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|  | **HINDUSTHAN COLLEGE OF ENGINEERING AND TECHNOLOGY**  **COIMBATORE – 641032**  **(AN AUTONOMOUS INSTITUTION)** |  |

**A PROGRAM DEVELOPMENT ACTIVITY**

**REPORT**

***Submitted by***

**ABRAHAM PRABAKAR. A (20115001)**

of

Artificial Intelligence and Machine Learning Department

***in partial fulfillment to completion of assignment for the open elective course entitled***

**“19MT7401 – Project Management”**

As prescribed for the

VII Semester

During the academic year **2023 – 2024**

**OCTOBER 2023**

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|  | **HINDUSTHAN COLLEGE OF ENGINEERING AND TECHNOLOGY**  **COIMBATORE – 641032**  **(AN AUTONOMOUS INSTITUTION)** |  |

**Department of Mechatronics Engineering**

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Certified that this is the report of program development activity work done partially

By

**ABRAHAM PRABAKAR. A (20115001)**

For the open elective course

**19MT7401 – PROJECT MANAGEMENT**

As prescribed for the **VII Semester**

During the academic year **2023 - 2024.**

Submitted for the internal assessment conducted during July2023-October 2023

**Faculty in-Charge Head of the Department**

**Dr. MADHU SUDHANAN R**

**Place:** Coimbatore

**Date:** / / 2023

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**ABSTRACT**

Experience the future of web portfolios with our cutting-edge creation - a dynamic website portfolio crafted using a powerful combination of HTML, CSS, JavaScript, and Python. Our portfolio seamlessly blends creativity and functionality, offering a visually stunning and user-friendly platform to showcase your talents and accomplishments. Harness the potential of these four technologies to create an interactive and engaging online presence that stands out in the digital landscape.

HTML lays the foundation, providing the structure and content for your portfolio. CSS adds the visual flair, ensuring that your portfolio not only functions smoothly but also looks exceptional. JavaScript brings interactivity to the forefront, allowing you to incorporate dynamic elements, animations, and smooth transitions, enhancing the overall user experience. But what sets our portfolio apart is the integration of Python. Leverage the power of Python to incorporate data-driven features, dynamic content updates, and personalized user experiences. From data visualization to content management, Python empowers you to make your portfolio truly unique and functional.

JavaScript introduces interactivity, allowing you to create engaging user experiences that captivate your visitors. From smooth page transitions to interactive project showcases, JavaScript empowers you to make a lasting impression. Meanwhile, Python, a versatile and powerful language, brings a new dimension to your portfolio. You can integrate data-driven elements such as dynamic charts, live data feeds, or even AI-driven features that respond to user input intelligently. This level of personalization and data-driven content sets your portfolio apart, making it a truly dynamic and evolving representation of your skills.

With our HTML, CSS, JS, and Python portfolio, you can effortlessly manage your content, ensuring that your latest achievements and projects are always in the spotlight. Moreover, it's a perfect platform to demonstrate your proficiency in these technologies, showing potential clients or employers that you have a grasp of the latest trends in web development. Whether you're a seasoned professional or just starting your journey, our dynamic portfolio website offers a powerful and flexible canvas to paint your online presence and tell your unique story to the world.

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**LIST OF ABBREVIATIONS**

|  |  |
| --- | --- |
| **ABBREVIATIONS** | **MEANING** |
| HTML | Hyper Text Markup Language |
| CSS | Cascading Style Sheets |
| JS | Javascript |
| UI | User Interface |
| UX | User Experience |
| HTTP | HyperText Transfer Protocol |
| IDE | Integrated Development Environment |
| URL | Uniform Resource Locator |
| PYTHON | High Level Programming Language |
| FLASK | High Level Python Web Framework |
| VENV | Virtual Environment |

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**CHAPTER - 1**

**INTRODUCTION OF APPLICATION**

Experience the future of web portfolios with our cutting-edge creation - a dynamic website portfolio crafted using a powerful combination of HTML, CSS, JavaScript, and Python. Our portfolio seamlessly blends creativity and functionality, offering a visually stunning and user-friendly platform to showcase your talents and accomplishments. Harness the potential of these four technologies to create an interactive and engaging online presence that stands out in the digital landscape. HTML lays the foundation, providing the structure and content for your portfolio. CSS adds the visual flair, ensuring that your portfolio not only functions smoothly but also looks exceptional. JavaScript brings interactivity to the forefront, allowing you to incorporate dynamic elements, animations, and smooth transitions, enhancing the overall user experience. But what sets our portfolio apart is the integration of Python. Leverage the power of Python to incorporate data-driven features, dynamic content updates, and personalized user experiences. From data visualization to content management, Python empowers you to make your portfolio truly unique and functional.

**1.1 STATEMENT OF THE PROBLEM**

In today's digital landscape, creating a compelling online presence is essential. However, existing solutions for personal portfolio websites are often either too generic or require advanced technical skills, limiting accessibility.

To overcome these challenges, the project aims to develop a dynamic and user-friendly portfolio website using Flask in Python. This website will allow individuals to effectively showcase their skills, projects, and personal brand while prioritizing user experience and customization.

**1.2 OBJECTIVE OF THE PROJECT**

1. **Develop a Dynamic Portfolio Website:** The primary objective is to design and develop a dynamic portfolio website using Django in Python, providing a platform for the creator to showcase their skills, projects, and personal branding effectively.
2. **User-Centric Design**: Create a UI/UX design that ensures an intuitive and visually appealing user experience, making it easy for visitors to navigate and explore the website's content.
3. **Customization and Versatility:** Enable easy customization of the portfolio website to accommodate various professional backgrounds and creative disciplines, allowing users to tailor their online presence to their specific needs.
4. **Content Management:** Implement a content management system (CMS) that allows the creator to update and add new projects, skills, and information without requiring in-depth technical knowledge.
5. **Responsive Design:** Ensure the http website is responsive and adapts seamlessly to different devices, including desktops, tablets, and mobile phones, to reach a wider audience.
6. **Technical Proficiency Showcase:** Provide a dedicated section for the creator to highlight their technical skills and proficiency, reinforcing their expertise in relevant technologies.
7. **Project Showcase:** Create a visually engaging project showcase section, allowing the creator to present a diverse range of projects with detailed descriptions and visuals.
8. **About Me Page:** Develop an "About Me" page that offers insight into the creator's background, education, interests, and personal branding.
9. **Contact Information:** Include a contact page with clear and accessible contact information, enabling visitors to connect with the creator easily.
10. **Future Plans and Growth:** Incorporate a section for the creator to outline future plans for the website, demonstrating a commitment to continuous improvement and innovation.

**1.3 PURPOSE OF THE PROJECT**

The primary purpose of this project is to provide individuals, including professionals and creatives from diverse backgrounds, with a powerful and accessible platform to establish a compelling online presence and showcase their skills, projects, and personal brand effectively. This purpose encompasses several key objectives:

1. **Empowerment:** To empower individuals with varying levels of technical expertise to create and manage their own personalized portfolio websites, eliminating the barriers to entry and democratizing access to the digital realm.
2. **User Engagement:** To engage and captivate website visitors through a user-centric design that not only conveys information but also offers an enjoyable and intuitive browsing experience.
3. **Customization:** To offer a high degree of customization, allowing users to tailor their portfolio websites to their unique professional and creative identities, thereby facilitating self-expression and personal branding.
4. **Content Management:** To simplify content management through the integration of a user-friendly content management system (CMS), enabling users to update and expand their portfolios effortlessly.
5. **Technical Proficiency Showcase**: To provide a dedicated platform for users to showcase their technical skills and expertise, reinforcing their credibility and proficiency in relevant fields.
6. **Project Showcase:** To create an engaging and visually appealing project showcase, allowing users to present their work comprehensively, share their achievements, and connect with potential collaborators or employers.
7. **Networking and Contact:** To facilitate networking and professional connections by including a contact page with accessible contact information, encouraging collaboration and communication.
8. **Adaptation and Growth:** To support users in planning for the future by incorporating a section for outlining their aspirations and future development plans for their portfolios, demonstrating a commitment to continuous growth.
9. **Security and Privacy:** To prioritize the security and data privacy of users, setting up ssl for url of the website.

**CHAPTER - 2**

**PROJECT REQUIREMENTS**

**2.1 FRONT END TOOLS**

* HTML
* CSS
* JS
* BOOTSTRAP
* JQUERY

**2.2 BACK END TOOLS**

* FLASK WEB FRAMEWORK
* PYTHON
* PIP
* VENV
* HEROKU(Deployment Server)
* VSCODE(IDE)

**2.3 PROGRAMMING LANGUAGE DESCRIPTION**

**Flask Web Framework:** Flask is a lightweight and flexible web framework for Python, designed to create web applications quickly and efficiently. It simplifies web development by offering essential tools and libraries for building web-based applications and APIs.

**Python:** Python is the programming language that Django is built on. It's used for writing server-side code, handling business logic, and interacting with the database.

**HTML (Hypertext Markup Language):** HTML is the backbone of web pages, defining the structure and content of your website. It's essential for creating elements like headings, paragraphs, links, images, and forms.

**CSS (Cascading Style Sheets):** CSS is used for styling your website's layout, including fonts, colors, spacing, and responsive design for different screen sizes.

**JavaScript:** JavaScript adds interactivity and dynamic behavior to your website. You can use JavaScript for features like form validation, image sliders, and interactive elements.

**Bootstrap:** A popular CSS framework that provides pre-designed UI components and responsive layout grids.

**CHAPTER - 3**

**PROGRAM DESIGN AND DEVELOPMENT**

**3.1 ALGORITHM:**

**1. Project Setup:**

- Create folders for HTML, CSS, JS, and Python.

- Build a basic HTML template.

**2. Layout Design:**

- Structure the portfolio with sections like intro, projects, skills.

- Apply CSS for a visually appealing design.

**3. Content & Navigation:**

- Add personal info in HTML.

- Include navigation menu with HTML/CSS.

**4. Project Showcase:**

- Design project cards.

- Use JS for interactivity (filters, sliders).

**5. Dynamic Elements (Optional):**

- Integrate Python (Flask) for dynamic content.

**6. Interactivity:**

- Implement JS features (animations, form validation).

**7. Mobile Responsiveness:**

- Make the portfolio responsive with CSS media queries.

**8. Testing & Optimization:**

- Test across browsers/devices.

- Optimize for speed.

**9. Deployment:**

- Deploy on hosting platform (e.g., Heroku, GitHub Pages).

**10. Final Checks:**

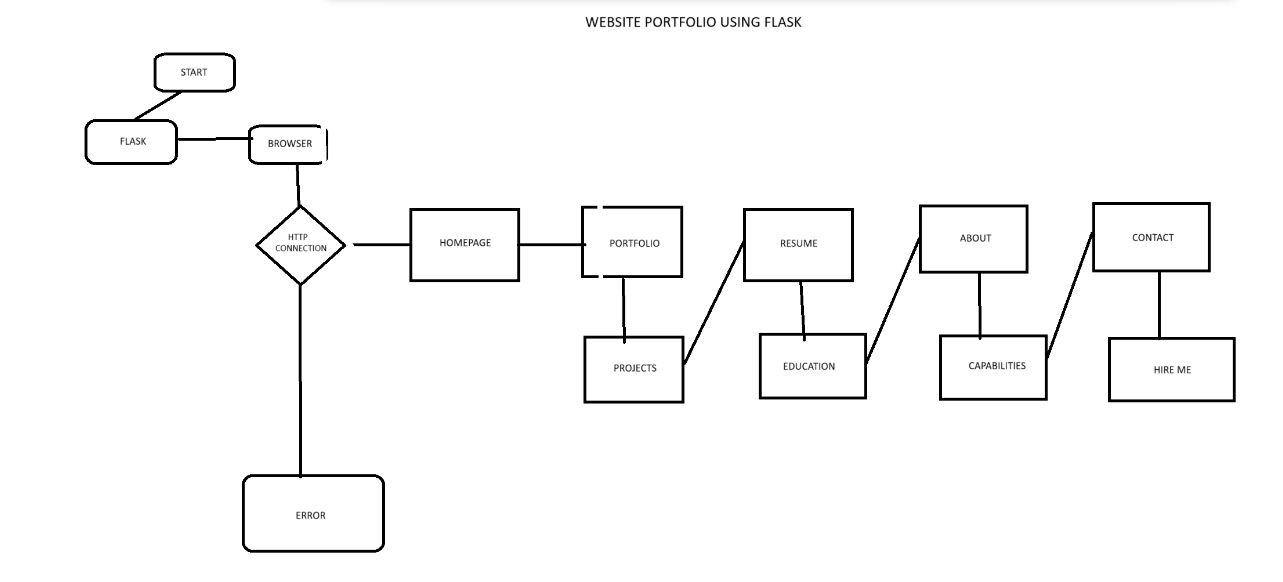
**-** Confirm portfolio works live.

**11. Maintenance & Feedback:**

- Update content and code.

- Gather user feedback for improvements.

**3.2 FLOW CHART**

****

**3.3 CODING WITH DESCRIPTION**

**3.3.1 APP.PY**

from flask import Flask, render\_template ,request

import time

import smtplib

import os

app = Flask(\_\_name\_\_)

def mail(email, pssd, mssg):

server = smtplib.SMTP("abraham.prabakar777@gmail.com", 587)

server.starttls()

server.login(email, pssd)

server.sendmail(email, 'abraham.prabakar777@gmail.com', mssg)

server.quit()

@app.route('/')

def home\_page():

return render\_template("index.html")

def cleanMsg(data):

name= data.get('name')

email= data.get('email')

msg=data.get('message')

message = f"""From: {name} <{email}>

Subject: New Message On Our Official Website

{msg}

"""

return message

@app.route('/submit\_form',methods=['GET', 'POST'])

def form():

if request.method == 'POST':

data = request.form.to\_dict()

msg=cleanMsg(data)

password=os.environ.get('EMAIL\_PASS')

mail('abraham.prabakar777@gmail.com', password, msg)

return render\_template("index.html",code="test()")

else:

return f"Something Not Right "

@app.errorhandler(404)

def not\_found(e):

return render\_template("404.html")

if \_\_name\_\_ == '\_\_main\_\_':

app.run(debug=True)

**3.3.2 INDEX.HTML**

<!DOCTYPE html>

<html lang="en">

<head>

<title>Abraham Portfolio</title>

<meta charset="utf-8">

<meta name="viewport" content="width=device-width, initial-scale=1, shrink-to-fit=no">

<link rel="stylesheet" href="../static/animate.css">

<link rel="stylesheet" href="../static/flexslider.css">

<link rel="stylesheet" href="../static/fonts/icomoon/style.css">

<link href="../static/assets/favicon.ico" rel="icon">

<link rel="shortcut icon" href="{{ url\_for('static', filename='favicon.ico') }}">

<script src="https://ajax.googleapis.com/ajax/libs/jquery/3.5.1/jquery.min.js"></script>

<link rel="stylesheet" href="../static/bootstrap.css">

<link rel="stylesheet" href="../static/style.css">

<link href="https://fonts.googleapis.com/css2?family=Permanent+Marker&display=swap" rel="stylesheet">

<link href="https://fonts.googleapis.com/css?family=Nunito+Sans:200,300,400,700" rel="stylesheet">

<link href="https://fonts.googleapis.com/css2?family=Audiowide&display=swap" rel="stylesheet">

<script src="https://cdn.jsdelivr.net/npm/sweetalert2@10"></script>

<script src="https://cdn.jsdelivr.net/npm/promise-polyfill@8/dist/polyfill.js"></script>

<link rel="stylesheet" href="@sweetalert2/theme-dark/dark.css">

<script src="sweetalert2/dist/sweetalert2.min.js"></script>

</head>

<body data-spy="scroll" data-target="#pb-navbar" data-offset="200">

<nav class="navbar navbar-expand-lg site-navbar navbar-light bg-light" id="pb-navbar">

<div class="container">

<button class="navbar-toggler" type="button" data-toggle="collapse" data-target="#navbarsExample09" aria-controls="navbarsExample09" aria-expanded="false" aria-label="Toggle navigation">

<span class="navbar-toggler-icon"></span>

</button>

<div class="collapse navbar-collapse justify-content-md-center" id="navbarsExample09">

<ul class="navbar-nav">

<li class="nav-item"><a class="nav-link" href="#section-home">Home</a></li>

<li class="nav-item"><a class="nav-link" href="#section-portfolio">Portfolio</a></li>

<li class="nav-item"><a class="nav-link" href="#section-resume">Resume</a></li>

<li class="nav-item"><a class="nav-link" href="#section-about">About</a></li>

<li class="nav-item"><a class="nav-link" href="#section-contact">Contact</a></li>

</ul>

</div>

</div>

</nav>

<section class="site-hero" style="background-image: url(../static/assets/images/image\_1.jpg);" id="section-home" data-stellar-background-ratio="0.5">

<div class="container">

<div class="row intro-text align-items-center justify-content-center" >

<div class="col-md-10 text-center pt-5">

<h1 class="site-heading site-animate" style=" font-size: 80px; padding-bottom: 250px;" >Hello, I'm</h1>

<a href="#" class="glitch" data-glitch="Abraham Prabakar">Abraham Prabakar</a>

<span class="text\_1"><b>Data Analyst, Python Programer</b> </span>

</span>

<STYle>

@keyframes typewriter {

0%, 100% {

width: 0;

}

20%, 80% {

width: 12em;

}

}

@keyframes caret {

0%, 100% {

opacity: 0;

}

80% {

opacity: 1;

}

}

@keyframes text2 {

0%, 50%, 100% {

width: 0;

}

60%, 90% {

width: 11em;

}

}

@keyframes text1 {

0%, 50%, 100% {

width: 0;

}

10%, 40% {

width: 18em;

}

}

.text\_1 {

animation: text1;

}

.text\_2 {

animation: text2;

}

.text\_0 {

overflow: hidden;

white-space: nowrap;

animation: typewriter;

display: inline-block;

position: relative;

animation-duration: 10s;

animation-timing-function: steps(25, end);

font-family: 'Audiowide', cursive;

animation-iteration-count: 0;

}

.text\_0::after {

content: "|";

position:relative;

color:green;

right: 0;

animation: caret infinite;

animation-duration: 1s;

animation-timing-function: steps(1, end);

}

.text\_1, .text\_2 {

overflow: hidden;

font-size: 35px;

color:white;

white-space: nowrap;

display: inline-block;

position: relative;

animation-duration: 15s;

animation-timing-function: steps(25, end);

animation-iteration-count: infinite;

}

.text\_1::after, .text\_2::after {

content: "\_";

position: absolute;

right: 0;

color:green;

animation: caret infinite;

animation-duration: 1s;

animation-timing-function: steps(1, end);

}

</STYle>

</div>

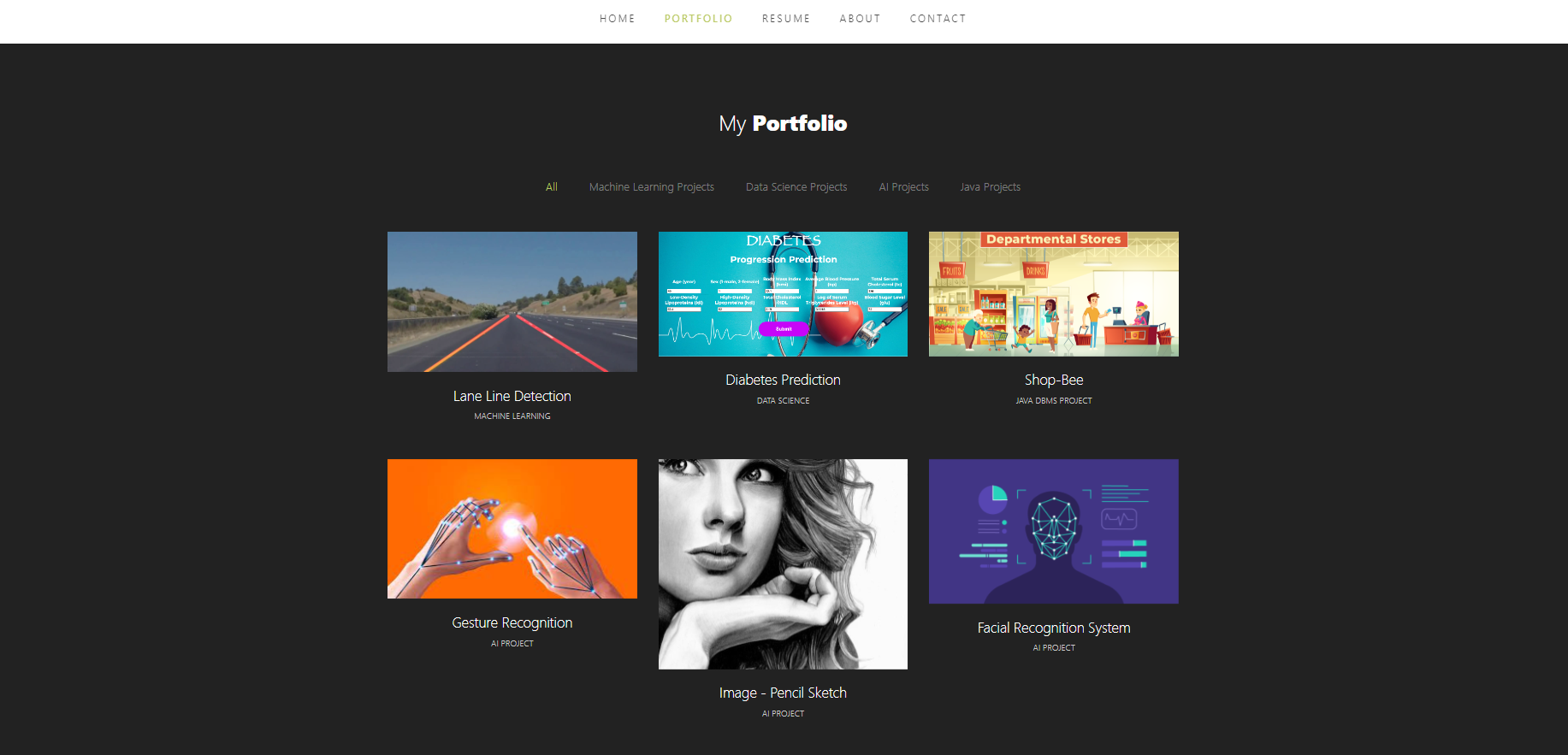
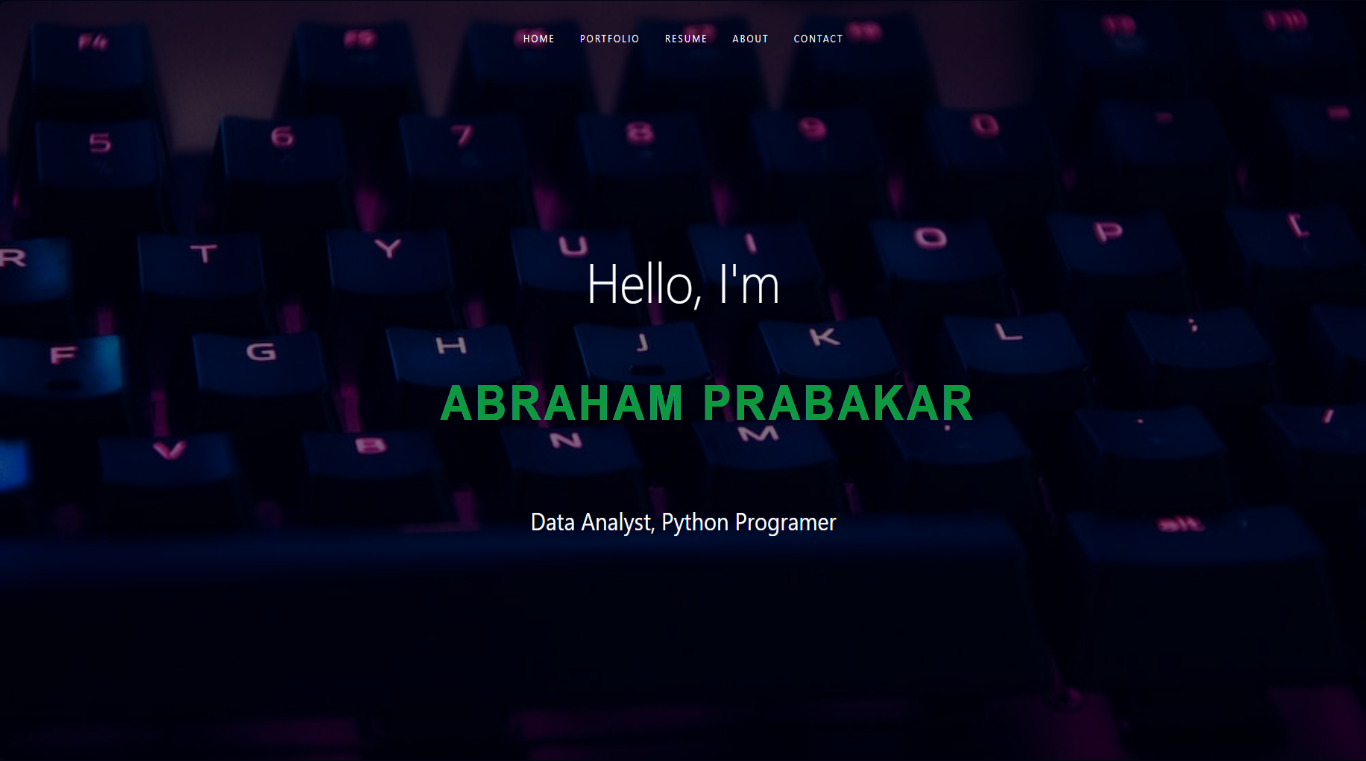
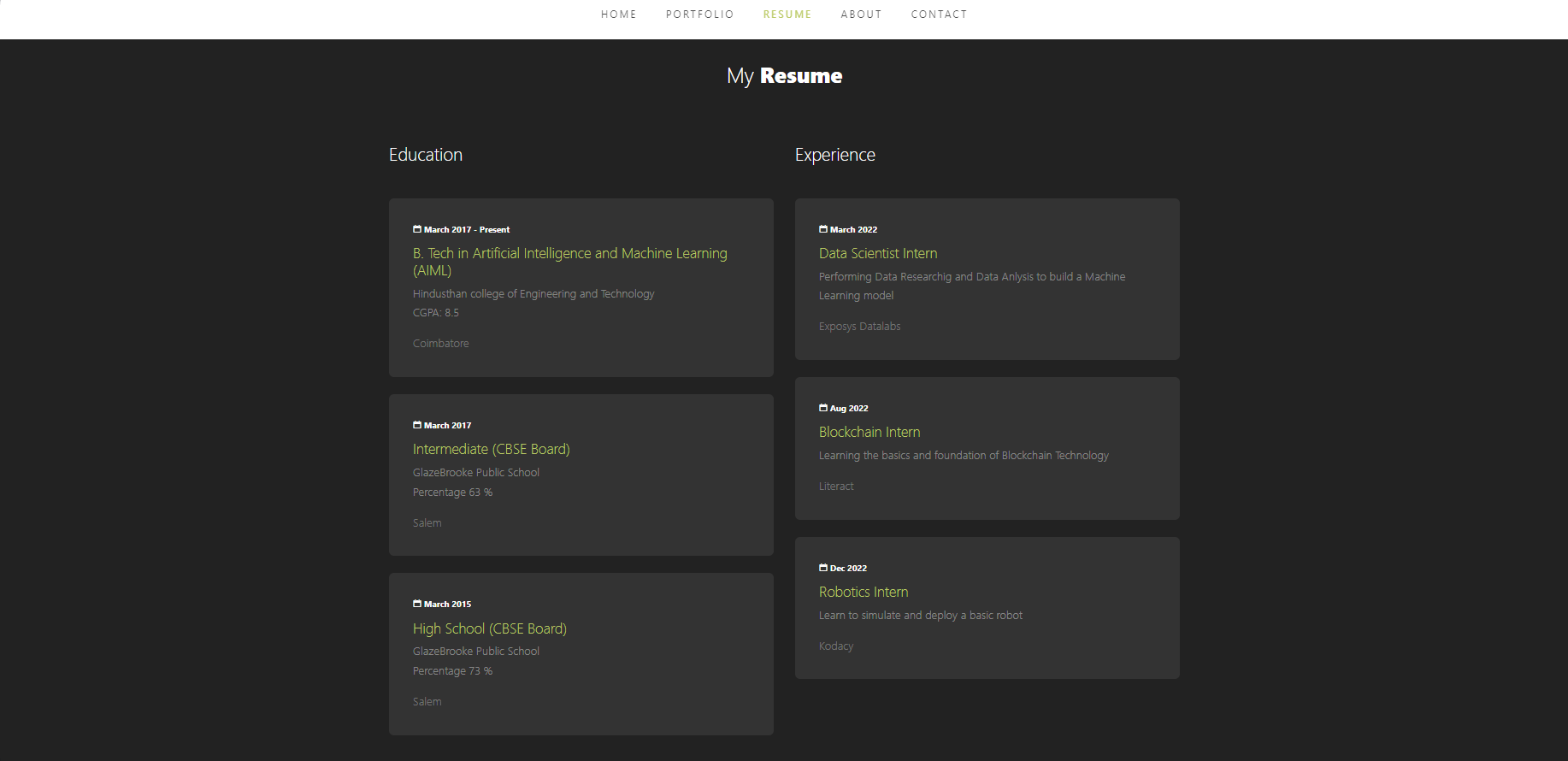
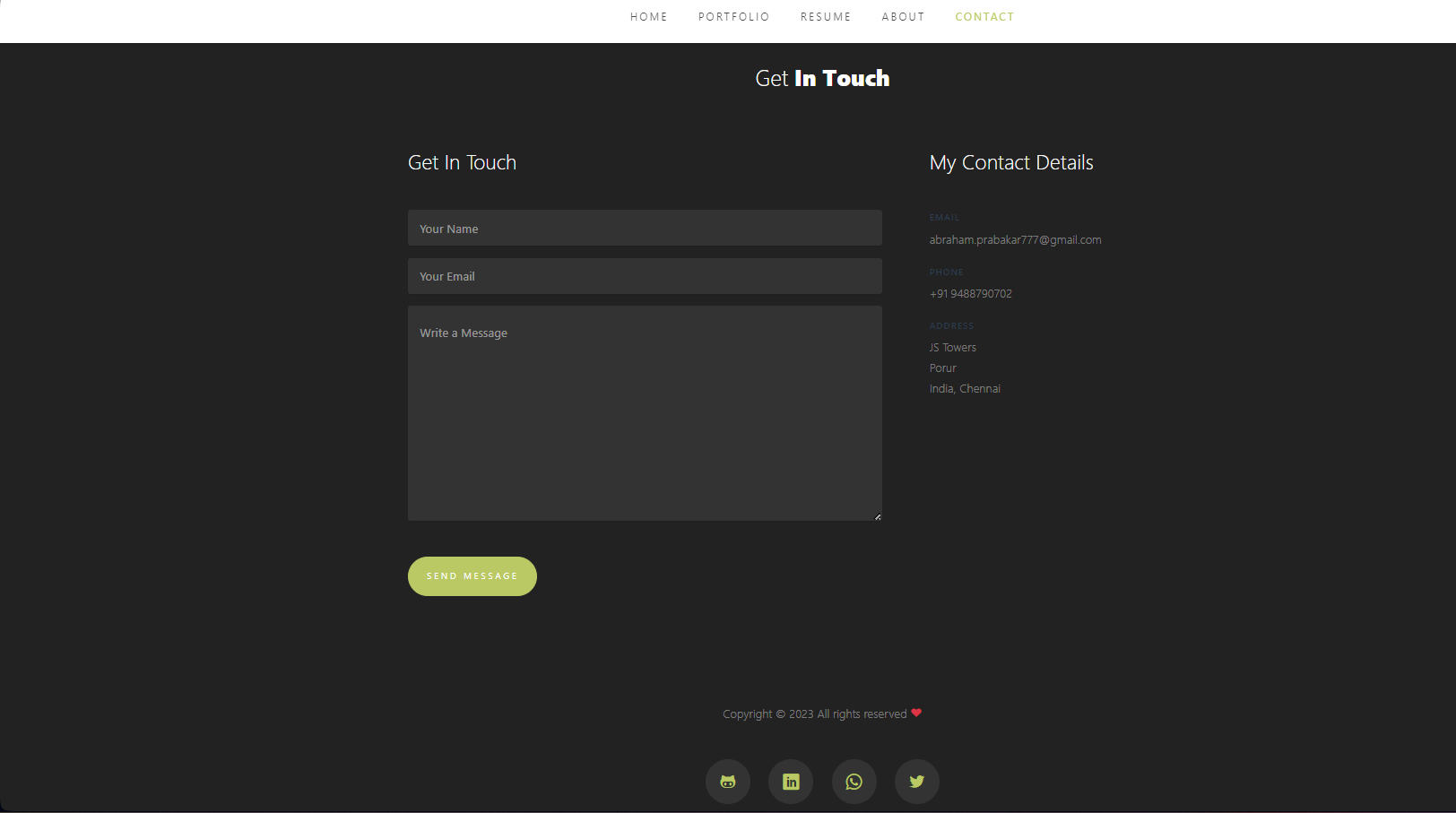
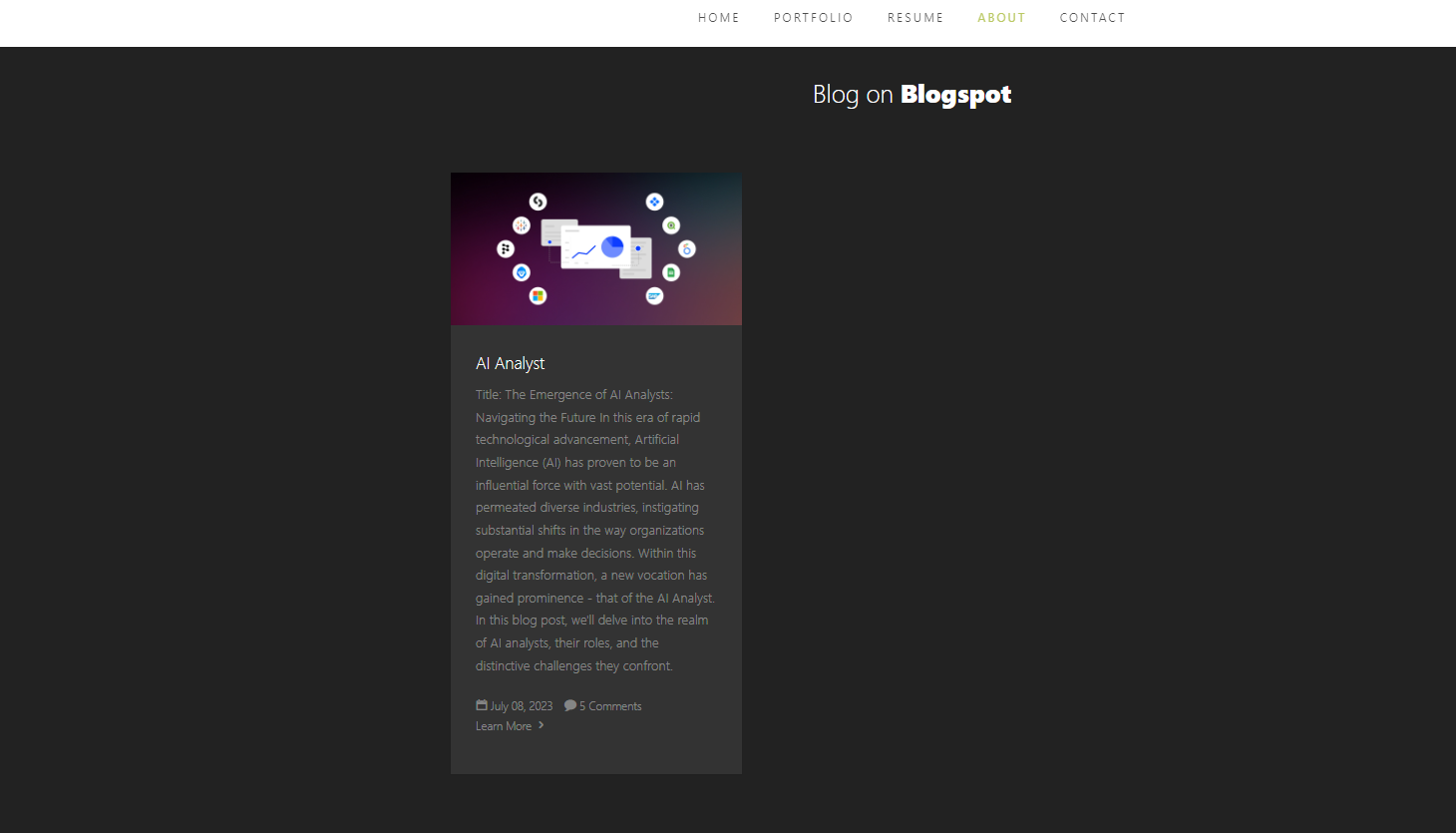
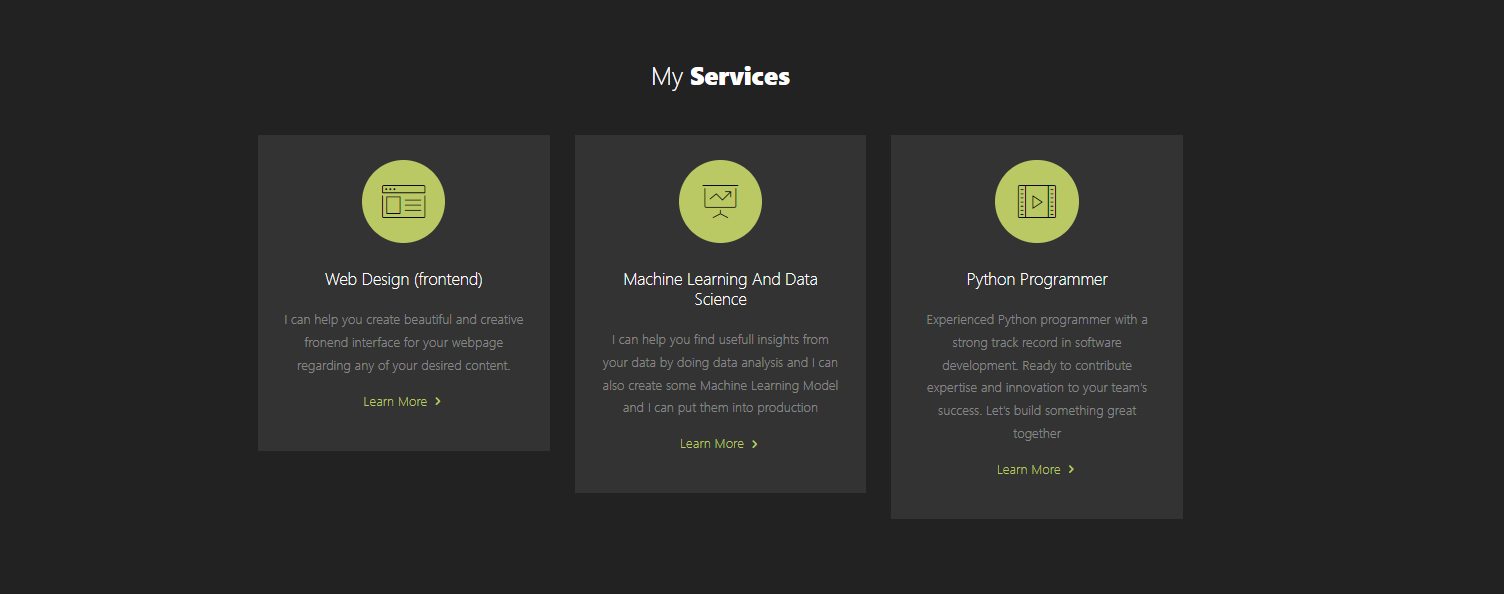
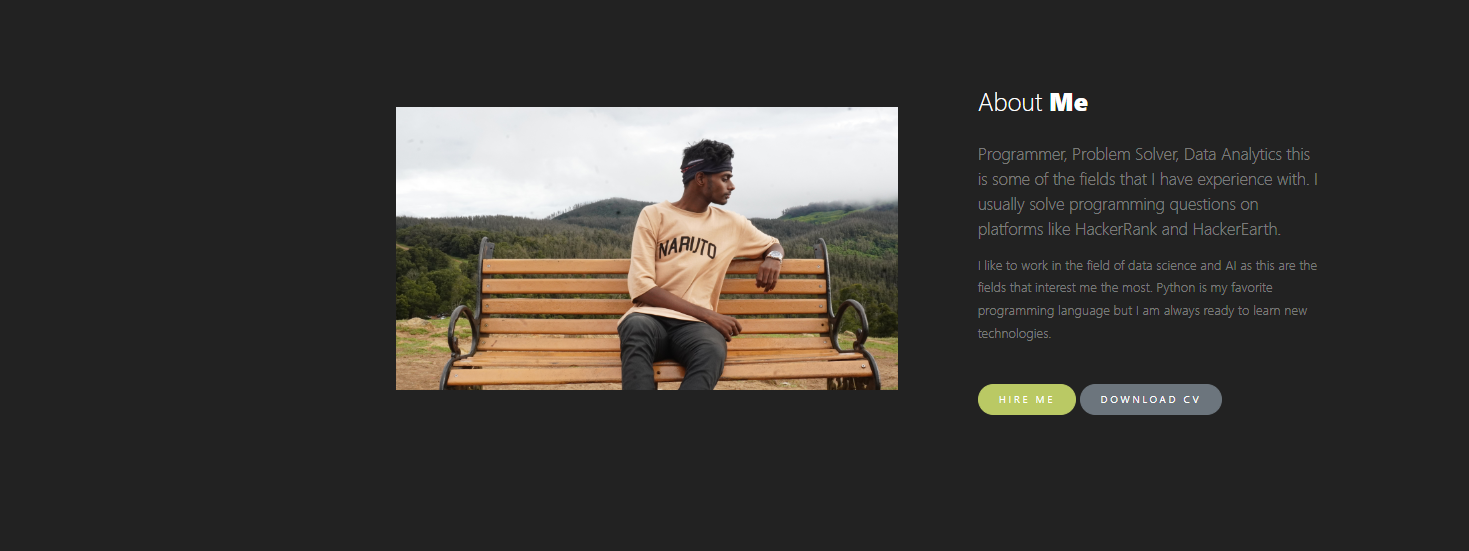
</div>

</div>    </section>

**CHAPTER - 4**

**IMPLEMENTATION AND FUTURE SCOPE**

**IMPLEMENTATION:**

********

**FUTURE SCOPE:**

* **Multilingual Support:**

Offer support for multiple languages to reach a broader audience.

* **E-commerce Integration:**

If applicable, integrate e-commerce features for selling digital products or services.

* **Advanced User Profiles:**

Allow users to upload profile pictures.

Implement social media integration for sharing and networking.

* **Analytics and Monitoring:**

Add analytics tools (e.g., Google Analytics) to track website traffic and user behavior.

Implement real-time monitoring and error tracking for proactive issue resolution.

* **Community and Collaboration Features:**

Create a forum or discussion board for users to interact and collaborate.

Enable collaboration on projects with multiple contributors.

* **Enhanced User Experience:**

Implement user-friendly features like search functionality or filtering for projects. Integrate a blog section for users to share articles or updates.

Add user comments and ratings for projects.

* **Content Management System (CMS):**

Develop a user-friendly CMS for easier content updates.

Include a WYSIWYG editor for rich content creation.

**CHAPTER - 5**

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| [4] | <https://getbootstrap.com/docs/5.0/getting-started/introduction/> , Bootstrap Documentation |
| [5] | <https://developer.mozilla.org/en-US/> , Mozilla Developer Network (MDN) |
| [6] | <https://www.w3schools.com/> , W3Schools |
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| [10] | <https://www.udemy.com/topic/web-development/> , Udemy Web Development Courses |