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An Undergraduate Internship/Project on Dynamic Portfolio Project

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An Undergraduate Internship/Project on Dynamic Portfolio Project

By

Arpita Saha

Student ID: **1920448**

Summer, 2023

Supervisor:
MD. FAHAD Monir

Assistant professor

Department of Computer Science & Engineering

Independent University, Bangladesh

October 18, 2023

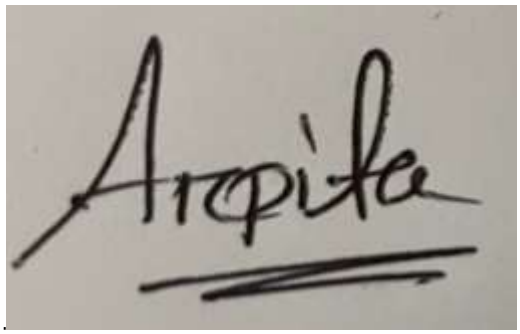
Dissertation submitted in partial fulfilment for the degree of Bachelor of Science in Computer Science

Department of Computer Science & Engineering

Independent University, Bangladesh

Attestation

This is to certify that Arpita Saha (ID: 1920448) finished the report titled "Dynamic Portfolio" and submitted it as a partial fulfilment of the requirement for the degree in Computer Science and Engineering from Independent University, Bangladesh (IUB). The internal supervisor was Md. Fahad Monir from IUB, and the external supervisor was Md. Mahmud Hasan from 'Global Informatics Limited'. I can vouch that every piece of work included in this report is entirely unique and was produced during my internship. The portfolio website was all my work. I worked on the frontend using HTML/CSS/JS, the back end using the Laravel framework, and the database connection was MySQL.
I downloaded a few templates from the bootstrap documentation's website, and I followed online tutorials for better customization and guidance.



18-10-2023

Signature Date

Arpita Saha

Name

Acknowledgemently

I want to start by expressing my gratitude to the Almighty Allah for this chance.
I want to express my gratitude to MD Mahmud Hasan, Managing Director and CEO of Global Informatics Limited, for providing me with the chance to complete an internship with the company.
I want to express my gratitude to Mahmud Hasan for serving as my external supervisor and always offering me guidance.
I want to thank MD. Fahad Monir, Internal Supervisor and Assistant Professor in the Department of Computer Science and Engineering at Independent University Bangladesh (IUB), for his ongoing assistance and counsel.
I am immensely appreciative of the department employees and friends who assisted me in finishing my internship.

Letter of Transmittal

October 01, 2023

Subject: Submission of Final Internship Report on Portfolio Project in Compliance with Graduation Requirements.

Hello, Sir

I am sending my internship report with the utmost respect, as a requirement for my bachelor's degree in computer science & Engineering. It is a tremendous honour to have had the opportunity to work under your excellent leadership. This report was developed because of my three-month internship at Global Informatics Limited and the project I worked on during that time. This report was created to fulfil the undergraduate requirements in Computer Science and Engineering. My stay with the firm has provided me with a better understanding of corporate life as well as collaboration. I will be glad if the report I created achieves its goal. This report, in my opinion, will help my internship program achieve its purpose.

I would be extremely grateful if you could evaluate the report and provide your priceless input. If you thought the report was helpful and gave you a better understanding of my internship experience, it would be a wonderful honour.

Yours sincerely,
Arpita Saha ID:
1920448

Evaluation Committee

Supervision Panel

Academic Supervisor	Industry Supervisor
MD. Fahad Monir	Md. Mahmud Hasan

Panel Members

Panel Member 1	Panel Member 2
Dr. Md. Tarek Habib	Mr. Sajed Imtenanul

Office Use

Program Coordinator	Head of the Department
Subrata Kumar Dey	Mahady Hasan

Abstract

Global Informatics Limited, is a software company based on Dhaka, Bangladesh. GIL provides a wide range of professional services to both local and international market including website building, video streaming platform, mobile application, web application, ecommerce websites and apps, user experience and user interface design, business research. During my internship, I played a key role in building an website, an essential service in GIL offerings. This hands-on experience helped me turn classroom learning into practical skills and collaborate closely with experienced experts to grasp the ins and outs of effective websites.

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Chapter 1

Introduction

I, Arpita Saha from the CSE department acquired an internship in a company named Global Informatics LTD in the month of June 13, 2023. I got recruited through software Engineering since I had a past work relationship with the company. Global Informatics Limited (GIL) is the Technology Solution provider company in Bangladesh. My role in the company is one of an unpaid tech intern as a software web developer. I also help web designing under supervision. I am hoping this will be a steppingstone for my career in web development.

1.1 Overview/Background of the Work

My role as a web developer entails that I will be working on developing websites. It is the first major project of my internship that will ensure my time as an intern is spent productively. Initially I started working on the project with a co-developer, but I eventually took the whole project under my umbrella and intended to finish it myself under the supervision and guidance of the supervisor and co-developers. The dynamic portfolio website is a application for computers that can help users to get their portfolio by changing their own information using backend. It's a web based site where anyone can get all the information and there is a dashboard page where anyone can change their information data. Also, anyone can delete/edit your data easily. Also has a contact page where anyone can change their number and email address. And anyone can contact their contact page to change their email address. I am using Laravel framework to develop this project. For changing the Data, you must Register using E-mail address and Verify password. Then you can access the page and change your data Easily.

1.2 Objectives

The goal of the project is to create a professional and Dynamic portfolio website, with the objective of ensuring a smooth basic information for create a easy basic portfolio by using Backend page and anyone can login and access to modify their portfolio

1.3 Scopes

The following is a list of some of the features that users will have access to as this project is developed:

- Homepage
- Login
- Register
- Show key point.
- has create and list option.
- Edit/Delete.

Chapter 2

Literature Review

2.1 Relationship with Undergraduate Studies

Being a developer is one of my goals as an aspiring computer scientist. Through all the classes I've attended, I've greatly enhanced my understanding of the subtleties. Additionally, knowledge gained from classes on database management, software engineering, and system analysis and design has been valuable.

2.2 Related works

1. While conducting system analysis and design, I created a project that assisted me in designing and implementing solutions in my fieldwork. I developed an Dynamic Portfolio project.

2. During my Object-Oriented Programming (OOP) course, I worked on a project related to a Post Office.

3. In Database Management, I came up with a project that involved making a database management system for data storage and display..

Chapter 3

Project Management & Financing

3.1 Work Breakdown Structure

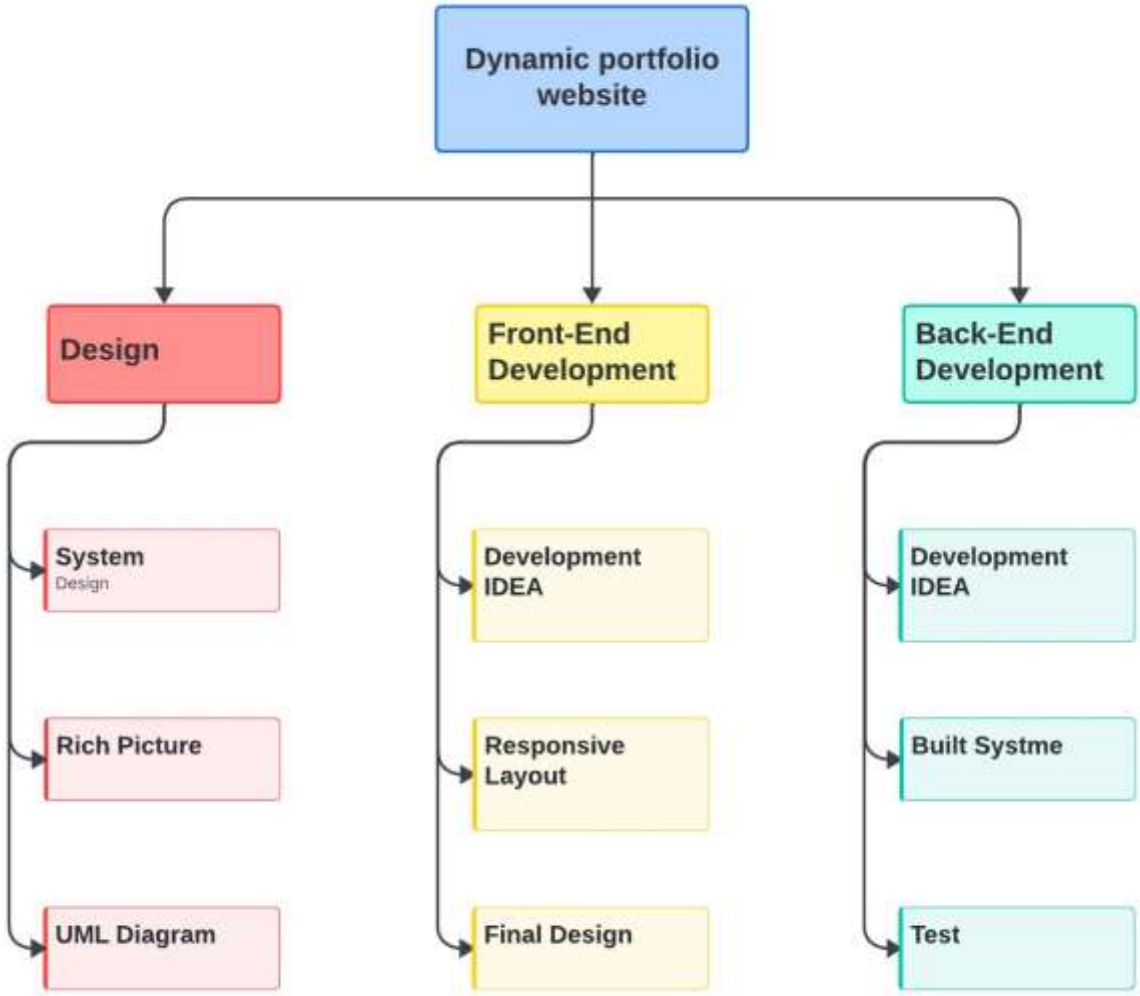


Figure 1 Work Breakdown Structure

3.2 Process/Activity wise Time Distribution

Activity	Days	Percentage
Design	10	10%
Project Analysis	10	10%
Front-End	10	20%
Back-End	20	30%
Testing	5	10%
Bug Fixing	5	20%
total	60	100%

Table 1 Activity wise time distribution

3.3 Gantt Chart



Figure 2 Gantt Chart

3.4 Process/Activity wise Resource Allocation

Team Member	MAX	APPOX.Sallary
Senior Full Stack Developer	02	60,000
System Analyst	01	30,000
Ui/UX designer	01	40,000
Trainee Full stack Developer	02	10,000

Table 2 Activity wise Resource Allocation

3.5 Estimated Costing

Serial no	Distribution	Costing
01	Development Team	1,30,000
02	System Analyst	30,000
03	Ui/Ux designer	40,000
04	Trainee Developer	10,000
	total	2,10,000

Table 3 Estimated Costing

Chapter 4

Methodology

Our company is a small tech company with 27 employees working in Networking & IT Infrastructure Solutions, Web & Software Application Development and Business Consultancy & Promotion. We provide you with the ability to enhance your business simplifying your operation, improving your productivity, and managing your IT infrastructure. We help every business with exquisite custom web & software development services to obtain real business value and scalable solutions. In our company our meetings are held weekly along with minimal documentation of the development process. Most documentation is done after the product is complete and is scheduled for shipping. Being specialists in our field, we provide time-tested and globally accepted technological solutions for the exponential growth of your distinguished enterprise.

Chapter 5

Body of the Project

This section explores all the detailed workflow of the project. As stated further along in this chapter the reader will notice all the detailed analysis and visualizations that contributed to the development process. Some of these artifacts are as shown in the figures and in some cases oral instructions were provided to establish the point. Detailed descriptions of each analysis are provided in the subsections that will attempt to expand on each activity, resource, and requirement.

5.1 Work Description

Dynamic portfolio project is a personal portfolio-based project.
First of all, I am using html, CSS, and bootstraps to creating my project.
In the Front page I give some information about myself and giving GitHub and LinkedIn website in a side. Then give a About me pages and skills page I created a backend page where you can change every information about yourself. Also, you can change your picture.
I have a portfolio page where I gave a picture option and title and description option where you can upload your project picture and give your project basic information.
And the contact page has given name, email, project, and message option where people can contact you for any work and any project.
Also, I connected to a Backend page using Laravel. if you want to excess this page, we have to register using Name, Email and Verify your password. Then you have to login by giving the same Email and Password which you are using for Registration.
And then you can see a dashboard page.
Where I give six elements based my portfolio website like main page, About, Education, Portfolio and Contact. Each element has two options. First one is create and 2nd one is List.
Portfolio create page has some features like Add
Image.
Title Description
Submit button.
In this page you can submit your personal data in create page and when you click the submit button all that information storing at list page List page has a table where

you can store your storing data and you can edit your data and delete your data using list page.
After creating your new data, you can show that your portfolio has been changed automatically.

5.2 Requirement Analysis

Rich Picture

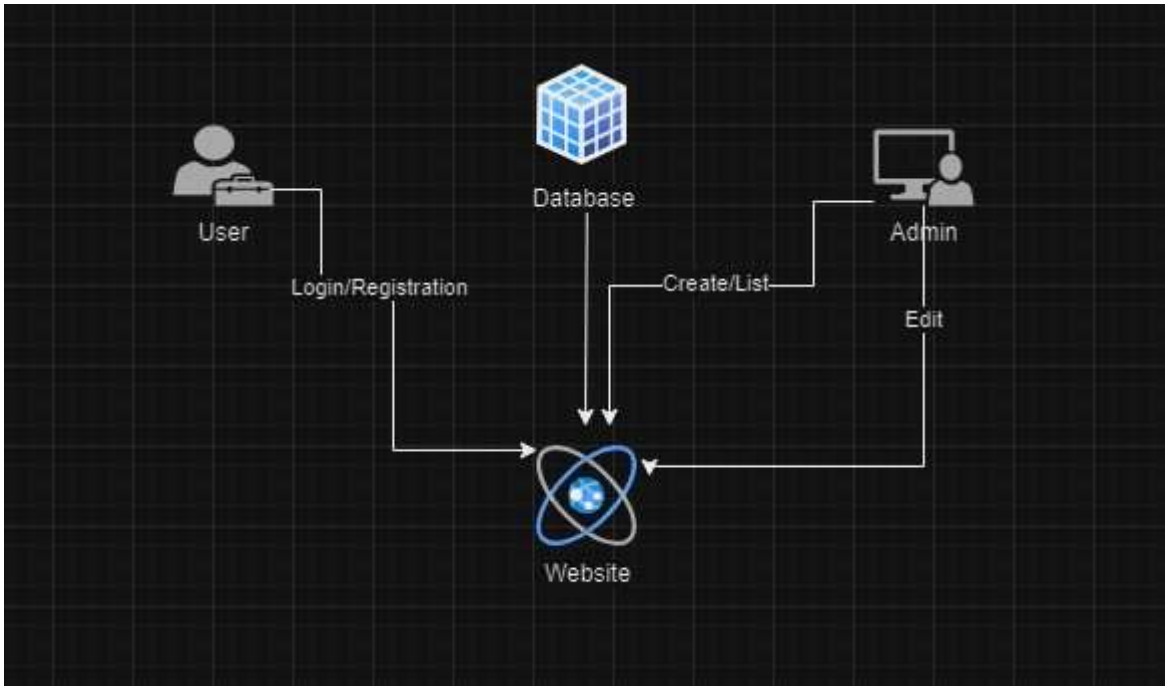


Figure 3 Rich Picture

Functional and Non-Functional Requirements

Functional Requirements

• User can login and register multiple accounts.

• User can show and change information from Backend page.

• Contact form.

• Admin/user can create new info and also can list their more info in table.

• Admin/User can Edit/Delete their info.

Non-Functional Requirements

• Responsiveness.

• User Friendly Interface.

• Lightweight website making.

• Achieving customer satisfaction to give quality service.

• Maintaining the website continuously.

• Readable code writing that can be understanding by any developer.

5.3 System Analysis

5.3.1 Six Element Analysis

Process	Human	Computer Hardware	Software e	Database	Network and communication n
User Registration	User	Laptop/ PC	website	phpMyAdmin	Internet
Admin access user data	Admin	Laptop/ PC	website	phpMyAdmin	Internet
Admin/user can Create/update/Delete e Data	Admin, user	Laptop/ PC	website	phpMyAdmin	Internet
User change Information	User	Laptop/ PC	website	phpMyAdmin	Internet

Submit forms	User	Laptop/ PC	website	phpMyAdmin	Internet

Table 4 Six Element Analysis

5.3.2 Feasibility Analysis

A feasibility analysis was conducted during the initial project planning stages, taking into consideration human resources, time constraints, and budgetary factors. While no formal documents were generated during the meeting, there was a shared consensus that the project remains feasible given the current circumstances within the company. t's important to acknowledge that this module also partially deviates from our project's original vision of creating an offline-capable project. Despite these challenges and deviations, I am committed to proceeding with the development and incorporation of this functional requirement.

Planning if its possible This evaluation is the most important for making sure the job goes well. In scheduling feasibility, our group calculated how long it will take to finish our project.

5.3.3 Problem Solution Analysis

One of the biggest challenges a web developer faces during the web development process is that requirements are always changing. In order to examine a problem, one must first identify the main issue, then ascertain its sources and effects. We have encountered the following issues during this challenge:

1. One of the most difficult concerns during the web development process that a web developer must deal with is the fact that the requirements are always changing. The answer was to convene a group meeting for approval prior to development.

2. Git integration during this project resulted in some unforeseen problems with branch maintenance, etc.

5.3.4 Effect and Constraints Analysis

Any website you create must take certain restrictions into account. Examples include the budget, deadline, special features, etc. It ultimately came down to the project's budget and layout. The user is the most important consideration when building a website. Each client is unique in their own way. Before we begin to create, we must perform research and determine who our target audience is. Approximately 10 to 15

working days are required to finish a design. The initial drawing and final design of the project seemed like two separate websites.

5.4 System Design

A method used by businesses to create and maintain the infrastructure that supports their core operations. The main objective is to boost worker productivity.
Built on technology used for essential business processes. A prepared strategy must be applied in order to ensure success.

5.4.1 UML Diagrams

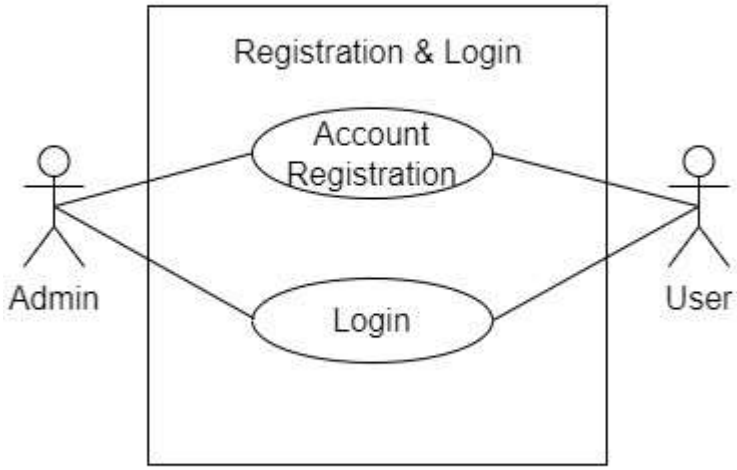


Figure 4 Use Case

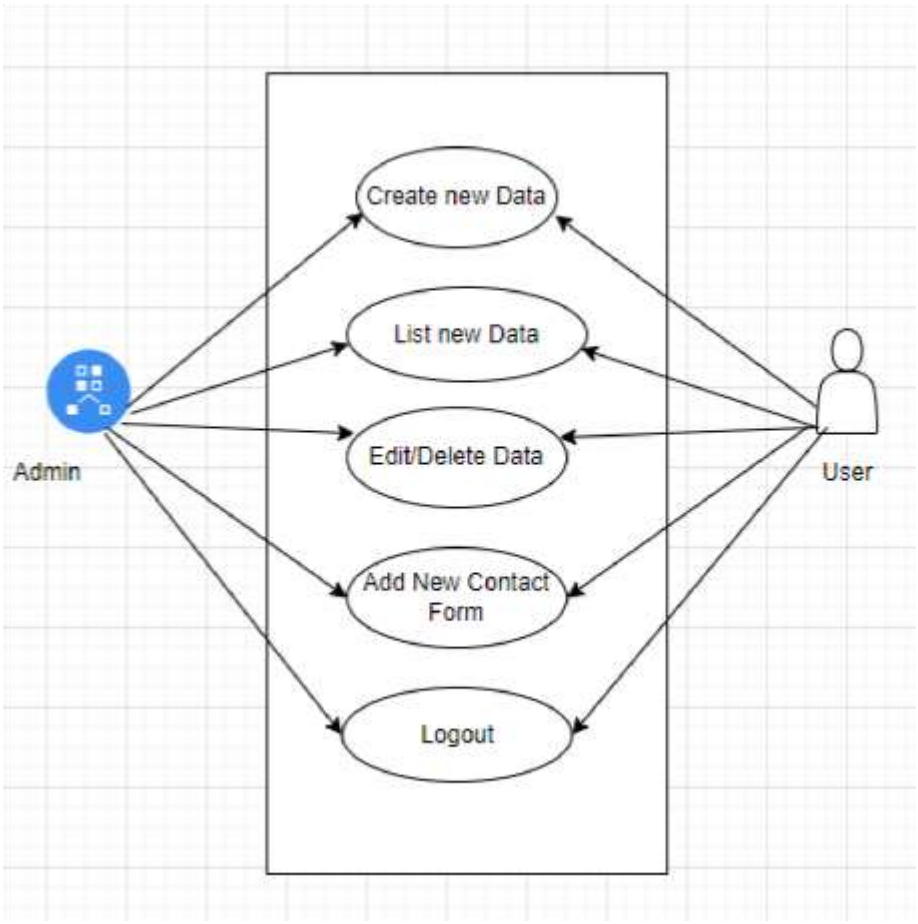


Figure 5 Use case

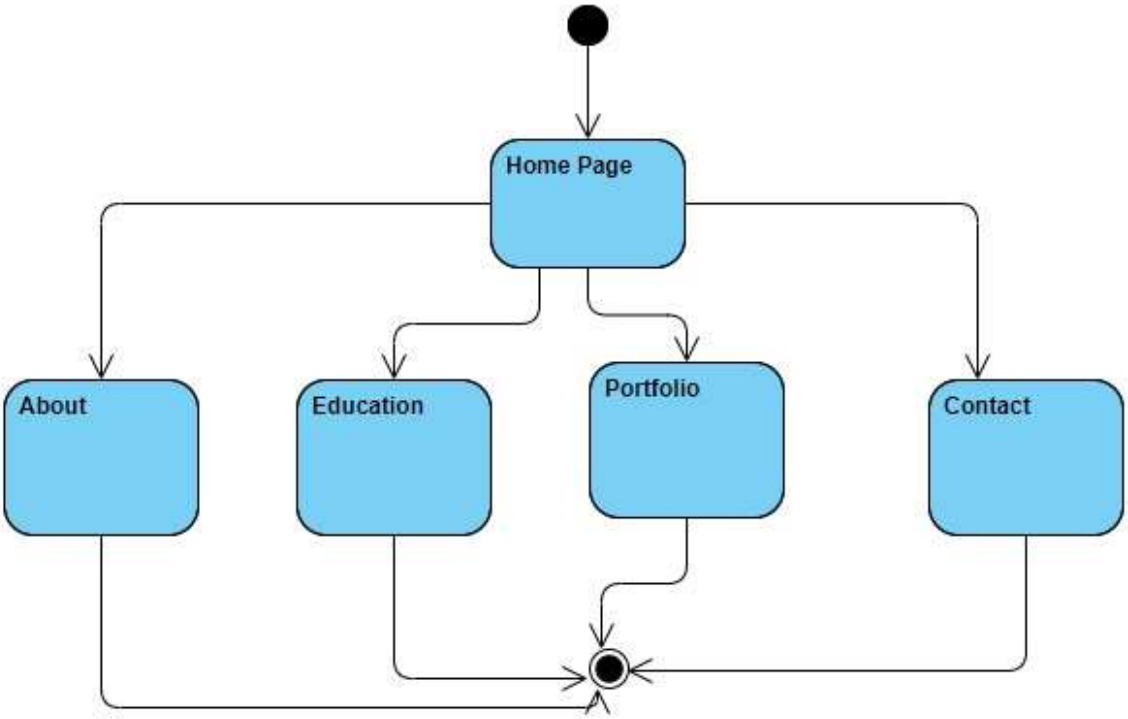


Figure 6 Admin Activity diagram

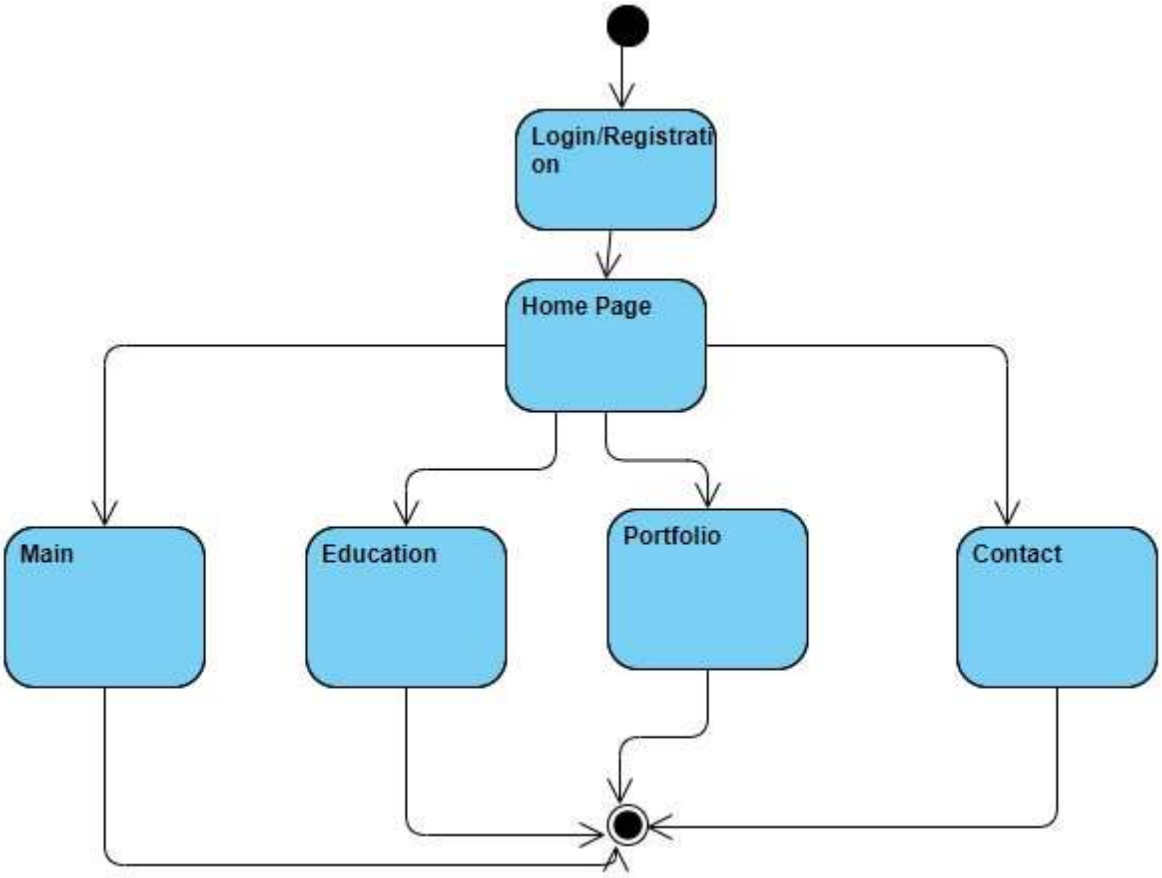
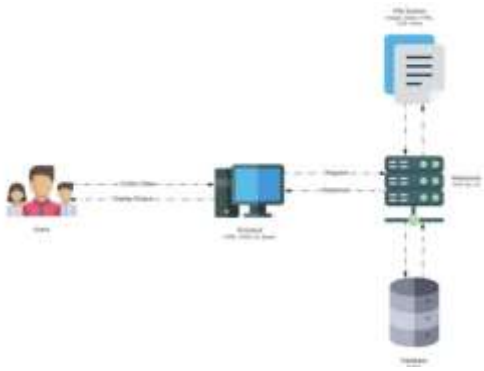


Figure 7 Admin/user Activity Diagram

5.4.2 Architecture



5.5 Implementation

5.6 Testing

The following functionalities are connected with database and have been tested for this particular website:

- Login
- Registration
- create/List Data
- Send Contact Form
- Edit/Delete Data.

5.6.1 Input

The data input types for the portfolio website are shown in the following table:

Process	Field Type
Registration	name- string email- string password- string Verify Password-String
Login	email- string password- string
create/List Data	Title-string Image-string Description-String
Send Contact Form	Name-string Email-string Project-string Message-string
Edit/Delete Data.	Title-string Image-string Description-String

Table 5 Input

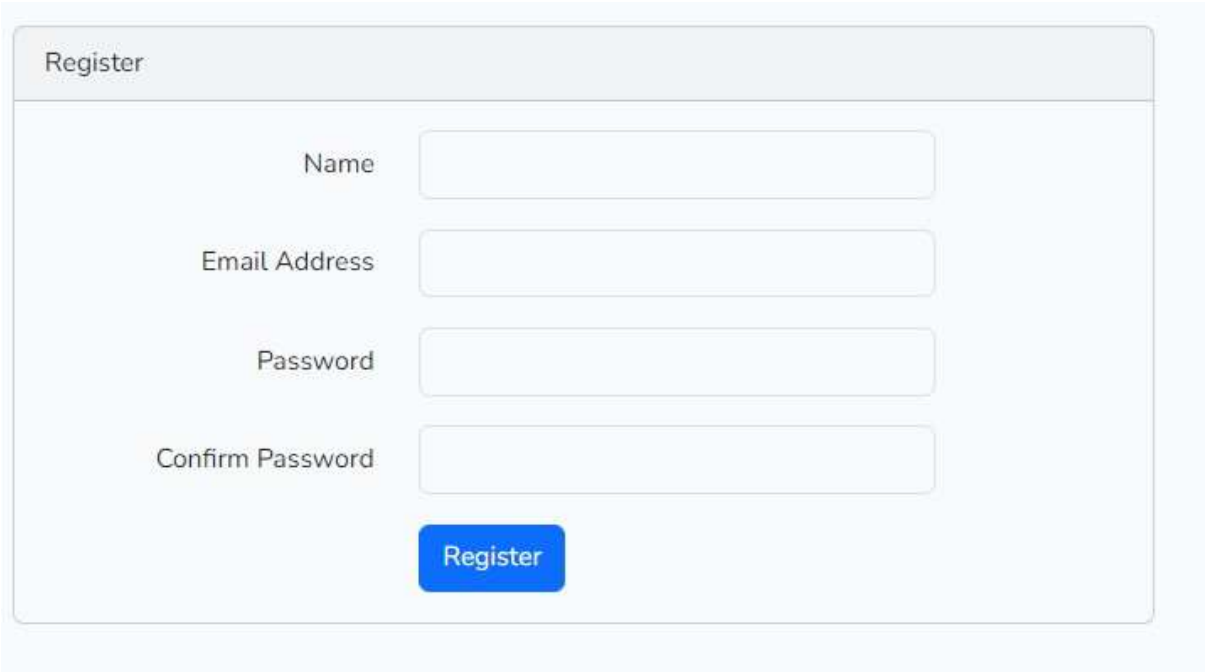


Figure 8 User Registration

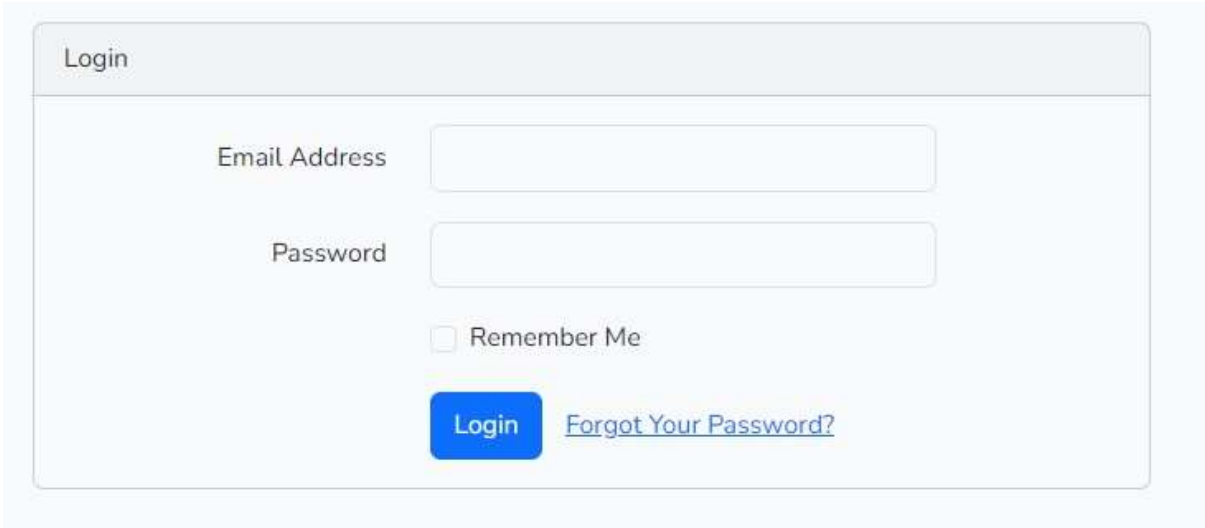


Figure 9 User Login

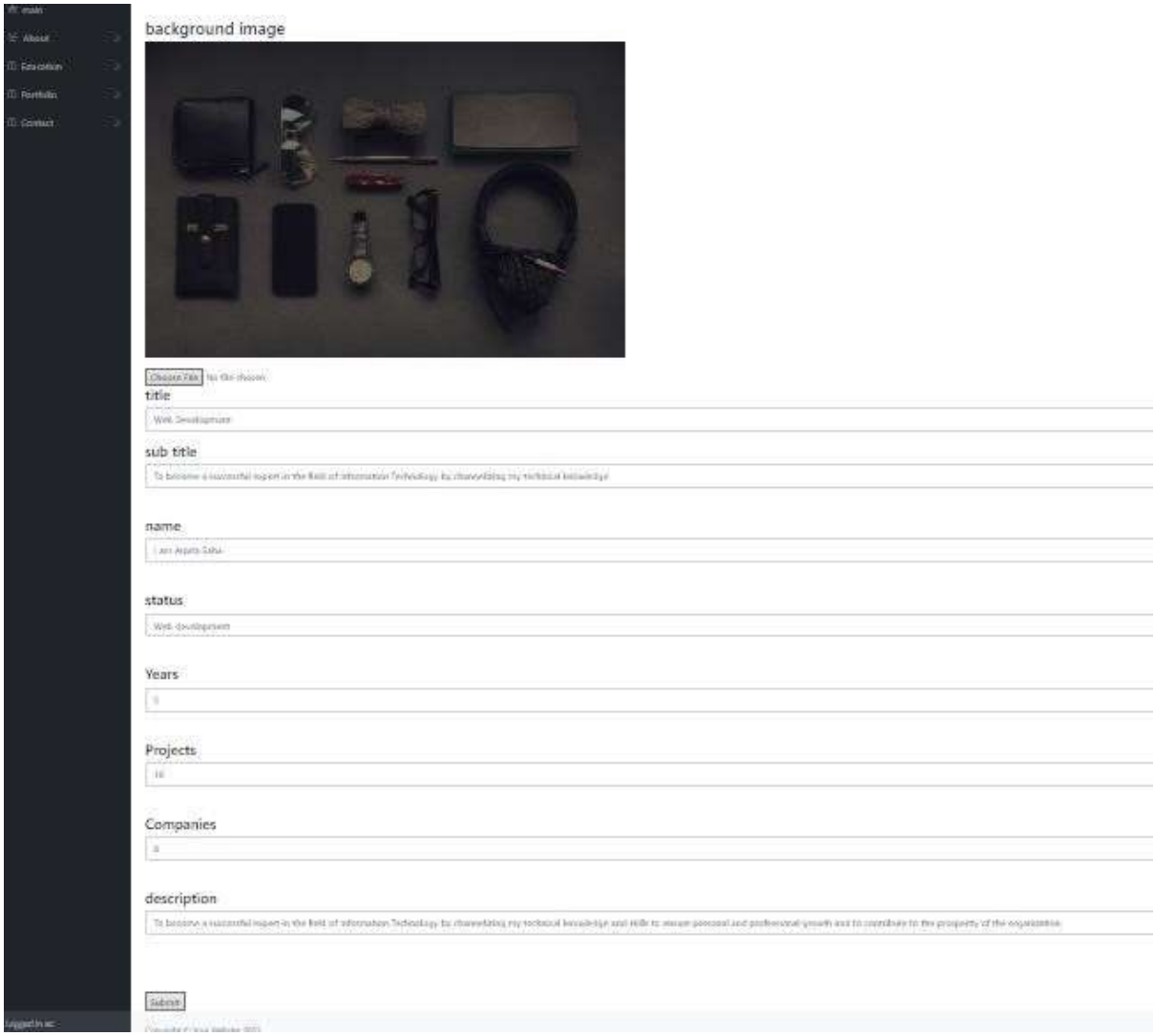


Figure 11 create New data.

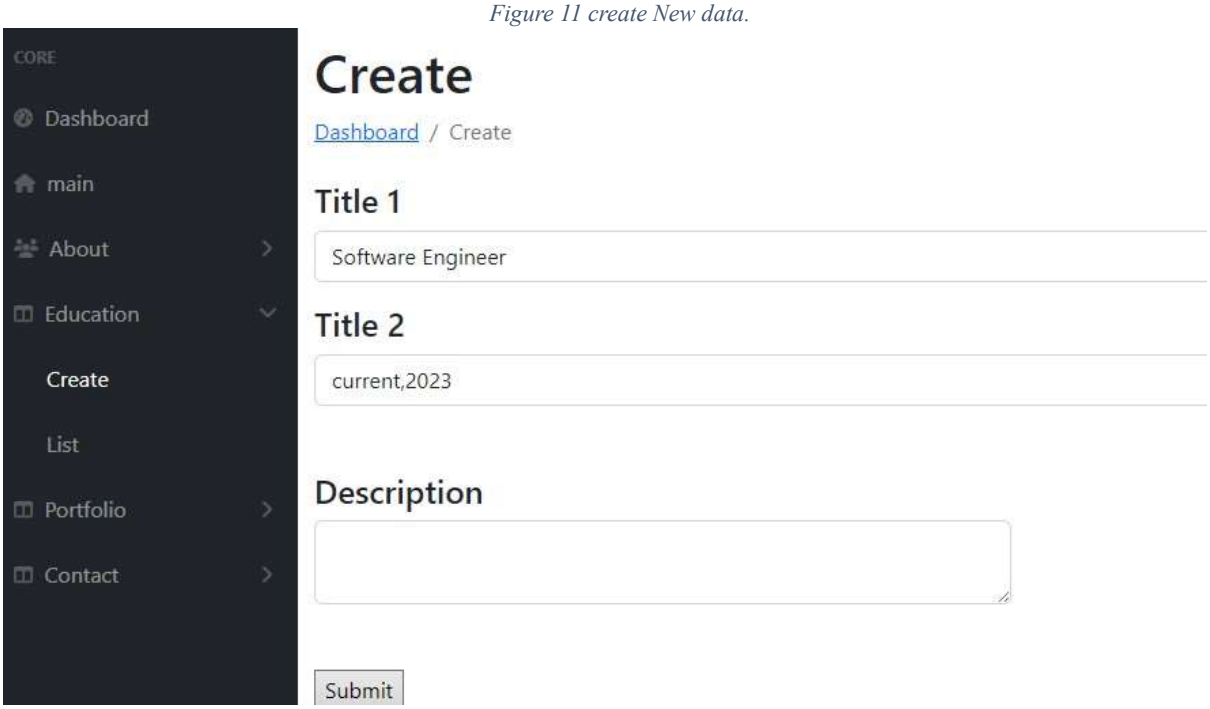


Figure 12 Add new Education Data

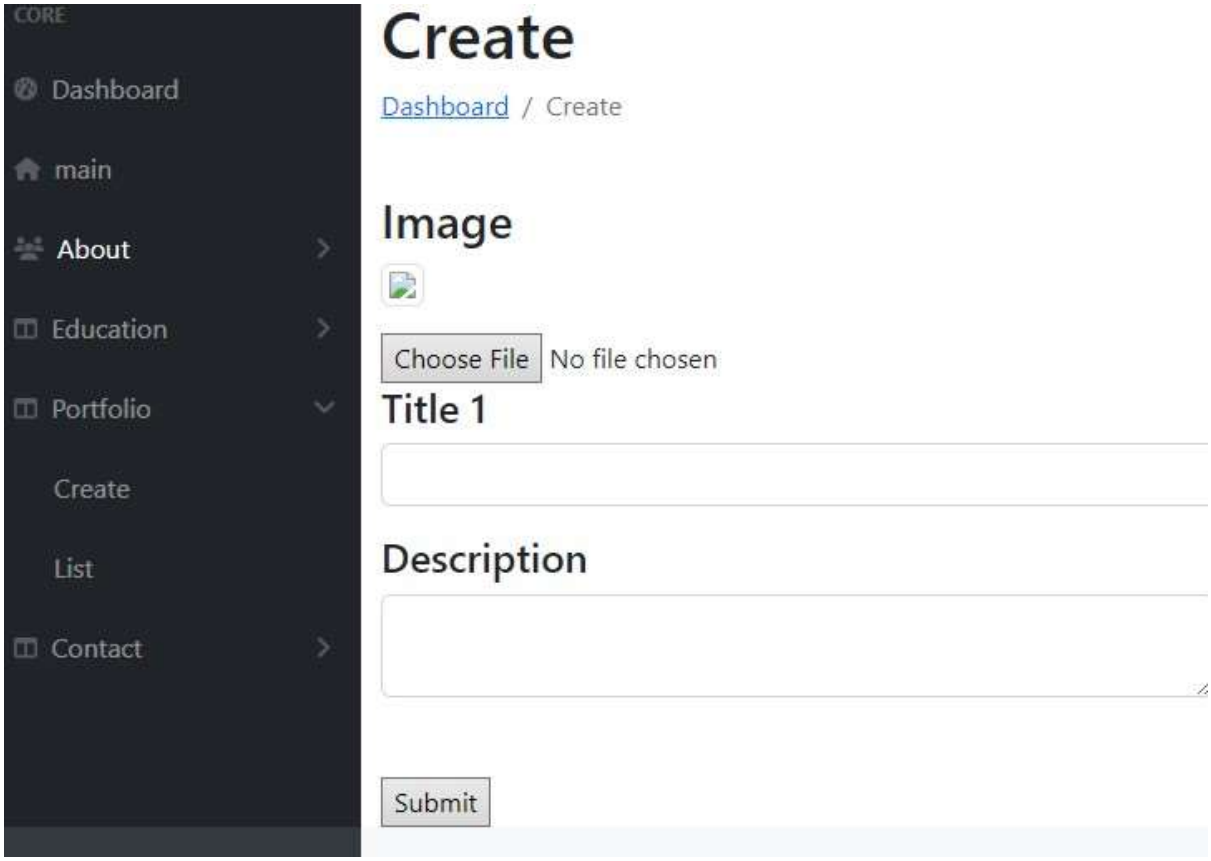


Figure 13 Add new Portfolio Data



Figure 14 Add new contact Data.

5.6.2 Output



	id	name	email	email_verified_at	password	remember_token
Edit Copy Delete	1	Arpita Saha	sahaarpita602@gmail.com	NULL	$2y$10$7.IhaCFjyB0J77eslz.zqOt04L69XYK75bTt7Mb/spl...	NULL
Edit Copy Delete	2	Arpita Saha	admin@gmail.com	NULL	$2y$10$fFa63nHhmbo6J33WoBq8rICrTxZ8xQE7qh4CUqyHM...	NULL
Edit Copy Delete	3	Arpita Saha	nity@gmail.com	NULL	$2y$10$r2BlWR9scbX6HSzcuAey8OIKlWX2d6EuKPfPolhJumR...	NULL

Figure 15 User Registration & Login



	id	title	name	status	sub_title	description	bc_img	years	projects	companies	crea
Edit Copy Delete	1	Web Development	I am Arpita Saha	Web development	To become a successful expert in the field of Info...	To become a successful expert in the field of Info...	storage/img/bc_img.jpg	5	10	8	NULL

Figure 16 Info Data details



	id	title1	title2	description	created_at	updated_at
Edit Copy Delete	6	Software Engineer	current,2023	Global Informatics LTD	2023-08-03 10:39:06	2023-08-03 10:39:06
Edit Copy Delete	9	Independent University Bangladesh	current,2023	Computer Science and Engineering	2023-09-30 15:18:44	2023-09-30 15:18:44

Figure 17 Education Details



	id	title1	image	description	created_at	updated_at
Edit Copy Delete	3	Rokomari.com	storage/img/kTWAuNBFxTCRG6rLwTP4XTORvcNOcMd5rHdcRm...	create rokomari.com project using java and designi...	2023-08-06 09:20:29	2023-08-06 09:20:29
Edit Copy Delete	4	AS Grocery Shop	storage/img/Tdvf7BLZGfMksMDf9n6RGAhrJGHwWCSXeQBGxZr...	create E-commerce website using PYTHON,MYSQL, HTM...	2023-08-06 09:22:59	2023-08-06 09:22:59
Edit Copy Delete	5	Weather App	storage/img/5HsAH3rj4nXZghtOuqQBcce7nCAobjzI5rdczL...	Create country wise weather changing website using...	2023-08-06 09:36:52	2023-08-06 09:36:52
Edit Copy Delete	6	Student Enrollment System	storage/img/bLO6JloO1Uft8hCYyeuUuWsFDxOxzlWC4KDH6b...	Create a student enrollment system app using PYTHO...	2023-08-06 09:47:10	2023-08-06 09:47:10

Figure 18 portfolio Details



	id	email	call	location	created_at	updated_at
Edit Copy Delete	3	1920448@iub.edu.bd	01720337502	Dhaka,Bangladesh	NULL	2023-09-30 15:25:21

Check all With selected: Edit Copy Delete Export

Figure 19 portfolio Details

5.6.3 Designing Test Cases

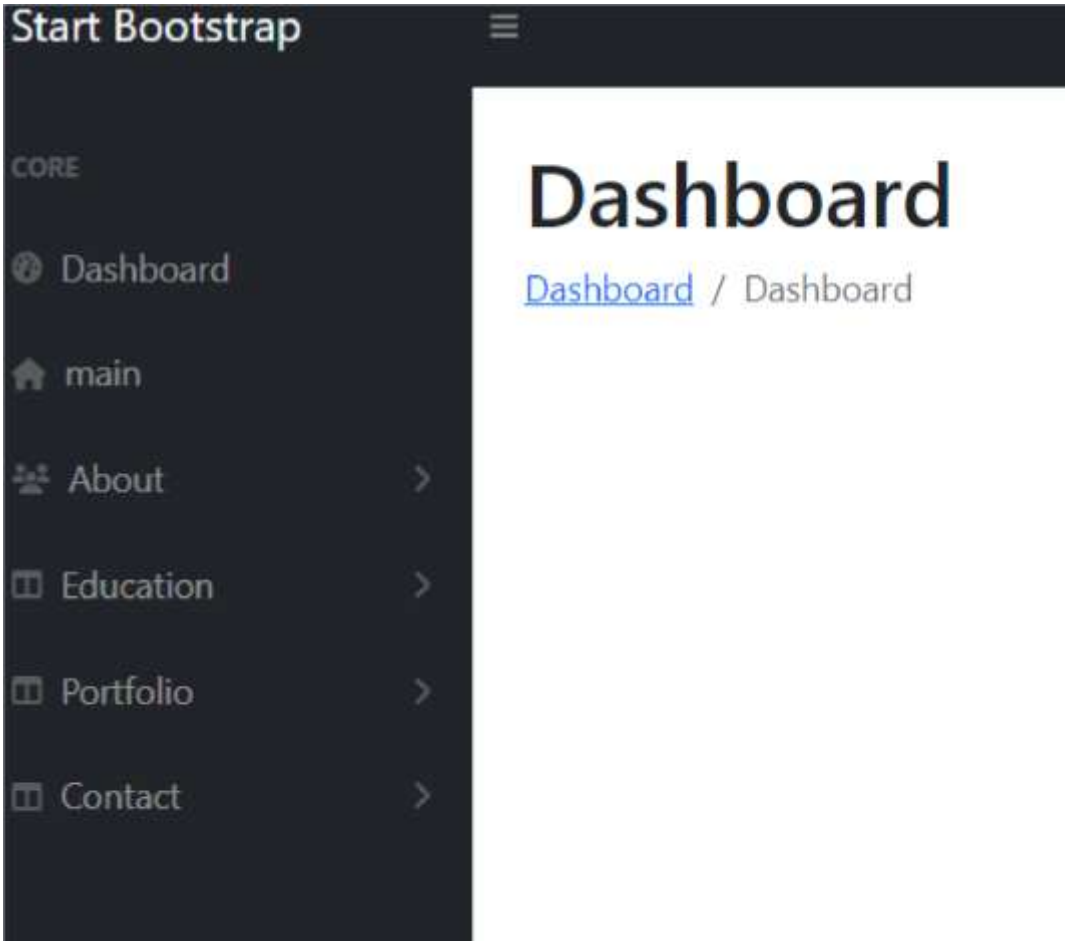
5.6.4 Test Results

Every feature included in the functional requirement is functioning.

Chapter 6

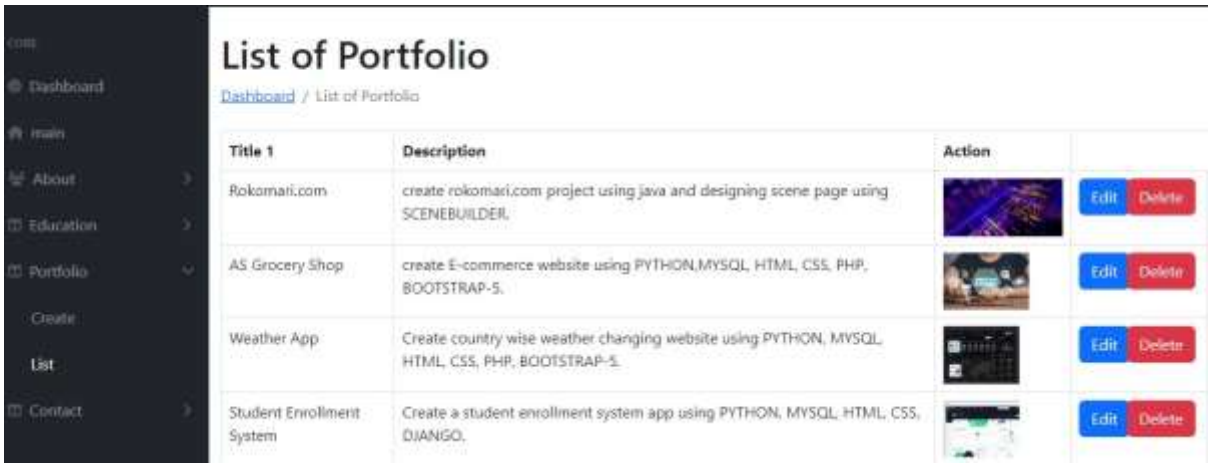
Results & Analysis

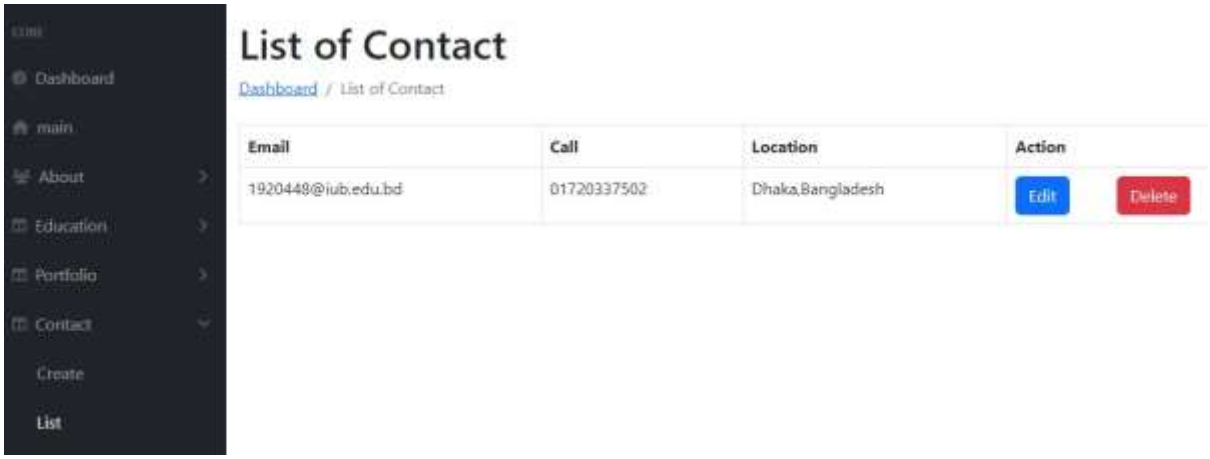
Analyses are still being conducted. But now that it has been thoroughly tested using only the bare minimum requirements, it is fully operational. However, real-time user testing is still being created. The executed test cases were recorded, various nonfunctional requirement-related issues were also discovered and reported.


Start Bootstrap
CORE
Dashboard
main
About
Education
Portfolio
Contact
Dashboard
Dashboard / Dashboard

7


List of Education
Dashboard / List of Education
Dashboard
main
About
Education
Create
List
Portfolio
Title 1
Title 2
Description
Action
Software Engineer
current,2023
Global Informatics LTD
Edit
Delete
Independent University Bangladesh
current,2023
Computer Science and Engineering
Edit
Delete


Dashboard
main
About
Education
Portfolio
Create
List
Contact
List of Portfolio
Dashboard / List of Portfolio
Title 1
Description
Action
Rokomari.com
create rokomari.com project using java and designing scene page using SCENEBUILDER.
Edit
Delete
AS Grocery Shop
create E-commerce website using PYTHON,MYSQL, HTML, CSS, PHP, BOOTSTRAP-5.
Edit
Delete
Weather App
Create country wise weather changing website using PYTHON, MYSQL, HTML, CSS, PHP, BOOTSTRAP-5.
Edit
Delete
Student Enrollment System
Create a student enrollment system app using PYTHON, MYSQL, HTML, CSS, DJANGO.
Edit
Delete


Dashboard
main
About
Education
Portfolio
Contact
Create
List
List of Contact
Dashboard / List of Contact
Email
Call
Location
Action
1920448@iub.edu.bd
01720337502
Dhaka,Bangladesh
Edit
Delete

Chapter 7

Project as Engineering Problem Analysis

As engineers we tend to analyse a problem and build a solution from the ground up. This chapter is dedicated to explaining how our solution is sustainable and how it will affect society as well expanding on the ethical issues that came up during the development process.

7.1 Sustainability of the Project/Work

In software engineering, sustainability refers to a software system's ability to continue meeting users' needs over time. A software project that is long-lasting can benefit users without requiring frequent upgrades or intensive upkeep. A software engineering project's long-term survival depends on several factors, including:

- Code quality: The simplicity of updating and expanding high-quality code may increase a project's long-term survival.

- Test coverage: By making sure the program is dependable and works as intended with adequate test coverage, it is feasible to boost its sustainability.

- Documentation: Extensive documentation, which makes a project simpler to maintain and understand, may boost its sustainability.

- Collaboration: By working together with stakeholders to make sure the project is in line with their needs, the project team and stakeholders can boost the sustainability of the project.

Software engineers can make sure that their tasks are long-lasting and able to satisfy the expectations of their consumers by way of specializing in these components.

7.3 Addressing Ethics and Ethical Issues

Because of how evolved our society's technology is, all forms of online or software creation must go by a few basic ethical principles and standards. Through a variety of routes, sensitive information is often exchanged online. This cannot lead to data security issues. Data measurement is currently more expensive than patrol. No preference or discrimination is made on the website based on race, sexual orientation, gender, religion, body colour, language, politics, nationality, wealth, birth, or any other status. Only essential user data, such a user's name, email address, and phone number, are gathered by the website. The server and database in the backend are only accessible to the developer.

Chapter 8

Lesson Learned

This chapter will focus on the adversaries that I faced during my internship period and how I overcame them in order to prove myself as a proper corporate employee.

8.1 Problems Faced During this Period.

The start of my internship period was pleasant as most employees, including my supervisor, were very receptive of my presence in the office. With that said the lesson learnt during the first few weeks of my internship is creating the development environment for using Laravel which was a bigger hassle than anticipated.

First of all I didn't know about how to use Laravel to create a website and how to run route. The following week I faced the incredibly complex task of debugging a module in web development. The error logs really didn't specify what was wrong.

Developing the website, the next few weeks I faced difficulty integrating my project with Laravel and backend design. In addition, integrating all parts of the project together was intense work and I've learnt a lot about finalizing a product for deployment during the last few days of development.

8.2 Solution of those Problems

Asking for assistance and posing inquiries: To make up for my lack of knowledge or experience, I enlist the aid of more knowledgeable coworkers and pose inquiries when I was unsure about something. My comprehension of the ideas and technology used in a project has improved as a result, as has my capacity to carry out tasks more successfully.
Asking for assistance and communicating effectively: I was proactive in requesting assistance when necessary and spoke clearly to break down communication barriers with more experienced coworkers. I needed to be clear in my explanations, concise in my responses to inquiries, and open to criticism and guidance in order to do this.

Chapter 9

Future Work & Conclusion

9.1 Future Works

The future work of this project is anyone can access this project after doing Registration and anyone can include their extra information on the front page.
In a very short time, I created a simple portfolio website using Laravel.
There is still a lot of work to be done in this project. Many features must be added and connected to the backend for better users.

9.2 Conclusion

Dynamic Portfolio is a personal info-based portfolio project that is created with full backend system. Anyone can excess this project and also can change it
With that said Dynamic Portfolio has been a landmark project for me since it marks my step into a career that I look forward to and ends my bachelor's studies in this great institution. I have tried to apply all that I've learned here, gather as much experience as possible and be an ideal representative in the corporate world. I look forward to using this knowledge and applying myself in new paradigms.

. The duration of my involvement with the organization provided a valuable opportunity to acquire significant experiential knowledge. I would like to express my gratitude to those individuals who have contributed to enhancing my experience as an intern, fostering my self-assurance, and facilitating my transition into the realm of professional endeavours.

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An Undergraduate Internship/Project on Dynamic Portfolio Website

By

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Summer, 2023

Consent from Supervisor

The student modified the internship final report as per the recommendations made by his/her academic supervisor and/or panel members during and/or before final viva, and the department can use this version for archiving as well as the OBE course material for CSE499.

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