padding: 0;
    overflow: hidden;
    background-color: #626262;
  }
  li{
    float: left;
  }
  li a{
    display: block;
    color: white;
    text-align: center;
    padding: 14px 16px;
    text-decoration: none;
  }
  li a.active{
    background-color: #111;
    color: white;
  }
  li a:hover:not(.active){
    background-color: #111;
  }
</style>
```



## Adding image slideshow-

I wanted to try add few images to the main page for the introduction. So I tried to add a slide show instead of image gallery. I studied some web sites to my project. found how to add a slideshow.

```
<div class="slideshow-container">
  <div class="mySlides fade">
    
  </div>
  <div class="mySlides fade">
    
  </div>
  <!-- Add more slides as needed -->
</div>
/* Slideshow container */
```

HTML

```

.slideshow-container {
    max-width: 100%;
    position: relative;
    margin: auto;
}

/* Hide slides by default */
.mySlides {
    display: none;
}

/* Optional: Add styles for slide captions or other elements */
/* .text { ... } */
/* .numbertext { ... } */
/* .dot { ... } */

```

CSS

```

let slideIndex = 0;
showSlides();

function showSlides() {
    let slides = document.getElementsByClassName("mySlides");
    for (let i = 0; i < slides.length; i++) {
        slides[i].style.display = "none";
    }
    slideIndex++;
    if (slideIndex > slides.length) {
        slideIndex = 1;
    }
    slides[slideIndex - 1].style.display = "block";
    setTimeout(showSlides, 3000); // Change slide every 3 seconds
}

```

JS

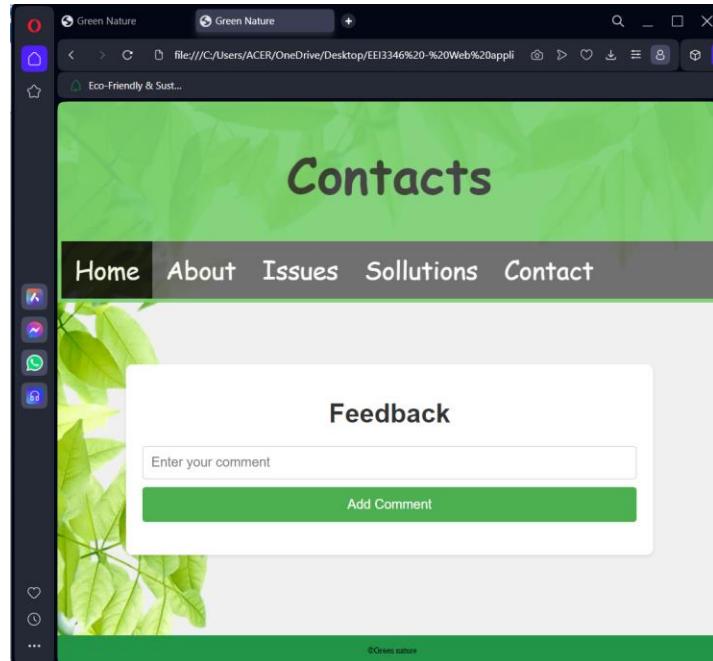
Then I add some changes and make the slideshow.



## Adding comment section-

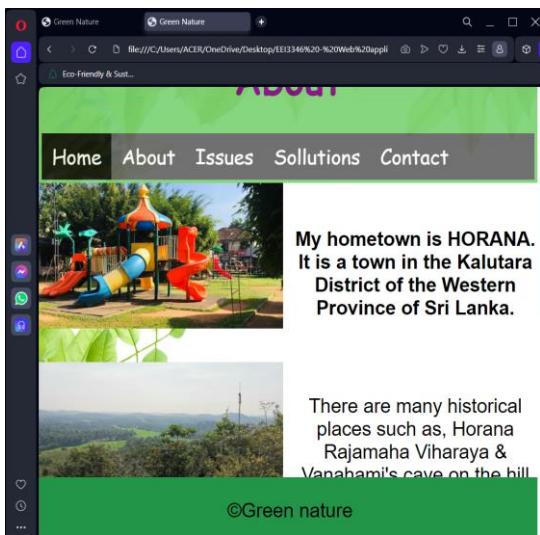
I add a comment section using vue.js. so that users can give a feedback.

```
new Vue({
  el: '#app',
  data: {
    comments: [],
    newComment: ''
  },
  methods: {
    addComment() {
      if (this.newComment.trim() !== '') {
        this.comments.push(this.newComment);
        this.newComment = '';
      }
    }
  }
});
```



## Adding images as section-

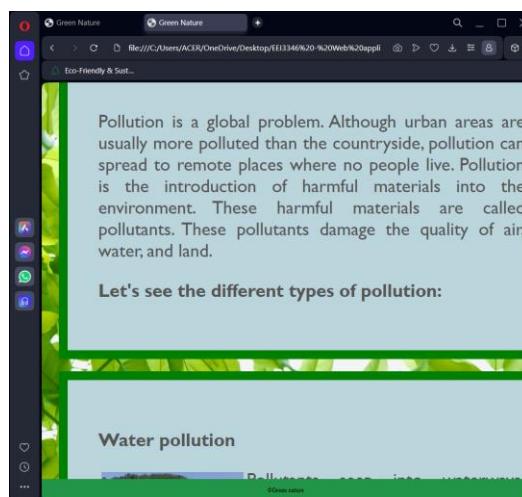
```
<main>
    <section>
        
    </section>
    <section><br><br>
        <p><b>My hometown is HORANA. It is a town in the Kalutara District of the Western Province of Sri Lanka. </b></p>
    </section>
    <section><br>
        
    </section>
    <section><br><br>
        <p>There are many historical places such as, Horana Rajamaha Viharaya & Vanahami's cave on the hill of Horana Falls. </p>
    </section>
    <section>
        
    </section>
    <section><br><br><br>
        <p>Also my town has Wonderful ecological places such as, Horana Falls Mountain Waterfall and Feeder Area. </p>
    </section>
    <section>
        
    </section>
    <section><br><br>
        <p><b>This town boasts scenic beauty, and its roads are well-connected, making it accessible for visitors.</b> </p>
    </section>
    <section>
        
    </section>
    <section><br><br>
    </section>
</main>
```



## Adding little boxes-

I tried to add problems in boxes so that users It can grab the users attention well.

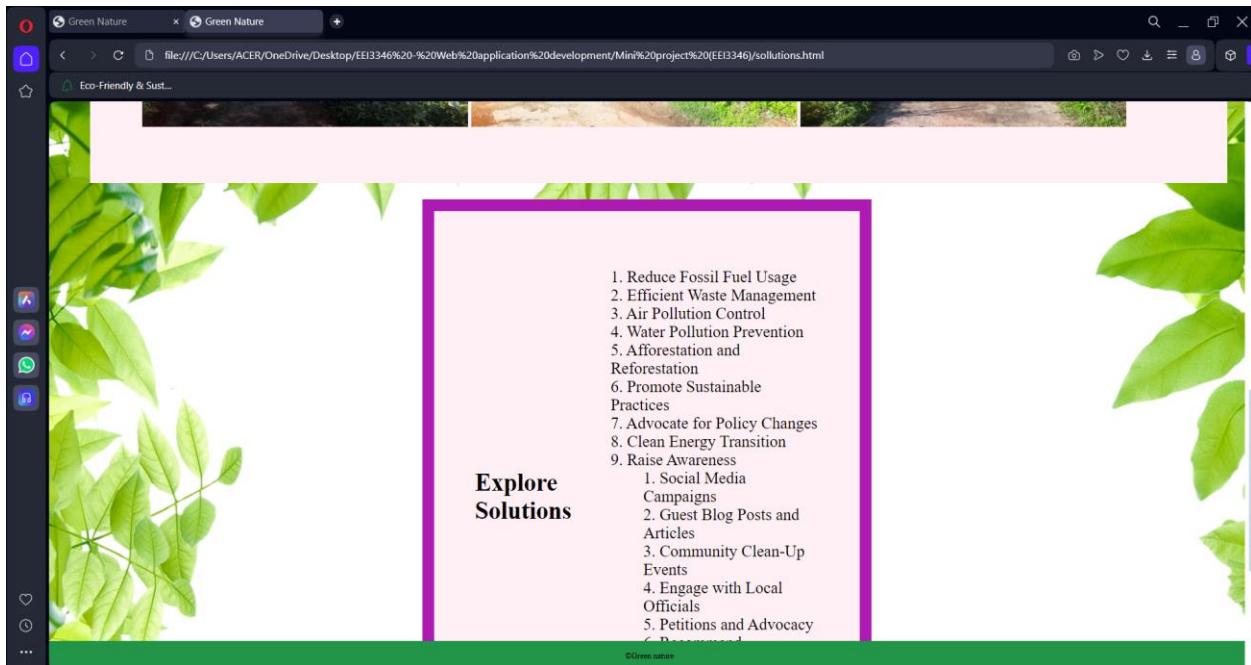
```
<div class="element">
    <p>Pollution is a global problem. Although urban areas are usually more polluted than the countryside, pollution can spread to remote places where no people live.
        Pollution is the introduction of harmful materials into the environment. These harmful materials are called pollutants.
        These pollutants damage the quality of air, water, and land.
    </p>
    <p><strong>
        Let's see the different types of pollution:</strong> </p>
</div>
```



## How to center the sections –

After writing html code I add some changes to the css code to get the result

```
.section1{  
background-color:lavenderblush;  
width: 30%;  
border: 15px solid rgb(175, 25, 180);  
padding: 50px;  
margin: 20px;  
max-width: 100%;  
font-size: 20px;  
margin-left: auto;  
margin-right: auto;  
display: flex;  
justify-content: center;  
align-items: center;  
}  
}
```



# CONCLUSION

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- ❖ This website encourages users to explore various environmental facets and take proactive steps towards conservation.
- ❖ We aims to empower individuals to make informed decisions by creating this.
- ❖ The feedback forum and real-time updates on environmental events, encourage active participation and collaboration among users.
- ❖ We can find solution to current environmental problems in our area.
- ❖ By creating this website, it is a good experience for future assignments.
- ❖ The website is a platform for promoting eco-friendly practices and fostering sustainable lifestyles.

**Thank You!**