VISVESVARAYA TECHNOLOGICAL UNIVERSITY

Jnanasangama, Macche, Santibastwada Road
Belagavi-590018, Karnataka

A
Mini-Project Report : 21MP210
on

Developing ELECTRO-SPOT Website using VS-CODE Software

Submitted in partial fulfillment of the requirement for the degree of

Bachelor of Engineering – First Year BE (1st Semester)
in
Electronics & Communication Engineering
by

USN : 1DS21EC201	**Shubhanshu Jain**
USN : 1DS21EC187	**Saurabh Kumar**
USN : 1DS21EC225	**Vaidik Singh Nirwan**
USN : 1DS21EC041	**Ayush Gupta**

Under the guidance
of

Prof. Kavita Guddad
Internal Departmental Project Guide
Designation, ECE Dept., DSCE, Bengaluru

Department of Electronics & Communication Engineering
(An Autonomous College affiliated to VTU Belgaum, accredited by NBA & NAAC)
Shavige Malleshwara Hills, Kumaraswamy Layout,
Bengaluru-560078, Karnataka, India

2021-22

Certificate

Certified that the mini project work entitled "**Developing ELECTRO-SPOT Website using VS-CODE Software** "carried out by are **: : 1DS21EC201 Shubhanshu Jain, : 1DS21EC187 Saurabh Kumar, : 1DS21EC225 Vaidik Singh Nirwan and : 1DS21EC041 Ayush Gupta** bonafide students of Dayananda Sagar College of Engineering, Bangalore, Karnataka, India in partial fulfillment for the award of Bachelor of Engineering in Electronics & Communication Engineering of the Visvesvaraya Technological University, Belagavi, Karnataka during the academic year 2021-22. It is certified that all corrections / suggestions indicated for mini project work have been incorporated in the report deposited to the ECE department. This mini project report **(21MP110)** has been approved as it satisfies the academic requirement in respect of mini project work prescribed for the said degree.

Dept. Mini Project Coordinator Convener	Mini Project Guide
Dr. Nagachandra MK	Prof. Kavita Gudda
Section Mini-project Co-ordinator	Head of the Department
Prof. Navya Holla	Dr. T.C.Manjunath

External Project Viva-Voce

Name of the project examiners :

1 : Signature : _____

2 : Signature : _____

Declaration

Certified that the mini project work entitled, "**Developing ELECTRO-SPOT Website using VS-CODE Software**." is a bonafide work that was carried out by ourselves in partial fulfillment for the award of degree of Bachelor of Engineering in Electronics & Communication Engg. of the Visvesvaraya Technological University, Belagavi, Karnataka during the academic year 2021-22. We, the students of the mini project group/batch no. **N-20** hereby declare that the entire project work has been done on our own & we have not copied or duplicated any other's work. The results embedded in this mini project report have not been submitted elsewhere for the award of any type of degree.

Mr.Shubhanshu Jain
USN :1DS21EC201

Sign : _____

Mr.Vaidik Singh Nirwan
USN : 1DS21Eco225

Sign : _____

Mr.Ayush Gupta
USN : 1DS21EC041

Sign : _____

Mr. Saurabh Kumar
USN : 1DS21EC187

Sign : _____

Date : / /

Place : Bengaluru -78

Abstract

As we know that today's generation is living in digital world and sometimes this digital world serves us lots of misleading and fake information with us.

So, our group has decided to host a website named "ELECTROSPOT" which contains reliable and knowledgeable content which will be very useful for college student in their projects and assignment. This website contains information gathered from trustworthy sources like books, articles, newsletters, scientist's work and electronics experiments. This project mainly consist of developing a website that contains various information, uses , studies , research , block-diagram , circuit-diagram of various types of electronics components like resistors , capacitors , 555 Ic-timer , Oscillators , MOSFETS , Op-Amps , etc. Users on our website can access to various information on electronics and no need to install any application on pc or mobile

Useful for study of different electronics components along with full description of them. website can further be updated regularly with new informations and experiments. If you are a skilled web development professional, you will have several career options available in front of you. You may have to add a skill or two to your repertoire, but we don't think that's asking too much for a good career. Here are a few career options,to develop a website that accommodate different electronics component informations along with its circuit diagrams, flow charts, etc., website named ELECTROSPOT " to be hosted on internet. The aim of the project is to create a electronics website named as ELECTROSPOT which will be useful for studying various electronics components at one place.Aesthetic user interface, making it an enriching experience for creation of web pages.

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ITRODUCTION

As we know that today's generation is living in digital world and sometimes this digital world serves us lots of misleading and fake information with us.
So, our group has decided to host a website named "ELECTROSPOT" which contains reliable and knowledgeable content which will be very useful for college student in their projects and assignment. This website is mainly designed for the first year students who are just entering into the electronics subject, so that he/she can make use of our website to gain some basic information on electronics and it's related components and studies . This website contains information gathered from trustworthy sources like books, articles, newsletters, scientist's work and electronics experiments. This project mainly consist of developing a website that contains various information, uses , studies , research , block-diagram , circuit-diagram of various types of electronics components like resistors , capacitors , 555 Ic-timer , Oscillators , MOSFETS , Op-Amps , etc. Users on our website can access to various information on electronics and no need to install any application on pc or mobile

WEBSITE DESIGN

SCOPE AND OBJECTIVE

- Scope- useful for study of different electronics components along with full description of them. website can further be updated regularly with new informations and experiments. If you are a skilled web development professional, you will have several career options available in front of you. You may have to add a skill or two to your repertoire, but we don't think that's asking too much for a good career. Here are a few career options.
- Problem statement- to develop a website that accommodate different electronics component informations along with its circuit diagrams, flow charts, etc.
- Definition - website named ELECTROSPOT " to be hosted on internet. The aim of the project is to create a electronics website named as ELECTROSPOT which will be useful for studying various electronics components at one place.
- Aesthetic user interface, making it an enriching experience for creation of web pages.

PROBLEM STATEMENT

- The main objective of the project is to develop the website and study various components of electronics and incorporate in our website.
- Learning web development
- Hosting a website on internet
- Knowledge of different electronics components
- Front-end and back-end development
- Working on Atom Software
- HTML,CSS and JAVASCRIPT
- MongoDB software

METHODOLOGY

Web development refers to the building, creating, and maintaining of websites. It includes aspects such as web design, web publishing, web programming, and database management. It is the creation of an application that works over the internet i.e. websites.

The word Web Development is made up of two words, that is:
Web: It refers to websites, web pages or anything that works over the internet.
Development: Building the application from scratch.

Web Development can be classified into two ways:
Frontend Development
Backend Development
First we will develop the front-part of website which mainly comprises of different sections of website like search bar, tool bar, circuit-diagrams,etc. Then,we will design back-part of website like adding datas and informations of different components and with their respective working principles and algorithms

Frontend Development: The part of a website that the user interacts directly is termed as front end. It is also referred to as the 'client side' of the application.

HTML: HTML stands for HyperText Markup Language. It is used to design the front end portion of web pages using markup language. It acts as a skeleton for a website since it is used to make the structure of a website.

CSS: Cascading Style Sheets fondly referred to as CSS is a simply designed language intended to simplify the process of making web pages presentable. It is used to style our website.

JavaScript: JavaScript is a scripting language used to provide a dynamic behavior to our website.

Bootstrap: Bootstrap is a free and open-source tool collection for creating responsive websites and web applications. It is the most popular CSS framework for developing responsive, mobile-first websites. Nowadays, the websites are perfect for all the browsers (IE, Firefox, and Chrome) and for all sizes of screens (Desktop, Tablets, Phablets, and Phones).

Bootstrap 4
Bootstrap 5

Frontend Frameworks and Libraries:
AngularJS
React.js
VueJS
jQuery
Bootstrap
Material UI

Tailwind CSS
jQuery UI
Some other libraries and frameworks are: Handlebar.js Backbone.js, Ember.js etc.

Backend Development: Backend is the server side of a website. It is the part of the website that users cannot see and interact. It is the portion of software that does not come in direct contact with the users. It is used to store and arrange data.

PHP: PHP is a server-side scripting language designed specifically for web development.

Java: Java is one of the most popular and widely used programming language. It is highly scalable.

Python: Python is a programming language that lets you work quickly and integrate systems more efficiently.

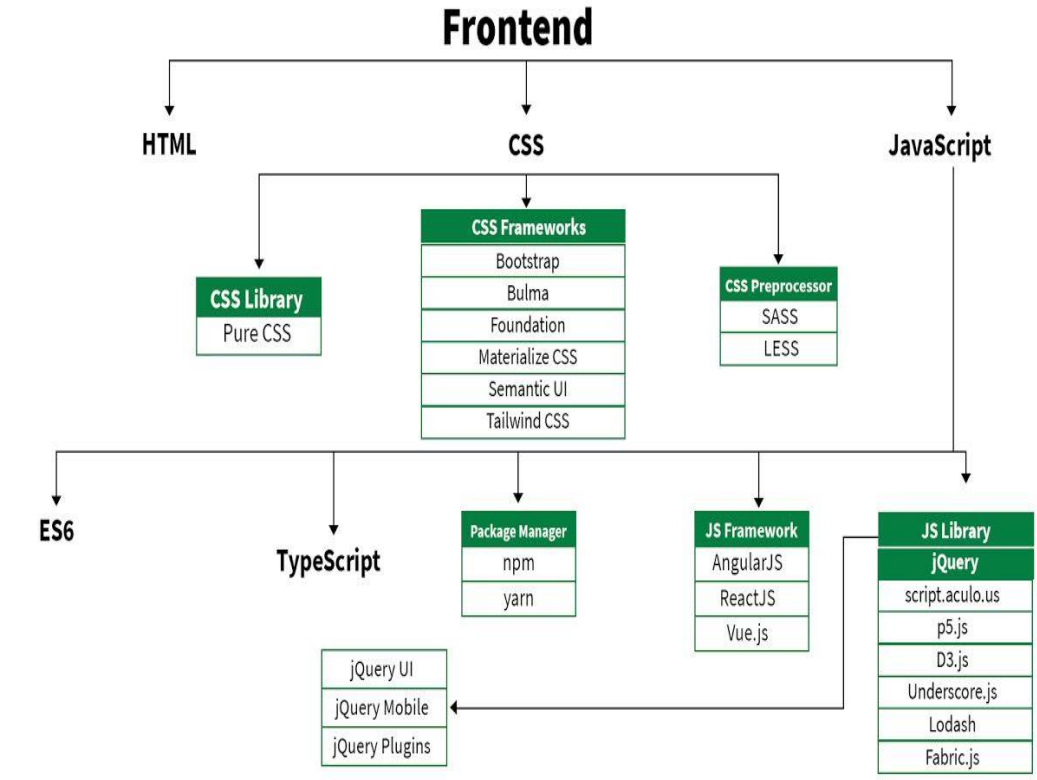
Node.js: Node.js is an open source and cross-platform runtime environment for executing JavaScript code outside a browser.

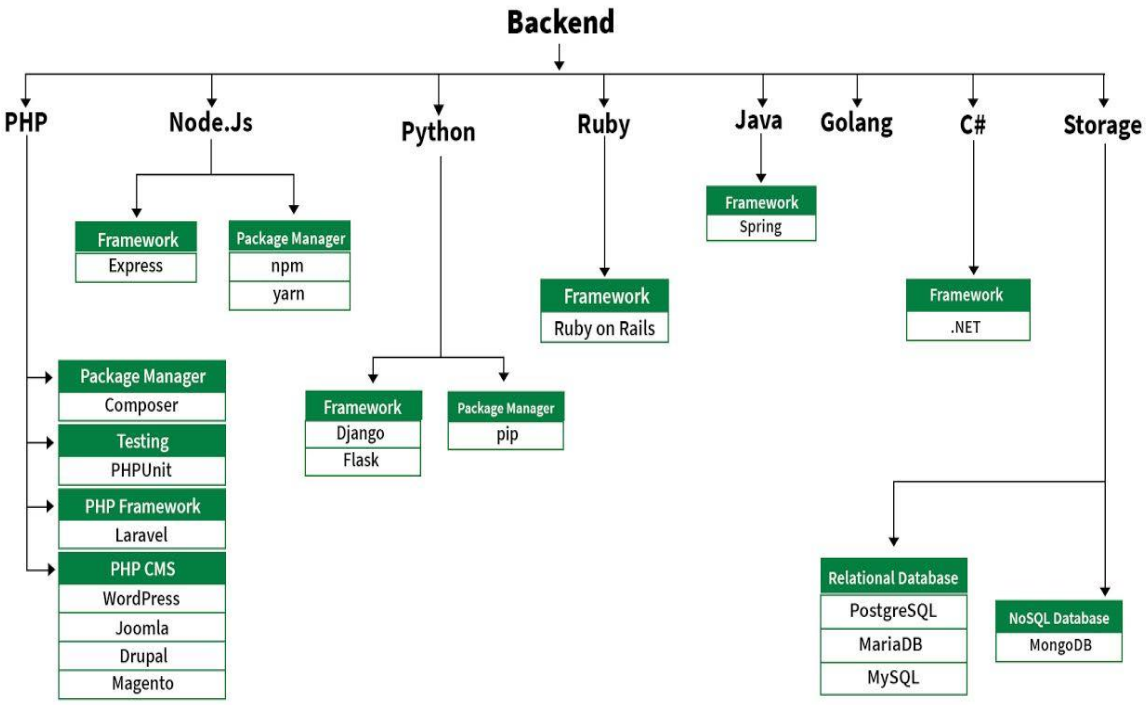
Back End Frameworks: The list of back end frameworks are: Express, Django, Rails, Laravel, Spring, etc.

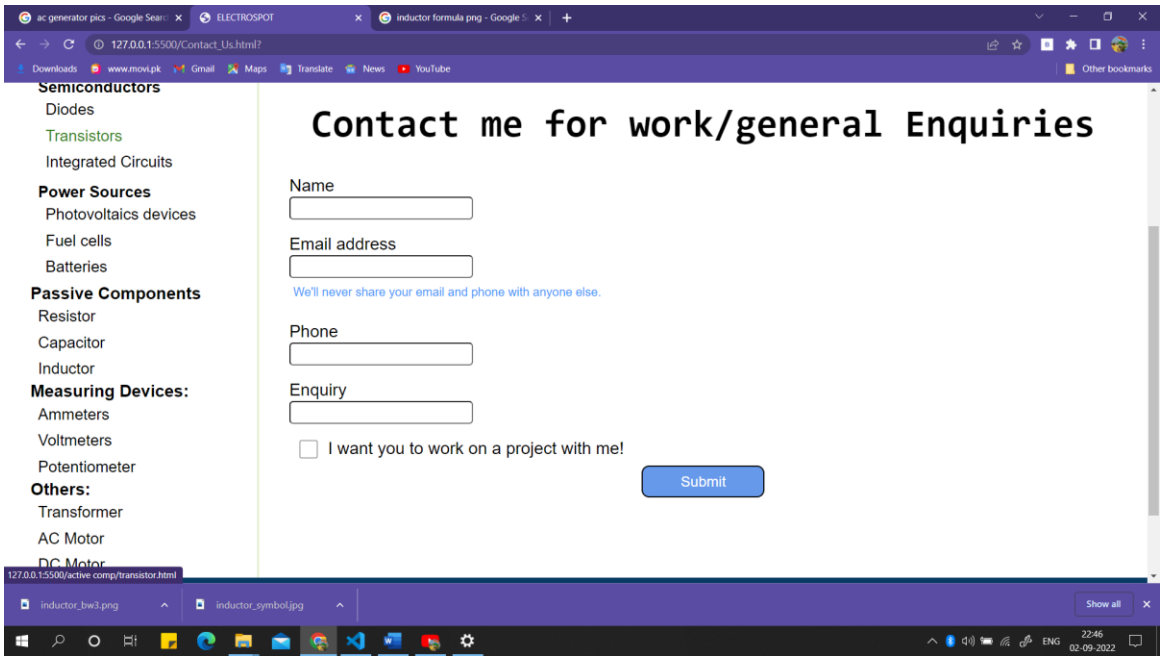
Web Development Tutorials

- HTML
- CSS
- JavaScript
- jQuery
- BootStrap
- React JS
- AngularJS
- PHP
- Node.js

FLOW-CHART


Frontend
HTML
CSS
JavaScript
CSS Library
Pure CSS
CSS Frameworks
Bootstrap
Bulma
Foundation
Materialize CSS
Semantic UI
Tailwind CSS
CSS Preprocessor
SASS
LESS
ES6
TypeScript
Package Manager
npm
yarn
JS Framework
AngularJS
ReactJS
Vue.js
JS Library
jQuery
script.aculo.us
p5.js
D3.js
Underscore.js
Lodash
Fabric.js
jQuery UI
jQuery Mobile
jQuery Plugins


Backend
PHP
Node.Js
Python
Ruby
Java
Golang
C#
Storage
Framework
Express
Package Manager
npm
yarn
Framework
Spring
Framework
Ruby on Rails
Framework
.NET
Package Manager
Composer
Testing
PHPUnit
PHP Framework
Laravel
PHP CMS
WordPress
Joomla
Drupal
Magento
Framework
Django
Flask
Package Manager
pip
Relational Database
PostgreSQL
MariaDB
MySQL
NoSQL Database
MongoDB

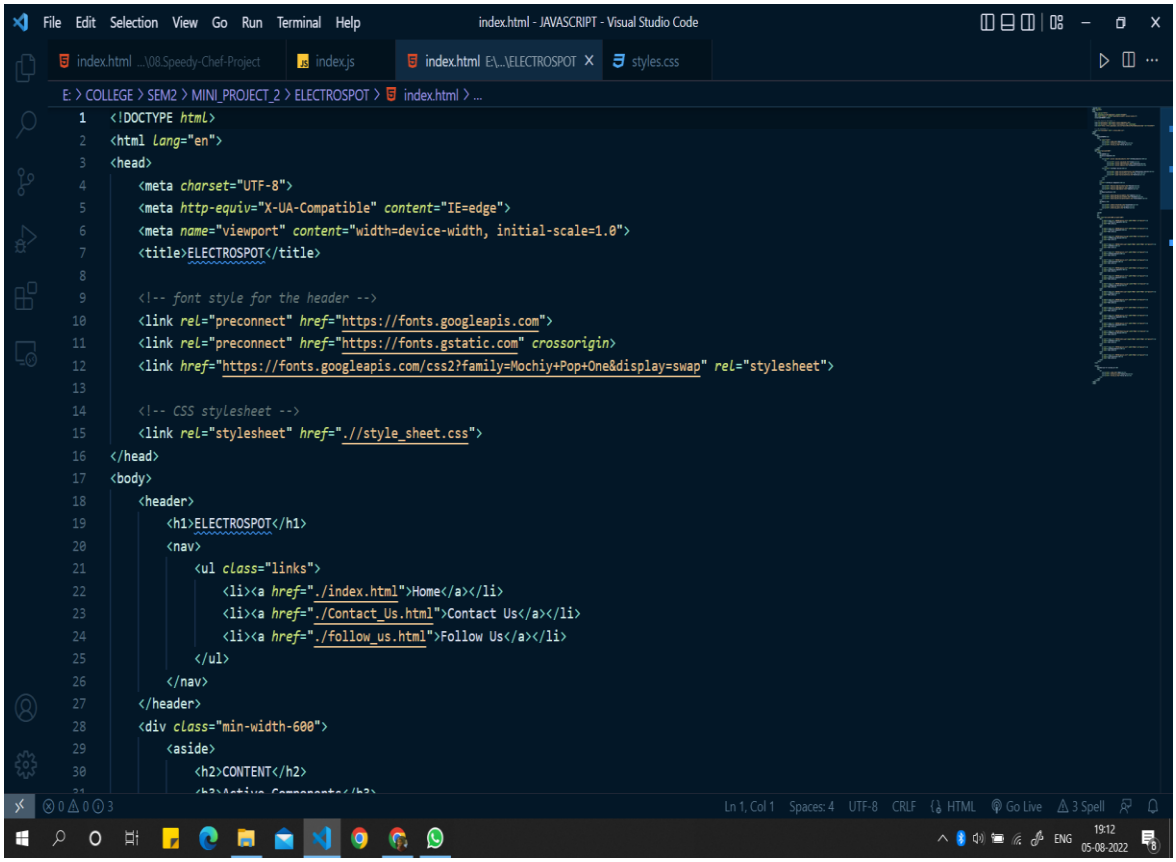


Tools used (hardware / software

The required components for the project are:

1. VS-CODE code editor /ATOM code editor
2. HTML
3. CSS
4. Java-Script
5. Mongo-DB
6. Node-JS
7. EJS
8. Bootstrap
9. Mongoose

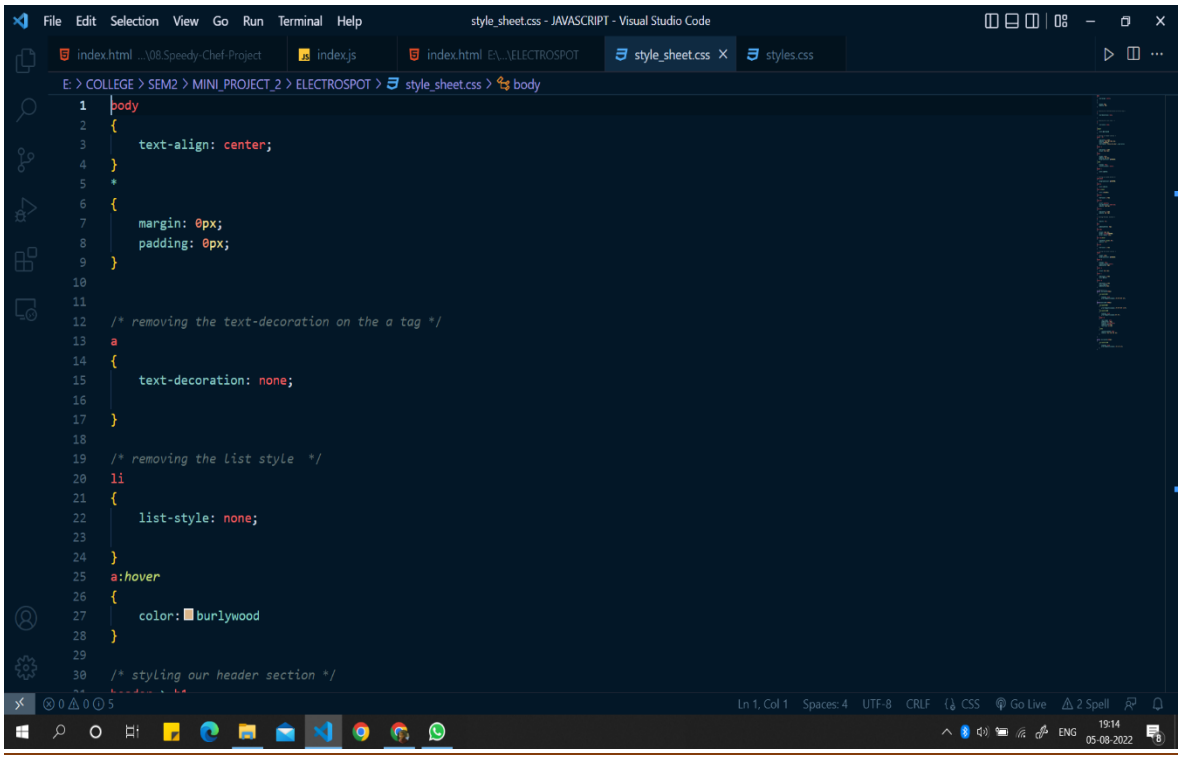
CODES



```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>ELECTROSPOT</title>

    <!-- font style for the header -->
    <link rel="preconnect" href="https://fonts.googleapis.com">
    <link rel="preconnect" href="https://fonts.gstatic.com" crossorigin>
    <link href="https://fonts.googleapis.com/css2?family=Mochiy+Pop+One&display=swap" rel="stylesheet">

    <!-- CSS stylesheet -->
    <link rel="stylesheet" href=".//style_sheet.css">
</head>
<body>
    <header>
        <h1>ELECTROSPOT</h1>
        <nav>
            <ul class="links">
                <li><a href="./index.html">Home</a></li>
                <li><a href="./Contact_Us.html">Contact Us</a></li>
                <li><a href="./follow_us.html">Follow Us</a></li>
            </ul>
        </nav>
    </header>
    <div class="min-width-600">
        <aside>
            <h2>CONTENT</h2>
```



```
body
{
    text-align: center;
}
*
{
    margin: 0px;
    padding: 0px;
}


/* removing the text-decoration on the a tag */
a
{
    text-decoration: none;

}

/* removing the list style  */
li
{
    list-style: none;

}
a:hover
{
    color: burlywood
}

/* styling our header section */
```

Conclusion

Here, we conclude that we had successfully completed our front-end development part of our mini-project. we had studied frontend and applied it in our project wisely. Now, in coming future we are learning JAVASCRIPT and will apply it on our website to add various types of information in it. Full-flagged website which comprises of details of different electronics component.

The aim of the project is to create a electronics website named as ELECTROSPOT which will be useful for studying various electronics components at one place.

Aesthetic user interface, making it an enriching experience for creation of web pages

Through this project we will learn

How to design a website and host it to world wide web and also we will learn about different electronics web sites. This project has two parts front-end and back-end development of our website.

Front-end development consist up of languages like HTML and CSS. The main job of html and css are used for designing of our website and give it an aesthetic feel of a professional website. Then ,in back-end development languages like javascript, mongoose, node JS is being used for defining and adding content to our website .Both front-end and back-end development gives us the final look of our website

References

- Web development course by UDEMY taught by Angela Yu
- Electronics hub
- Circuits digest
- Circuit today
- Electrogigs