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St. MOTHER THERESA ENGINEERING COLLEGE

COMPUTER SCIENCE ENGINEERING

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Completed the project named as

Phase 5

FRONT END TECHNOLOGY

PORTFOLIO WEBSITE

SUBMITTED BY:

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Phase 5 — Project Demonstration & Documentation

The fifth and final phase of the project involves the **demonstration**, **documentation**, and **submission** of the completed Portfolio Website. This stage consolidates the work done in earlier phases from requirement analysis and design to implementation and deployment and presents it as a complete, functioning system.

The Portfolio Website is now ready for demonstration, supported by comprehensive documentation, technical setup instructions, screenshots, and a detailed report. The primary goal of this phase is to ensure that the website is **fully functional**, **user-friendly**, and **professionally presented** for evaluators, recruiters, or peers.

1. Final Demonstration Walkthrough

The **final demo walkthrough** plays a vital role in showcasing the working model of the website. It allows users and evaluators to explore the website's key functionalities, user interface, and responsiveness.

Demonstration Objectives:

- To verify that all major features are implemented and working as intended.
- To highlight the responsiveness and visual design of the website.
- To showcase user interaction and backend data handling.
- To demonstrate ease of use for non-technical users through WordPress customization.

Step-by-Step Demo Flow:

1. **Homepage Overview:**
   The demonstration begins on the homepage, where the user is greeted with a clean layout featuring a profile image, name, tagline, and navigation menu. This section demonstrates the use of headers, banners, and animations to capture attention.
2. **About Page:**
   The presenter navigates to the About section, which provides a structured overview of the individual's biography, educational background, certifications, and technical skills. The smooth transitions and readability are highlighted.

3. **Portfolio Page:**
   This section displays various projects using image grids and short descriptions. Each project card links to either a GitHub repository or a live demo. The responsive layout ensures that the project gallery adjusts seamlessly to different screen sizes.
4. **Contact Page:**
   The demonstration continues with the contact page, featuring a functional

contact form (Name, Email, and Message). Submitting the form successfully triggers a backend process that sends an email to the website owner using the configured SMTP settings.

5. **Admin Dashboard:**
   The presenter logs into the WordPress dashboard to demonstrate how easily new posts, projects, and content can be added or modified. This ensures that even users with minimal technical skills can manage the website effectively.
6. **Responsive View Check:**
   The demo concludes with a mobile and tablet view test, confirming that the website maintains its structure, fonts, and elements across all devices.

The final walkthrough confirms that the website is **functional, aesthetic, and accessible**, aligning with modern web standards.

2. Project Report

The **final project report** acts as an official record of the project lifecycle. It compiles all the work done across multiple phases and provides a complete understanding of the project's purpose, design, implementation, and results.

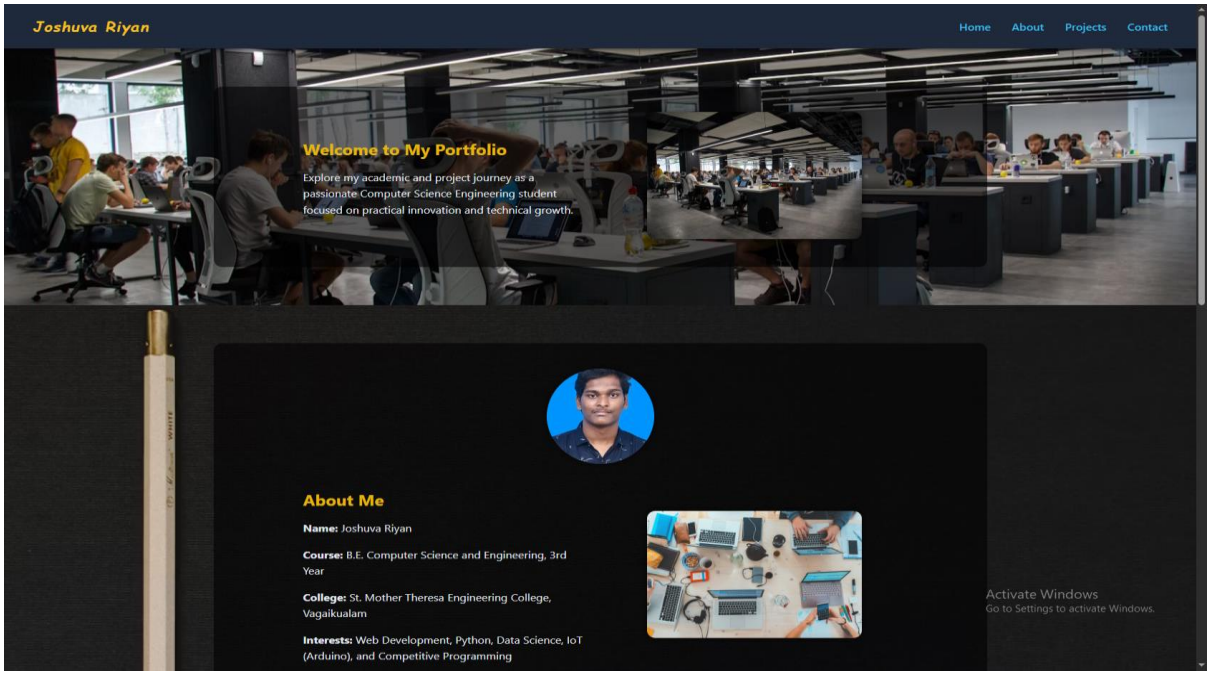
Contents of the Project Report:

1. **Title Page** – Project title, author name, roll number, department, and institution details.
2. **Abstract** – A concise summary of the project objectives, tools used, and outcomes.
3. **Phase 1: Requirement Analysis** – Problem identification, user needs, and scope.
4. **Phase 2: Design & Architecture** – UI wireframes, theme selection, and database design.
5. **Phase 3: Implementation** – Coding process, feature setup, and testing results.
6. **Phase 4: Enhancement & Deployment** – Added functionalities, optimization, and hosting.
7. **Phase 5: Demonstration & Documentation** – Final testing, screenshots, GitHub setup, and submission.
8. **Conclusion & Future Scope** – Summary of achievements and possible future improvements.

Each section of the report is written in detail, including figures, screenshots, and testing outcomes to give a complete picture of the project.

3. Screenshots and API Documentation

Screenshots:



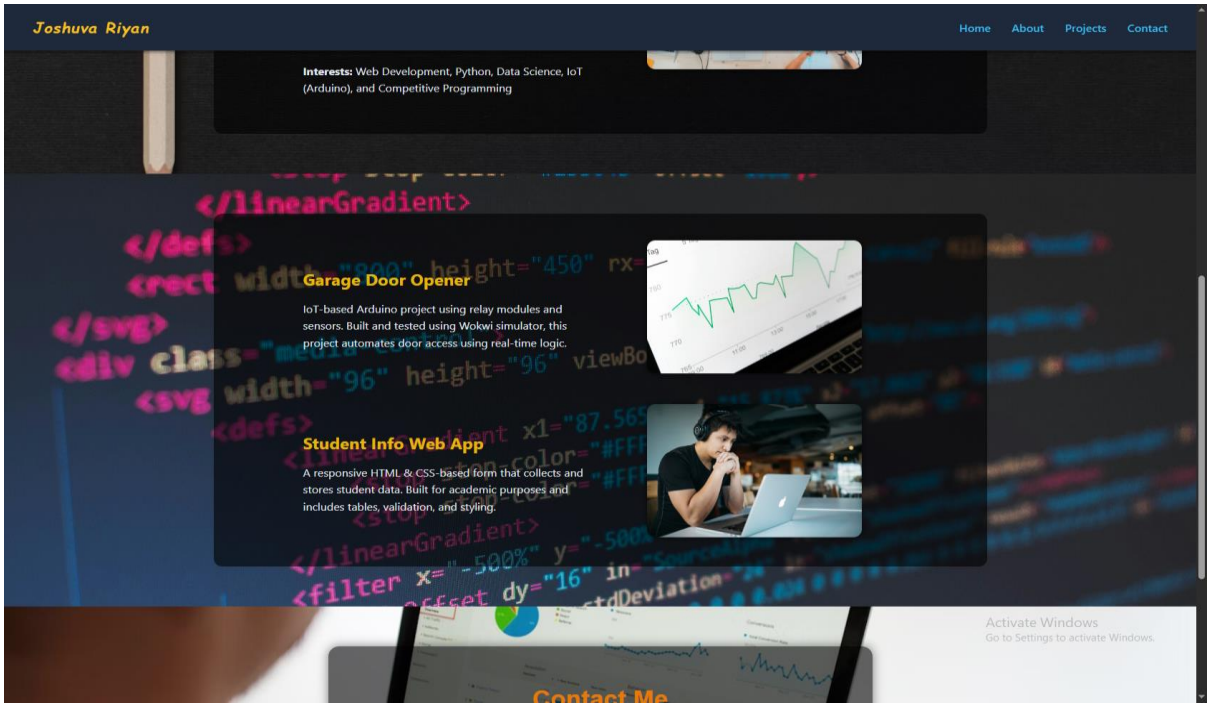
About Me

Name: Joshuva Riyan

Course: B.E. Computer Science and Engineering, 3rd Year

College: St. Mother Theresa Engineering College, Vagaikualam

Interests: Web Development, Python, Data Science, IoT (Arduino), and Competitive Programming



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Garage Door Opener

IoT-based Arduino project using relay modules and sensors. Built and tested using Wokwi simulator, this project automates door access using real-time logic.

Student Info Web App

A responsive HTML & CSS-based form that collects and stores student data. Built for academic purposes and includes tables, validation, and styling.

API Documentation Link:

https://github.com/whiteman2243-coder/NM-PROJECT-1.git

4. Challenges and Solutions

During development, several **technical and functional challenges** were faced. The following table summarizes key challenges and how they were resolved:

Challenge	Description	Solution Implemented
Theme customization limitations	The selected WordPress theme lacked some custom sections	Used Elementor Page Builder for drag-and-drop design flexibility
Slow website loading	Large image sizes affected performance	Optimized images using TinyPNG and activated caching plugins
Email delivery failures	Default PHP mail was unreliable	Integrated WP Mail SMTP plugin with Gmail API
Maintaining responsiveness	Some elements broke on smaller screens	Adjusted CSS breakpoints using Elementor's responsive settings
Deployment errors	Issues in hosting WordPress on Netlify	Used alternative free hosting platform (000webhost / Infinity Free) for stable deployment

These solutions ensured that the website achieved optimal performance and user satisfaction.

5. GitHub Repository and Setup Guide

To ensure transparency and future usability, the project is hosted on **GitHub**. The repository contains source code, media assets, documentation, and deployment instructions.

Repository Details:

- **Platform:** GitHub
- **Repository Name:** https://github.com/whiteman2243-coder/NM-PROJECT-1.git
- **Contents:**
  - /wp-content/themes – theme customization files
  - /uploads – media and images
  - /docs – documentation and screenshots
  - README.md – setup and usage guide

Setup Guide:

1. Clone the repository using:

git clone:

https://github.com/whiteman2243-coder/NM-PROJECT-1/blob/main/JOSHUA.html

2. Install WordPress on local or web hosting.
3. Import the theme and configure the required plugins.
4. Set up contact form settings and database.
5. Run the website and verify functionality.

The GitHub README includes screenshots, credits, and a deployed link for quick access.

6. Final Submission Deliverables

The final submission package includes the following materials:

- **GitHub Repository Link** – https://github.com/whiteman2243-coder/NM-PROJECT-1.git
- **Deployed Website Link** –

  https://github.com/whiteman2243-coder/NM-PROJECT-1/blob/main/JOSHUA.html
- **Final Project Report (PDF)** – Full documentation with screenshots.
- **Presentation Slides** – Summary of features, screenshots, and key results.

These deliverables ensure that both evaluators and users can view, analyze, and reuse the work effectively.