**Independent University** **Bangladesh (IUB)**

**IUB Academic Repository**

Internship Reports Summer 2022

2022-09-13

# Abroad website on student enrollment

Tasnim, Sajia

Independent University, Bangladesh

https://ar.iub.edu.bd/handle/11348/772

*Downloaded from IUB Academic Repository*

# An Undergraduate Internship/Study Abroad website on student enrollment

By

**Sajia Tasnim**

Student ID: **1730036**

**Summer, 2022**

Supervisor:

**Md. Asif Bin Khaled**

**Lecturer**

Department of Computer Science & Engineering

Independent University, Bangladesh

**September 13, 2022**

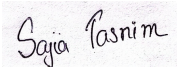
**Dissertation submitted in partial fulfillment for the degree of Bachelor of Science in Computer Science**

**Department of Computer Science  Engineering**

**Independent University, Bangladesh**

# Attestation

Through this this can be testified and certified that the work of the project was completed by me, Sajia Tasnim. My id is 1730036. This report has been submitted for the fulfillment of the requirement for the degree of Computer Science and Engineering which is taken from Independent University Bangladesh (IUB). The submitted report was completed and Md.Asif Bin Khaled had provided guidance. This is also to clarify that the work was completed by me. The work I have done was learned by me during my internship period.



17 September 2022

Signature | Date

Sajia Tasnim

Name

# Acknowledgement

I would like to begin with expressing my gratitude to Almighty Allah for keeping us safe when I could complete my work and write my report through hard work and dedication. I would also like to thank HIM for letting me do my internship from a reputed company and also with the guidance of a very reputed University of Bangladesh. My humble thanks and gratitude to my honorable faculty Md. Asif Bin Khaled, Lecturer, Department of Computer Science Engineering, Independent University Bangladesh, for his continuous support through his guidance and advice which helped me in completing my report completely. I would also like to thank everyone else who also helped me in every other fields giving me information or suggestions for my betterment. My gratitiude goes to the Computer Science and Engineering department of CSE which provided me with the necessary skills in my bachelor's degree.

My gratitude goes to Md. Sayedul Hasan Uzzal , CEO of creative system for giving me an opportunity for doing the internship program in his company as well as all the collegues in the company who welcomed me and helped me learn more and implement it in my project and without them my work would have been even more difficult.'

Lastly, my heartfelt thanks goes to all the faculties and staffs of Independent University Bangladesh who had an important role in helping me finish my program and write the completed report.

# Letter of Transmittal

13 September,2022
Md. Asif Bin Khaled
Lecturer,
Department of Computer Science and Engineering,
Independent University, Bangladesh

Subject: Letter of Transmittal for Internship Report, Autumn 2022

Dear sir,

It is a matter of great pleasure for me to submit my Internship report regarding obtaining your kind approval. I, Sajia Tasnim have completed my internship program and this report during my summer 2022 semester. My internship was completed from Creative System Limited Company which started at the year 2018 and have been very committed in striving for excellence. In my report I have detailed explanation about my work in the company. I am very delighted to present to you my involvement in the field of technology at the company, including designing, software development and research. I also had the opportunity for development practices

I hope, this report will be informative enough to fulfill your expectation and I would like to thank you for giving me an opportunity to submit this report.

Sincerely, Sajia Tasnim
ID: 1730036
Department of Computer Science Engineering
Independent University, Bangladesh

# Evaluation Committee

Asif Bin Khaled

.....

Signature

Md. Asif Bin Khaled

.....

Name

.....

Supervisor

.....

Signature

Mr.Raihan Bin Rafique

.....

Name

.....

Internal Examiner

.....

Signature

MOHAMMAD NOOR NABI

.....

Name

.....

External Examiner

.....

Signature

Saidul Islam Uzzal

.....

Name

.....

Convener

Dr. Mahady Hasan
Head, Department of CSE
School of Engineering & Computer Science
Independent University, Bangladesh (IUB



Scanned with CamScanner

# Abstract

The main idea of the project is to build a website for consultancy firm where students can frequently visit the platform to get updated news. The site contains a sign in system where they can sign in with the required information asked from them. After the successful registration, the user can access the web platform according to the provided access based on the role of the individual. From the home page of all the users where the list of all the registered members are shown, the personal information can be viewed, edited and deleted. from the button manage when the view button is clicked that the page with the selected user's information is shown. This can be viewed only. Similarly, for the edit option the registered information can be edited and saved by the update button. This was the previous information is erased and the new information is replaced and saved. Another option for the user is delete option. If an user needs to be removed the entire entity can be erased by selecting the delete button. The search bar can be used to search a registered user from the list by typing either the name, phone number or the email address. This was it is easier to find a specific user when necessary.

The project ensures the company's presence in the web platform for easier access and better marketing.

# Contents

**Attestation** i

**Acknowledgement** ii

**Letter of Transmittal** iii

**Evaluation Committee** iv

**Abstract** v

**1 Introduction** 1

1.1 Background of the Work . . . 1
1.2 Objectives . . . 2
1.3 Scopes . . . 2

**2 Literature Review** 4

2.1 Relationship with Undergraduate Studies . . . 4
2.2 Related works . . . 4

**3 Project Management & Financing** 6

3.1 Work Breakdown Structure . . . 6
3.2 Activity wise Time Distribution . . . 7
3.3 Gantt Chart . . . 8
3.4 Activity wise Resource Allocation . . . 8
3.5 Estimated Costing . . . 9

**4 Body of the Project** 10

4.1 Work Description . . . 10
4.2 Requirement Analysis . . . 11
4.3 System Analysis . . . 12
4.3.1 Six Element Analysis . . . 12
4.3.2 Feasibility Analysis . . . 13
4.3.3 Problem Solution Analysis . . . 14

4.3.4 Effect and Constraints Analysis . . . . . 14
4.4 System Design . . . . . 15
4.5 Implementation . . . . . 20
4.6 Testing . . . . . 21

**5 Results Analysis** **24**

**6 Project as Engineering Problem Analysis** **28**
6.1 Sustainability of the Project . . . . . 28
6.2 Social and Environmental Effects and Analysis . . . . . 28
6.3 Addressing Ethics and Ethical Issues . . . . . 29

**7 Lesson Learned** **30**
7.1 Problems Faced During this Period . . . . . 30
7.2 Solution of those Problems . . . . . 30

**8 Future Work Conclusion** **31**
8.1 Future Works . . . . . 31
8.2 Conclusion . . . . . 31

**Bibliography** **32**

# List of Figures


3.1 Work Breakdown Structure . . . . . 7
3.2 Gantt Chart . . . . . 8

4.1 Activity Diagram for Admin . . . . . 15
4.2 Activity Diagram for Manager . . . . . 16
4.3 Activity Diagram for Salesman . . . . . 17
4.4 Use Case Diagram of System . . . . . 18
4.5 MVC Architecture . . . . . 20
4.6 The input method . . . . . 21
4.7 Input user information for user registration . . . . . 22
4.8 The list of user after registration is successful . . . . . 23

5.1 Create User . . . . . 24
5.2 Register User . . . . . 25
5.3 All Users home view . . . . . 25
5.4 search with information . . . . . 26
5.5 View User data . . . . . 27
5.6 Edit user information . . . . . 27

# List of Tables

3.1 Process/Activity wise Resource and Time Allocation . . . . . 7
3.2 Estimated Costing . . . . . 9

4.1 Six Element Analysis of Study Abroad website student enrollment . . . . 12

# Chapter 1

# Introduction

## 1.1 Background of the Work

Due to its dedication and acceptance for its pursuit of greatness, Creative Systems Limited, information technology firm, soon became a private limited company and started operating in the year 2018. The company utilizes the power of cutting-edge technology to support the customers growth and eventual success in the digital world as a leading provider of information technology, consulting, and business process services. Creative Systems has developed into a very inventive software design and web development organization that understands its clients demands thanks to years of expertise from a forward-thinking workforce. Creative System undertakes digital research  create experiences to make enterprises really brand-centric and significantly builds brand loyalty.

We, the people of Bangladesh, are living in the digital age and embracing new systems and technologies gradually. We have grown incredibly reliant on the internet over the past ten years for our daily needs. Taking advantage of this opportunity, every company is attempting to establish a presence online and increase the accessibility of their brand. On the internet, e-services and markets are exploding in popularity. Many e-commerce and internet businesses have risen in recent years, offering a variety of goods or services.

The company has made a contract to develop the website for a company working for student counseling and visa for going abroad to study. The website consists of the Home Page which has all the information about the services provided by the company and an introduction to all the services available. The study abroad page consists of the country that are providing the scope of studies for students and their details. The services page consists of the detailed information of the facilities that are provided including factors like health insurance, free counseling or scholarships that a student may require help in. There are details of the institutions that the company are doing admission for or any other institutions that offer scopes for international student to study. The index page consists of an enrollment system where potential or eager clients can register to set their

appointment on their desired time. The enrollment system takes information as an input and saves it in the database . The used database in this project was MySQL. The version for laravel we have used was Laravel 9.0 and the version for PHP was PHP 8.2. The softwares that were involved were Xampp, Composer and Brackets. For the front end of the project CSS, HTML, Bootstrap were mainly used and the framework that was used was Laravel. The website is a full introduction of the company and the services it provides.

## 1.2 Objectives

The primary objective of my project is to create an enrollment system where clients (students) can enroll their personal data for the further use of the company. The data will be saved in the database for reference. This online enrollment process not only enables students to enroll without having to visit the company, but it also takes the business regulations into account. It also helps to reach more clients through their online presence which will also provide the visitors an easy solution for communication through the web platform. In many cases students after graduation becomes worried about their future and for those wanting a higher studies abroad doesn't know the complex procedure they have to go through. In that case, students can easily sit home in their comfort zone and reach out to the company who are helping such students in need. The simple step they have to follow is to register their information and fix a schedule with a date and time where they would like the company to reach out to them. Thus, they can have a counseling session from an expert through which they can set their goal according to their opportunities. Their choice of subject and country can be than analyzed to show them the absolute path for a better future. The system will save data of the students that they have provided during enrollment and this will be further used for helping them sort out their decisions. Through the platform the company is now able to reach out to potential clients who are willing to accept their service. Also, through student enrollment it is easier for clients and the office to work more efficiently. Previously it wasn't as easy and simple as the website has made it now.

## 1.3 Scopes

Initially, the web page asks for personal information to register and after registration the features that the user receives are as follows:

- **Home page:** The first page the user will see after login the website. This page consists of the login option for users to log in and access the site. It also briefs the

services provided by the company. The personal blogs are also available here. It has options to register for a free counseling session as well.

- **Study Abroad:** This page consists of all the possible countries a student can go to for studies. The countries with their education system is well explained here where a student can research to understand the possibilities they have while choosing their destination. The destination as well as the facilities are well detailed here.
- **Services:**The company offers a free counseling session to the registered students where they can talk to experts about their desired study destination and institute. Than the company reaches out and provides further necessary services for the student to reach their goal. All the services provided by the company are shown in this page so the students don't have to face any difficulties during the processing.
- **Institutions:** As in the study abroad page the study destination are explained with their benefits, similarly this web page consists all the information about the institutions that are on the countries which makes it reliable and easy to choose by research.
- **Employee list:** This page will display all employees with information in the medical store.
- **About us:** The web page has details about the company and its policy that are followed and more other information.

# Chapter 2

# Literature Review

## 2.1 Relationship with Undergraduate Studies

Undergraduate classes emphasized on the understanding of how real-world applications work in general. Firstly, the course CSE 203, Data Structure taught me the ideas of several data structure and their applications which helped me build the basic building blocks in programming. In CSE 213,Object Oriented Programming, I learned how to use data as an object and also to use a modular code structure to make code shorter yet more efficient. In CSE 303, Database Management, a fundamental core subject that taught me how to plan and develop a project. This course taught me the fundamentals of a database and how it operates, as well as database languages. Converting ERD- Relations, Rich Picture, ER Model, Normalization and Structured Query Language. All of these skills came in handy when I developed and planned the project. Knowledge of MySQL, PHP, and the use of a local server were also useful in making my project dynamic. CSE 307, System Analysis and Design, this course explained how to use the Use Case Diagram, Use Case Scenarios, and SDLCs on a project. Lastly, CSE 307, Web Application and Internet, this was the most crucial course for my project, as it covered the most critical aspects of June 23, 2022.I learned HTML, CSS, Js, Jq, PHP, MySQL, and other skills that I directly applied to my project through constructing a web application. I learned HTML, CSS, Js, Jq, PHP, MySQL, and other skills that I directly applied to my project.

## 2.2 Related works

In 2010, the first transaction collector SSL COMMERZ started operating by being the first website. Additionally, the introduction of WiMAX increased internet speed at the same time, which promoted online platform. Basically, our country saw a limited version of ecom in late 90s with the idea to serve NRBs who were looking for options to send gifts to their beloved ones in Dhaka. Slowly and steadily ecommerce started to

grow from 2000 and in between 2008. Now a days it has become a necessity for any company to have their own site on the internet and almost every company established an online platform for their marketing and to enhance their opportunity. As with time the online workspace are increasing it has made everything a lot more easier and less time consuming.

# Chapter 3

# Project Management & Financing

## 3.1 Work Breakdown Structure

A work breakdown structure (WBS) is a deconstruction of a project that is visible, hierarchical, and focused on deliverable. It is a useful diagram for project managers because it helps them to work backwards from a project's product to identify all the actions required to complete the project successfully. For this project, we've also created a WBS which reflects our workflow, visualization of scopes, responsibilities in a structured way. WBS was created for our project to be managed smoothly and more efficiently in an organized way. A top-down approach was used to produce our WBS and a phase based WBS.[1]

The diagram consists of six elements and these element are the six phase of the project. All the present components under the elements are deliverables. The steps for completion of the project requires all the above primary steps to be followed thoroughly. The primary steps has child activity that is to be followed in steps for each primary steps to be completed. It is mainly done to gain a better understanding of the project through the analysis. A WBS also helps to avoid common drawbacks for projects such as missed deadlines, cost overrun or similar things as such. During a project completion, the WBS structure works as the blueprint of the difficult or entire task. Even if the project is very complex, when broken down into steps by WBS it becomes much more easier and less complicated.

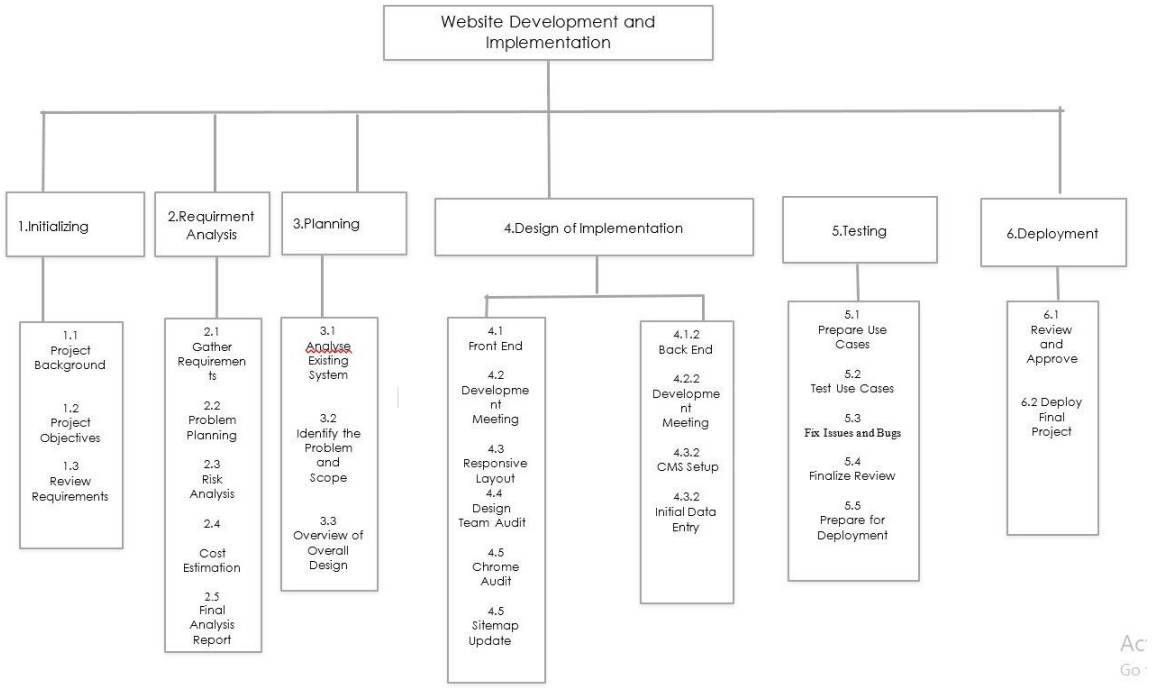



Figure 3.1: Work Breakdown Structure

## 3.2 Activity wise Time Distribution

The critical path is the longest sequence of tasks that must be completed from start to finish in order to successfully complete a project. The acts on the critical path are those that, if postponed, will cause the entire project to be delayed. Using the essential path, you may assess the entire length of a project and get a comprehensive picture of the project's genuine timeframe. As the duration of the project was 3 months, the total workflow and the time duration is shown by using the critical path method.

| **Activity** | **Duration (Days)** | **Work Percentage** |
|---|---|---|
| Initializing | 7 | 5 |
| Requirement analysis | 15 | 15 |
| Planning | 7 | 10 |
| Design and Implementation | 51 | 50 |
| Testing | 7 | 15 |
| Deployment | 6 | 5 |

Table 3.1: Process/Activity wise Resource and Time Allocation

## 3.3 Gantt Chart

Gantt chart, which is widely used in project management, is one of the most popular and useful ways to depict activities (tasks or events) against time. A list of the activities may be found on the left side of the chart, and a suitable time scale can be found along the top. Each action is represented by a bar, whose location and length indicate the activity's start, duration, and end dates. This allows you to quickly see various activities, start and end time of activity, activity duration etc.[**?**]

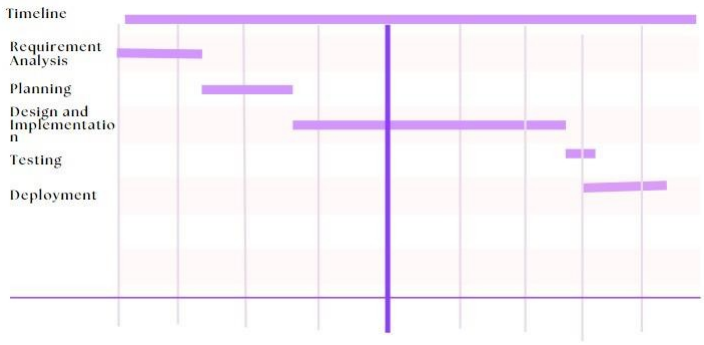



Figure 3.2: Gantt Chart

## 3.4 Activity wise Resource Allocation

Resource allocation is the process of assigning and managing assets in a manner that supports an organization's strategic planning goals.

- **Initializing:** : This is the first stage of the development process. This is the initial stage. Where brainstorming about the project took place.
- **Requirement Analysis:**In this stage we worked on getting the requirements for this project such as, list of all the criteria, including functions, design, and security, which was made after a discussion with the client. We were able to determine the project's budget and timeline with the help of additional internal investigation of the requirements. For example: How many computers will be involved and their specifications as well as how many developers or people are required.
- **Planning:**In this stage, we started planning our look and we set our goals and aimed on how to execute it. Also planned on implementing different features that will be very helpful for our management team.
- **Design and Implementation:** This is the stage where the main work started. After planning the UI, we designed the frontend. First, we set goals to develop different sections of the website. Every day we reached our goals and start developing

the next goal. We faced some issues while developing, that's why in the midway the process became slow as we had to find solutions for it. After completing the whole frontend, the next goal was to develop the backend. And just like the frontend we designed the tables and the data we were going to store in the server. The backend took less time than frontend as all the required fields were already decided while developing the frontend.

- **Testing:** In this phase, our website was almost ready and ready for testing. First, we tested using the dummy data and fake user. We checked the process in details. The errors we faced were corrected immediately. And this process continued until the website was error free.

- **Deployment:** Finally, upon the client's approval, the project is hosted on the client's domain and the CMS is given to them. They are also given any required and necessary training.

## 3.5 Estimated Costing

The total cost of this project is based on total manpower, resources and maintenance used in this project. The evaluated cost was 2,05,000 taka. This can increase in the future if changes are brought.

| **Work Distribution** | **Costing** |
|---|---|
| UI/UX Design | 50,000 |
| Front End Development | 50,000 |
| Database Design | 30,000 |
| Website Content Development | 30,000 |
| Admin Panel Development | 1,20,000 |
| Total | 2,80,000 |

Table 3.2: Estimated Costing

# Chapter 4

# Body of the Project

## 4.1 Work Description

Study Abroad Website Development is a project under Creative System Limited. The main idea of this project is to build an online based environment where policy holders can apply to get his policy related information. After approving the application by any authorized user, policy holder can check his policy related information which will be manually synchronized from the Study Abroad Website Development.

The languages used for the frontend are"

- HTML/CSS
- Bootstrap
- JavaScript

Languages and frameworks use in backend are:

- PHP
- Laravel (framework)
- MySQL (Database)

The daily report of my work progress was monitored by mt company supervisor, moreover I was given new tasks by him everyday.

## 4.2 Requirement Analysis

**Functional and Non-Functional Requirements**

Functional requirement are the ones that are used by end users when the specifically request a condition that is certain according to the capacity of the system. These functions need to be included in the system by being the part of the contract. The way these are represented by the input of the system, operation, and the outcome that is required. They are mainly the user's requirements. [2]

A non-functional requirement refers to the process of how a system should be and also its usefulness .Every requirement that is not come functional requirements can be considered as non-functional requirements. **Functional Requirements:**

- After entering the user id and passwords, the system will authenticate if the user is valid or not. If the user is not valid then the system will display a message.
- Admin will be able to add/edit/delete user and information.
- To find information user need to search in search bar.
- To create a counselling session the employee needs to select user id.
- Employees are able to update their status.
- Employees are also able to see their progress report.
- Manager will be able to view all user statistics.

**Non-Functional Requirements:**

- All kind of data validity will be checked and if any data is invalid or not found the system will return a 404-error code.
- This system can be used for any consultancy firm management team around the globe.
- There will be a backup of user data for safety and in case the system fails.
- This system is very user friendly and easy to navigate.
- This system has instant response time.
- This system does not require high end device or equipment, any web browser can be used to access this system.

## 4.3 System Analysis

### 4.3.1 Six Element Analysis

| Process | Human | Non-Computing Hardware | Computing Hardware | Software | Database | Communication and Networking |
|---|---|---|---|---|---|---|
| **Add/ Manage Account** | Admin | - | Keyboard, mouse, computer | Web Browser | MySQL | LAN/ WAN |
| **View Data** | Admin | - | Keyboard, mouse, computer | Web Browser | MySQL | LAN/ WAN |
| **Manage User** | Admin | - | Keyboard, mouse, computer | Web Browser | MySQL | LAN/ WAN |
| **View Data /manage User** | User | - | Keyboard, mouse, computer | Web Browser | MySQL | LAN/ WAN |
| **Edit/Delete Data** | Admin/ Manager/ Salesman | - | Keyboard, mouse, computer | Web Browser | MySQL | LAN/ WAN |
| **Administration Login** | Employee/ Manager/ Admin | - | Keyboard, mouse, computer | Web Browser | MySQL | LAN/ WAN |
| **User Login** | Manager | - | Keyboard, mouse,r computer | Web Browser | MySQL | LAN/ WAN |

Table 4.1: Six Element Analysis of Study Abroad website student enrollment

### 4.3.2 Feasibility Analysis

A feasibility study is an assessment of the practicality of a project or system. A feasibility study aims to objectively and rationally uncover the strengths and weaknesses of an existing business or proposed venture, opportunities and threats present in the natural environment, the resources required to carry through, and ultimately the prospects for success.[3]

**Technical feasibility:** Technical feasibility is the assessment of whether the existing resources and technologies owned are sufficient for the development of the project. This assessment helps to identify if the requirement in terms of the technical skill of the team, technology used, hardware and software used are good enough to complete the project and also provide support in the future. Creative System Limited company is very well known for their service in the IT field. It has also worked with many known organization to provide them the technical skills they required. This project is technically feasible because all of the necessary hardware, software, and other technical requirements are available.

**Economical feasibility:** This analysis is conducted to find the cost and the benefit of the project. A detailed cost for the website development is estimated, which includes all the cost breakdowns. This cost is then generally compared to whether the company will be economically beneficial from the website. Since there is no charge for the visitors of the website, Creative System Limited only aims to benefit from their website visitors and turn them into potential customer.

**Legal Feasibility:** Before moving forward with this project, all legal restraints were considered, including data protection statutes, social media rules, and zoning laws, to ensure that it would not face any legal issues in the future

**Operational feasibility:** People are now more used to work from home and services and the ongoing pandemic situation has also increased people's dependencies on online services. People don't want to take the risk of going out because of the pandemic and also the bad traffic in Dhaka City. This website will help solve this problem for prospective student, they can get all the details of their desired study destination to help them make a decision, without visiting office physically.

**Scheduling feasibility:** The project was planned very well before starting which helped to complete the project in due time. Creative System Limited is very strict on deadlines so the working process is designed accordingly so the deadline could be met without any

obstructions. All the tasks of the project can be completed within the deadline and the website can handed over to the clients successfully.

### 4.3.3 Problem Solution Analysis

Many problems were encountered while completing the project and they were solved through study and analysis. Some of problems can be shortlisted and mentioned below:

**System dynamic capability:** The main requirement for this system was that it needed to be fully dynamic and easily customisable and while trying to fulfill this requirement the problem was detected. There were some problems while building relationships with entities. We had to go through trial and error a few times. After research and implementation this problem was solved and it was made fully dynamic so that it can adapt to any other requirements with only minor changes to the system.

**Updating data:** This issue arose during the development of the system's back end. The system requires the data to update with each edit. But it was failing to do so. After the error was detected and solved, the edited data was shown error free.

### 4.3.4 Effect and Constraints Analysis

Each project has its own set of constraints and risks that must be managed to ensure the project's ultimate success. Project managers have three major constraints: time, scope, and budget. The triangle of project management is often known as the three limits. Extending the project's scope, for example, will almost certainly require more time and money, but shortens the project's other aspects.

**Constraint 1 - Time:** Timetable can save money while also reducing the scope. In the development of any undertaking, time is vital. All employees in our project worked from home and gave a daily update at the end of the day. As a result, our project stayed on track, and no delays were recorded.

**Constraint 2 - Cost:** For a project's budget one must include both fixed and variable costs, such as materials, permits and the financial impact of project team members. The budget was previously approximately because many other estimations were previously made.

**Constraint 3 - Scope:** A project may have its boundaries and that is defined by the scopes available. It defines the trait the organization and the project must gain.There was no backtracking in our project because the scopes were defined from the start. It also had the procedures to carry them out.

## 4.4 System Design

### UML Diagrams

UML is an architecture. Mainly used in designing and than implementing the design in the system. It stands for Unified Modeling Language.An application code may contain a thousand lines and to track the relations is very tough.It becomes easier with this diagram and UML diagrams are devided into two parts and they are components and sub-components[4]

### Activity Diagram for Admin

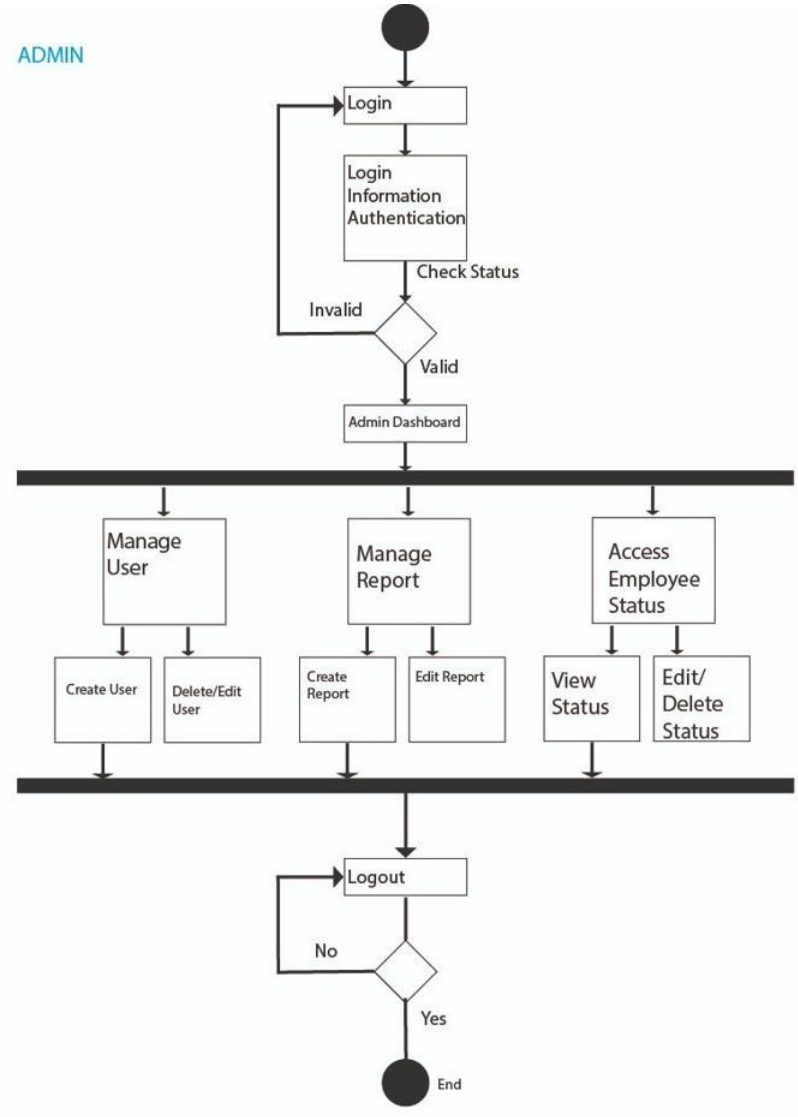



Figure 4.1: Activity Diagram for Admin

**Activity Diagram for Employee**

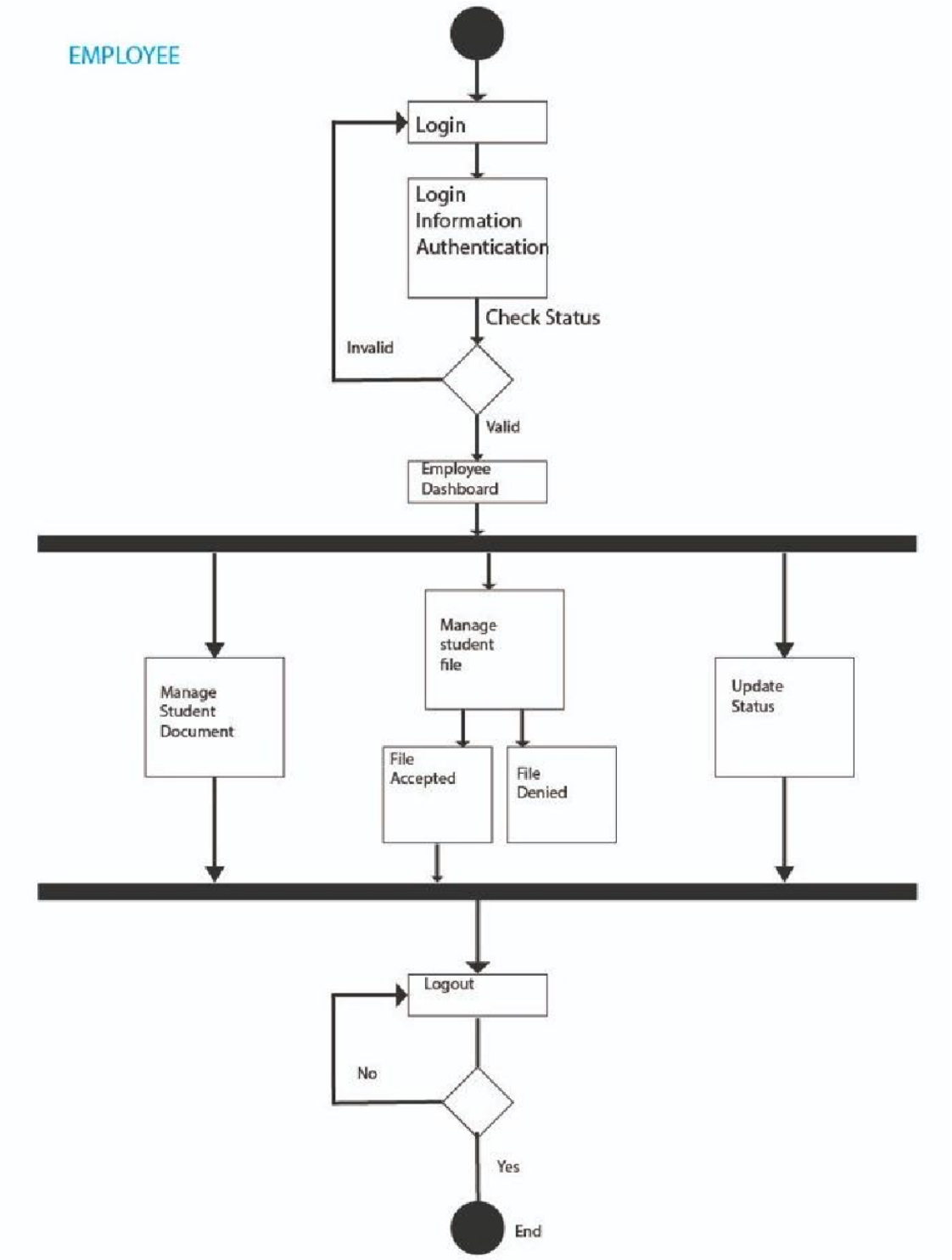



Figure 4.2: Activity Diagram for Manager

### Activity Diagram for Students

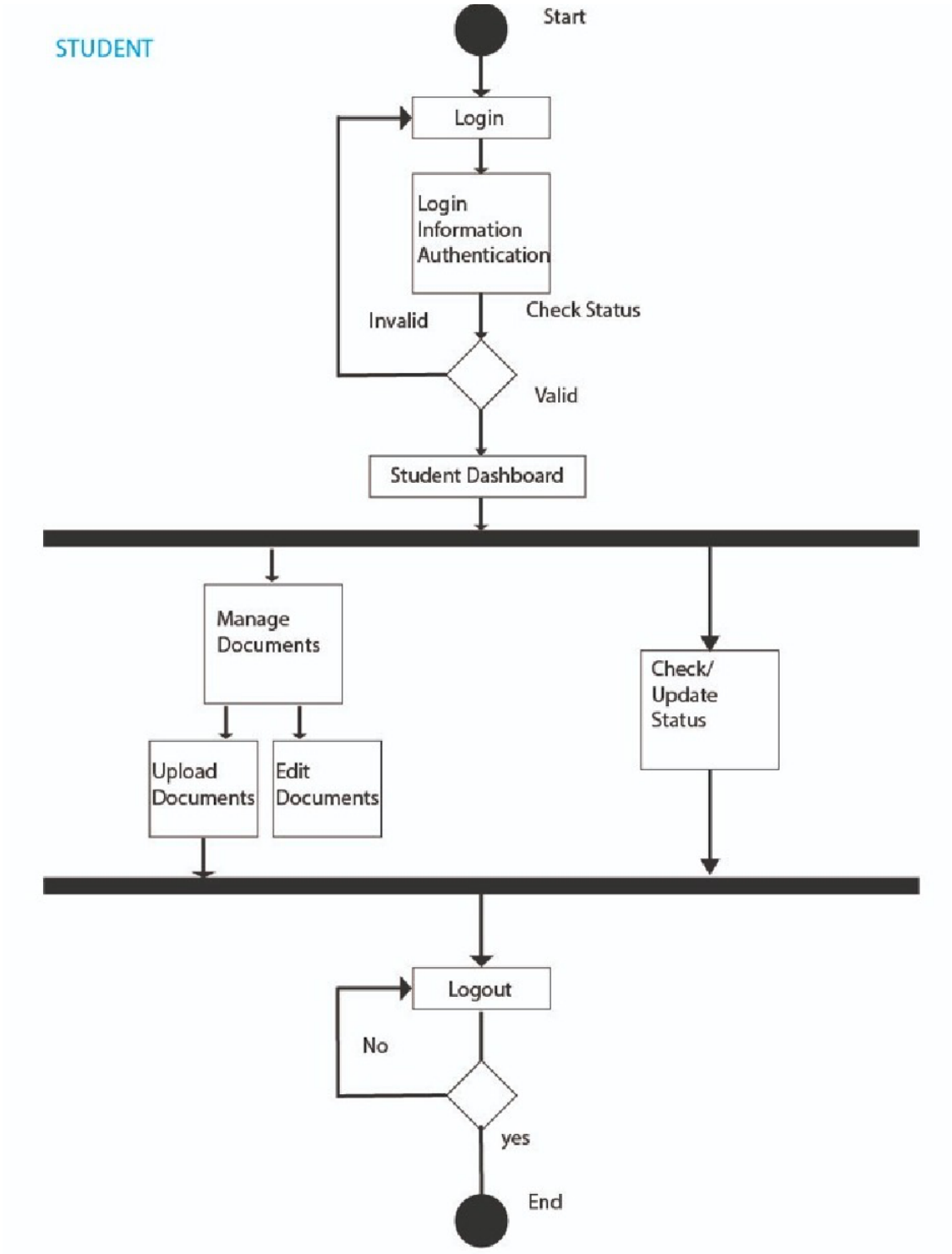



Figure 4.3: Activity Diagram for Salesman

**Use Case Diagram of System**

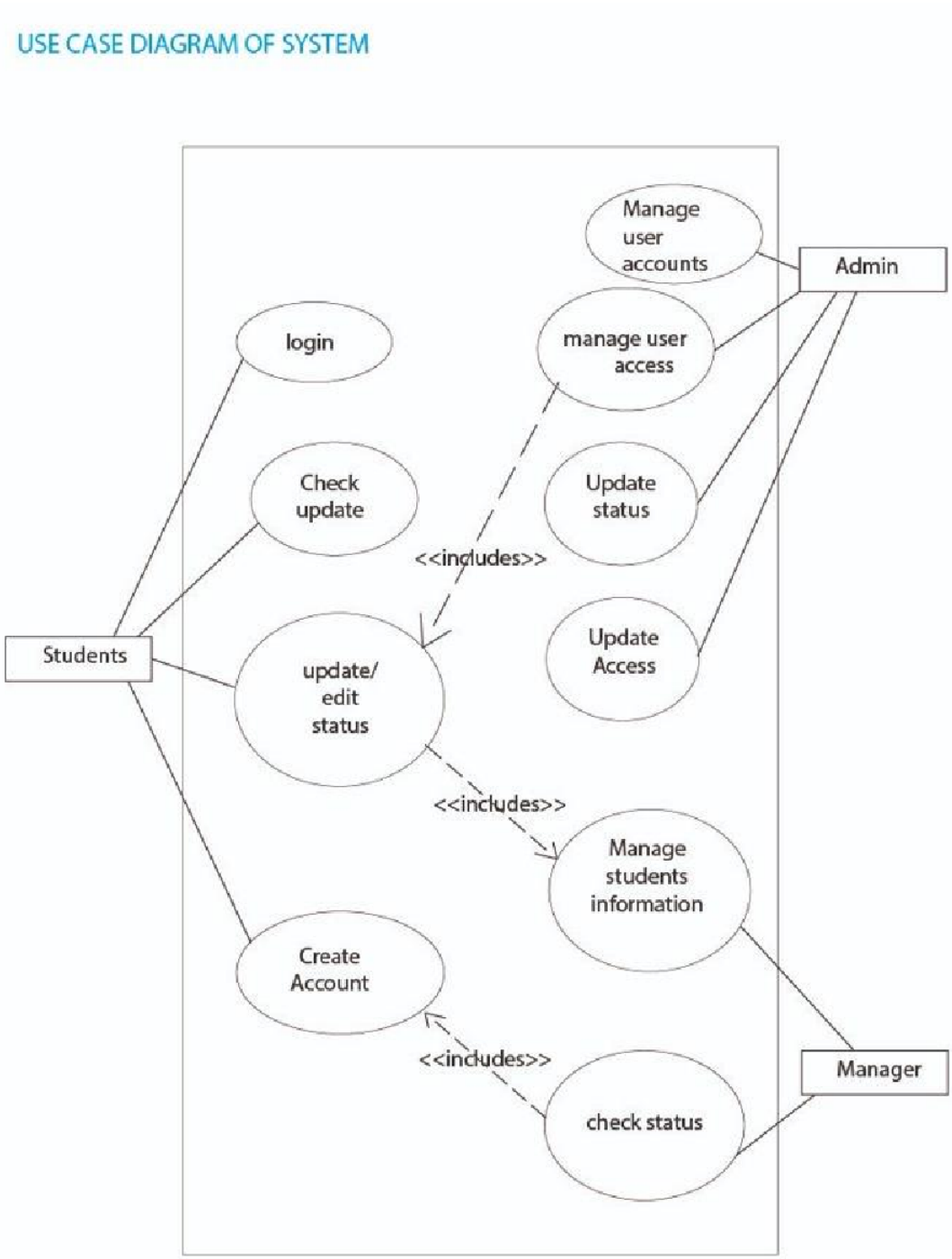



Figure 4.4: Use Case Diagram of System

### Architecture

Software architecture is a set of decisions which is based on various criteria. This process is related to the software development process. This framework do provide some properties and they are: security, performance, traceability, and availability. The project used the MVC software architectural pattern.

**The reasons for choosing the framework is as follows:**

- For large size applications it is difficult to organize it properly. But organizating helps to code with less errors as well as it is even easier to understand. This architecture provides this benefit. Also this way it is easier to find a portion of the code that is desired anytime without much hassle.
- Our main objective in this project was to create the system to be dynamic and so that similar organization could use it with only a little changes. In that case, this framework is one of the most modifiable one. Considering this aspect the architecture was decided.
- The framework helped in the initial phase by giving the developers an outline showing how to arrange the ideas into code. This being a easily maintainable application was a bonus.
-

The controller takes input from the application's view, converts it to demand for the model using logic implemented in the controller, the model then fetches data from the database and transfers it to the controller, who then passes the data received from the model back to view for the user to see in a graphical interface.

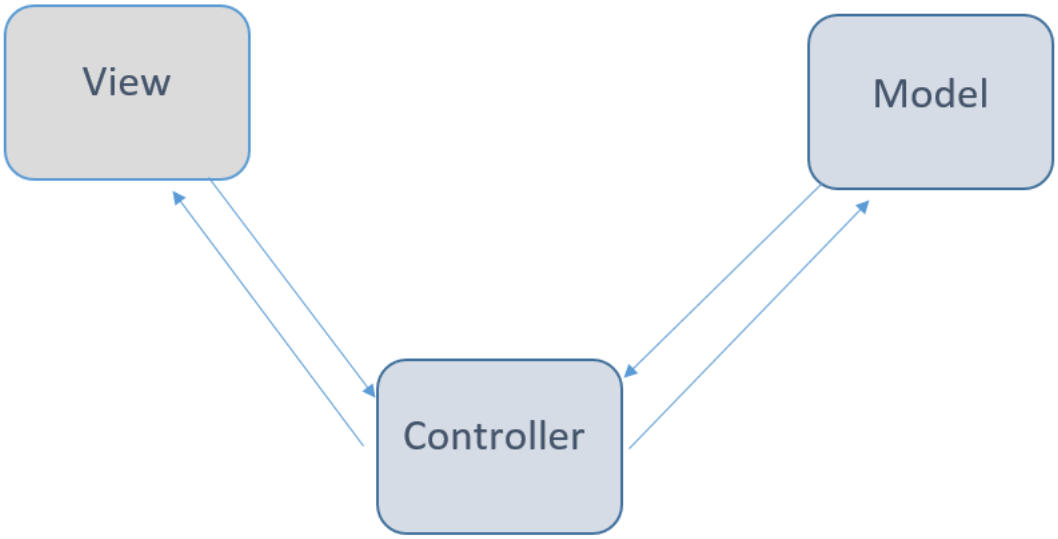



Figure 4.5: MVC Architecture

## 4.5 Implementation

To implement this student enrollment system, we have used HTML, CSS, Bootstrap in front-end. And for back-end we have used PHP, Laravel. MySQL was used as relational database. This system can be used by any consultancy farm for manageing their internal tasks. This system is pretty much easy to navigate and very user friendly.

**The implementation of the registration process**

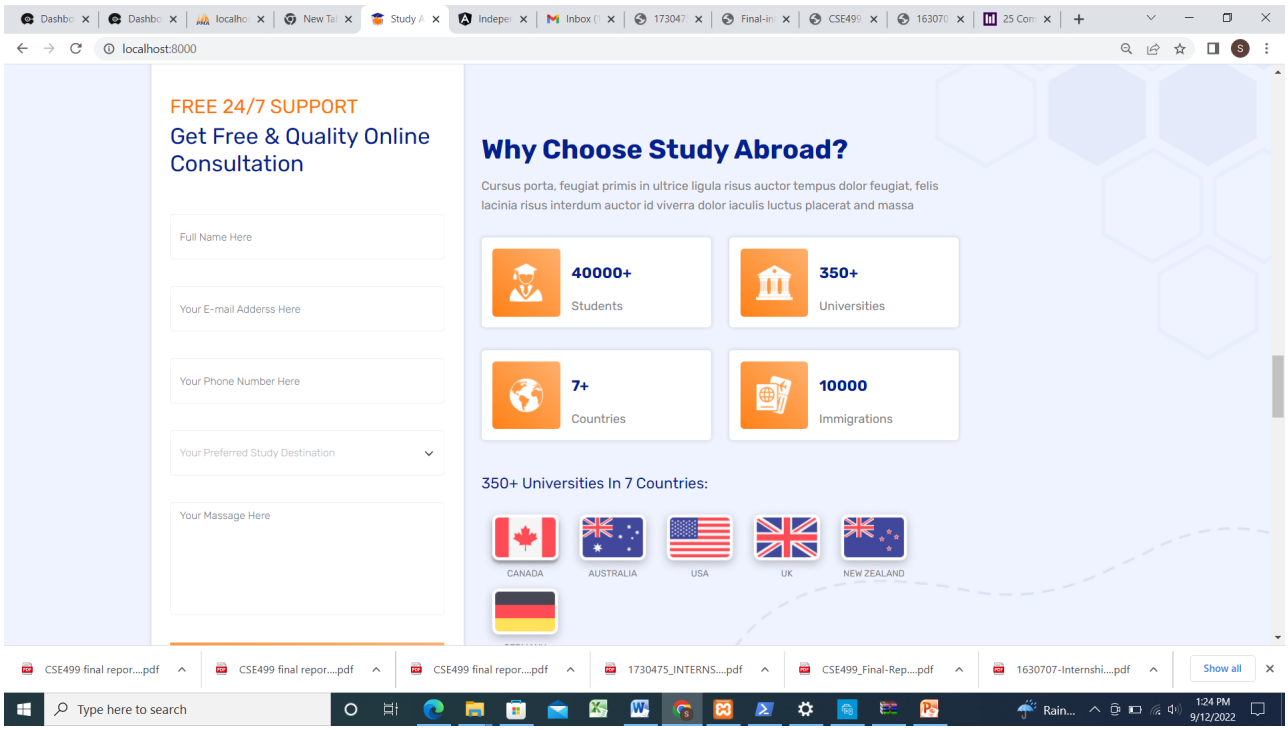



Figure 4.6: The input method

## 4.6 Testing

For testing, here I am showing one features of our system which is newly registering a member.

### Input

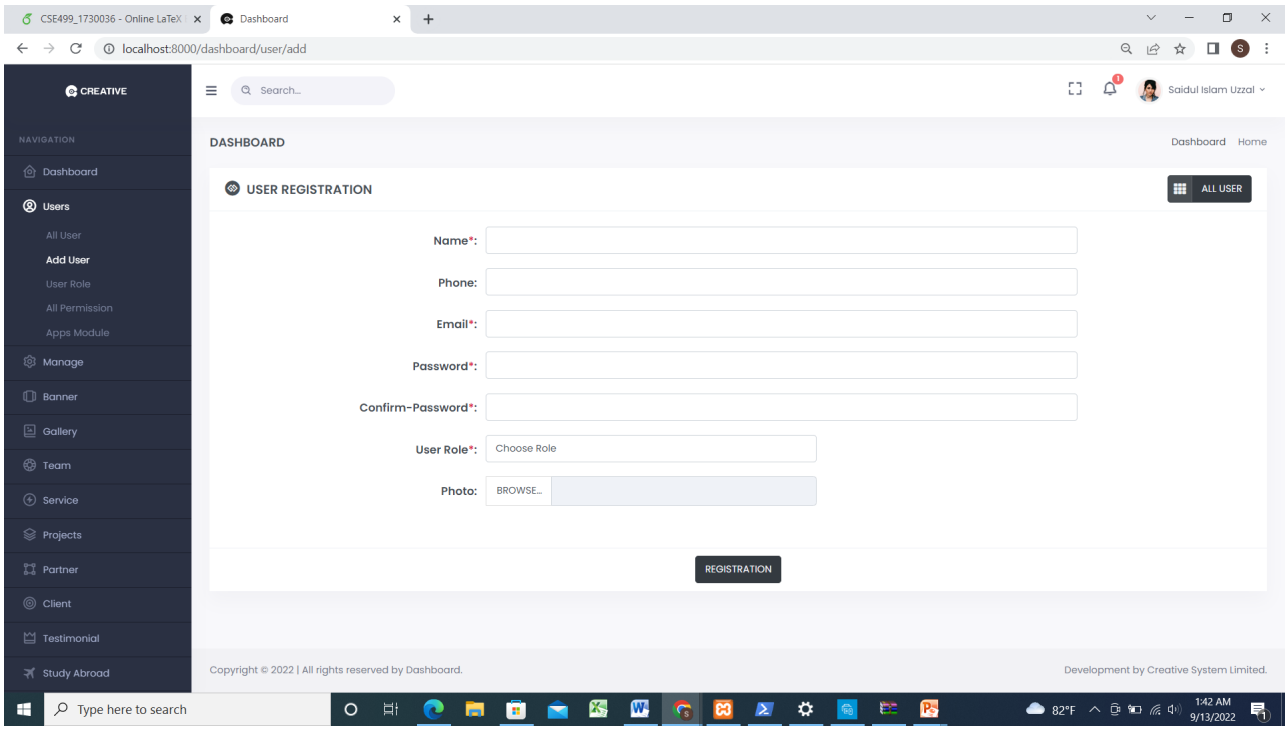



Figure 4.7: Input user information for user registration

From the dashboard we see options and from that when we click users we get option to add user. A form is visible for the user to fulfill so that they can fill in the form with necessary information and register. Below is a screen shot of the User registration form asking the name, phone , email , password, confirm-password, user role and photo. All the fields needs to be filled before pressing the registration button for a successful registration.

### Output

The process details after the input is shown below:

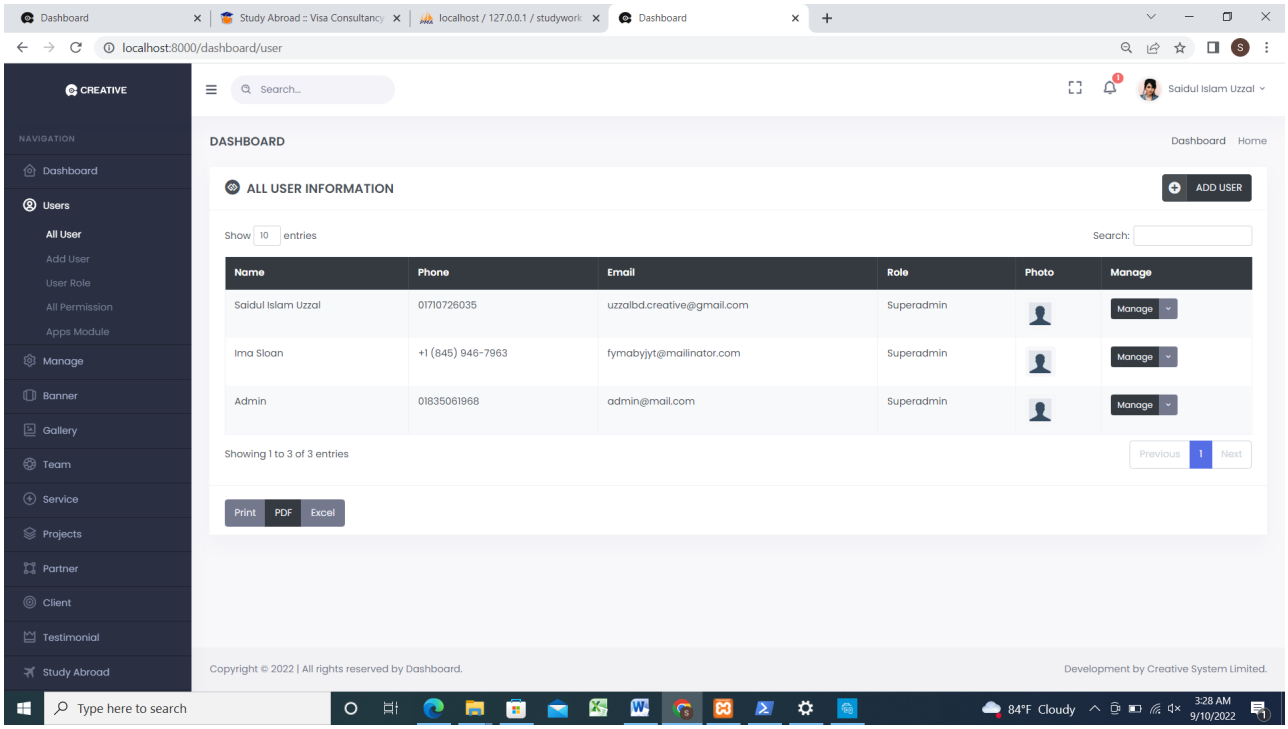



Figure 4.8: The list of user after registration is successful

After the successful registration, we see an option for all users where we find the list of all the registered members till now. The list is serially kept according to the date and time of registration. The list can be printed directly by pressing the print button on the leftmost corner. Beside the print button, there is a PDF button with which the user list can be downloaded in a PDF format. Similarly, beside the PDF button there is another button named Excel with which the list of the users can be downloaded and viewed in EXCEL sheet. The three buttons are kept serially. Just above the user information table, in the right most corner at the top there is a button named ADD USER which leads to the form for new members to register.

# Chapter 5

# Results Analysis

This part will contain the screenshot of some main features of the built website.

The project was mainly done with an aim to create a modern website which can promote and expand the marketing range of the company as well as to create an easier and hassle free platform for the clients. In a way the website is believed to attract more clients and give opportunity for the company to grow because with this the work of the clients becomes much easier. Thus the website was created keeping the requirements in mind given by our client.

The main features of the website are presented below:

### User registration

#### Create an account

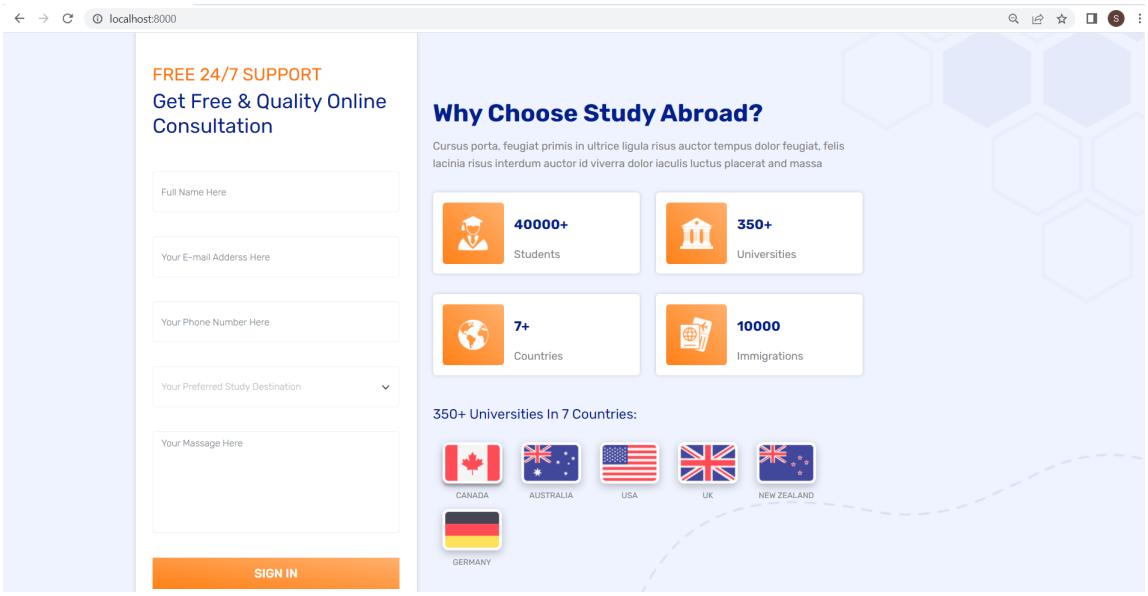



Figure 5.1: Create User

User need to fill out this form to register successfully. The user has to give correct

information and fill all the mandatory boxes to be allegibile for registering.

## Login Page

### Login or Register

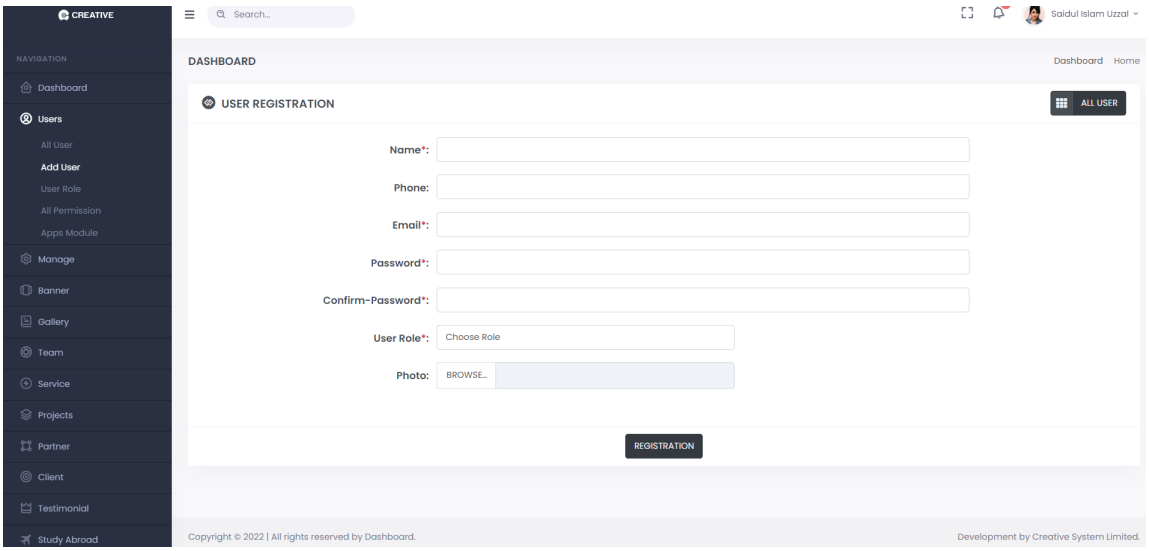



Figure 5.2: Register User

User need to fill out this form for a successfully. Than this account can be edited, viewed and searched according to need.

## View all Users

### Home view of all users

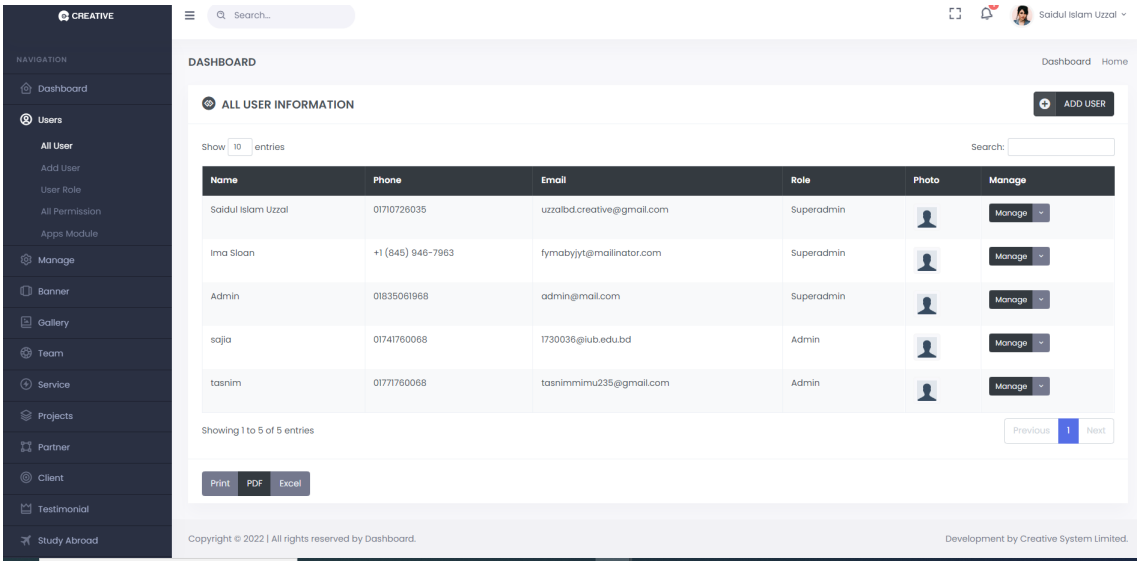



Figure 5.3: All Users home view

This is the home view of all the users that has successfully registered. They are shown serially according to their date and time of registration.

## Search by

### Search by name, phone or email

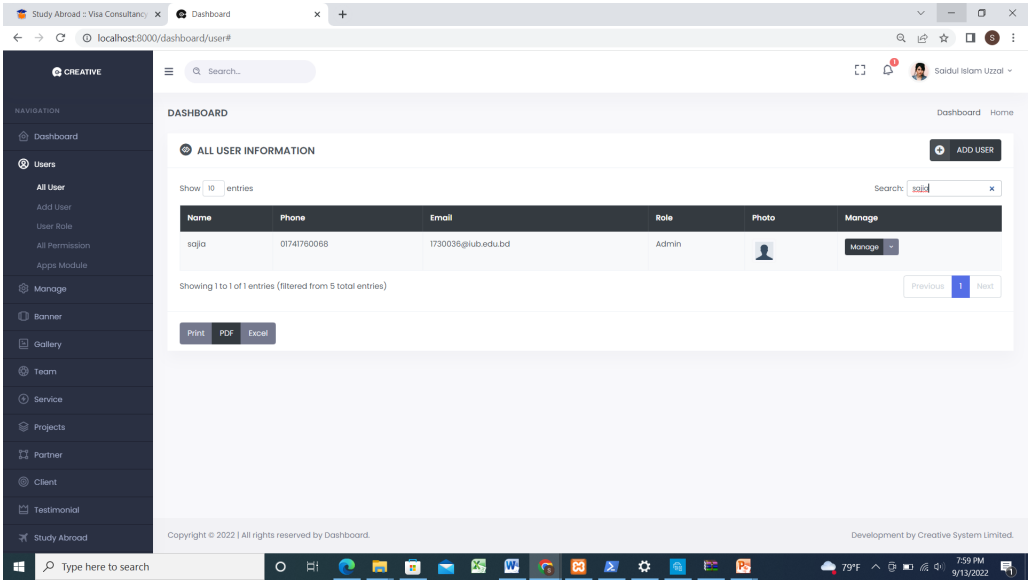



Figure 5.4: search with information

The upper right corner consists of a search bar in the home page for all viewers. To search an user an information must be searched such as name, phone or email id. This was the system filters all the user and shows the expected result if the user is registered.

## View User

### View User Information

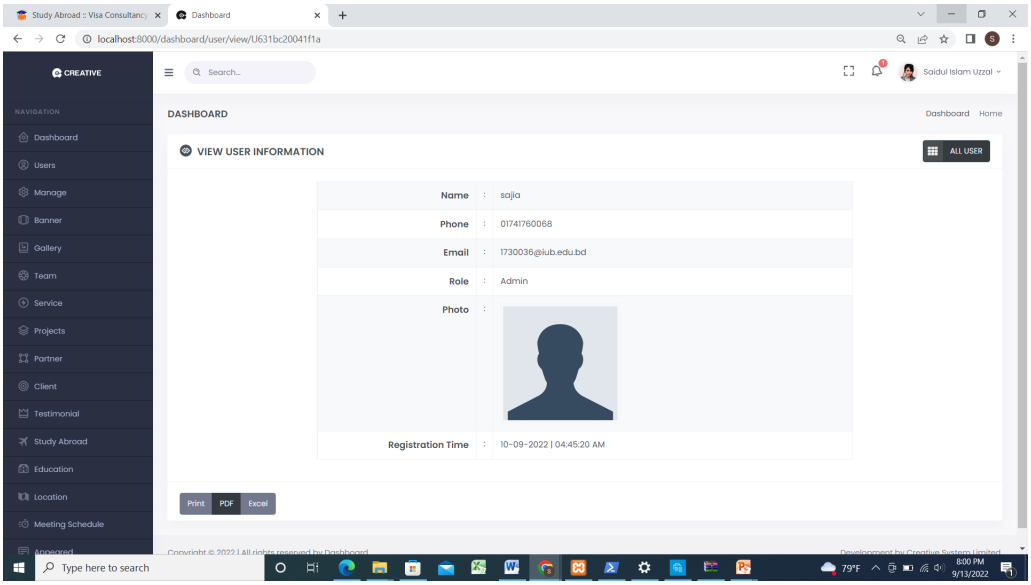



Figure 5.5: View User data

Again in the all user home page at the end of every user there is a manage button and clicking the arrow shows a view option. When we click the view option, the profile of the user comes into view.

## Edit User Information

### Edit User

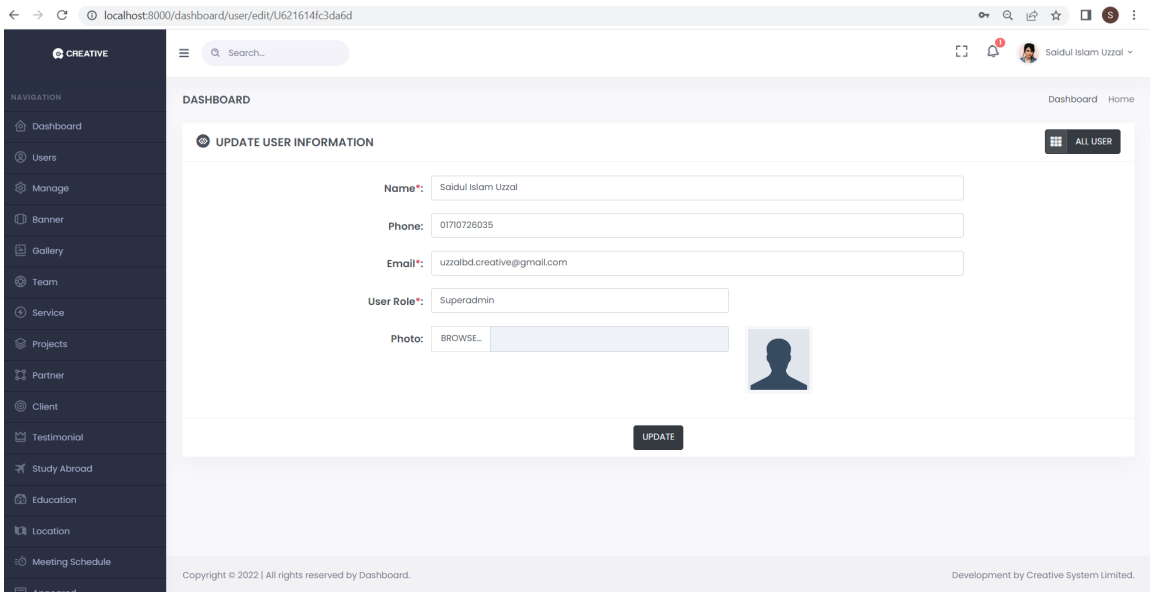



Figure 5.6: Edit user information

This is the page where already registered user will have access to edit user information. Here they can delete the previous information provided and newly attach new ones which will be saved for further use.

# Chapter 6

# Project as Engineering Problem Analysis

## 6.1 Sustainability of the Project

In this modern world full of competition, every system needs to give attention to sustainability. It is a challenging task but to survive in long run ensuring that the purpose of the system is served to the consumers, sustainability is essential and plays a vital role. In software and web development cases the systems are made sustainable in order to ensure that it serves indefinitely without any problems both on the owners and the user side. To ensure sustainability in our project the website is designed in such a way that the website is accessible regardless of the environment of the user's machine. The website we created is not dependent on the user's computer specification, operating system, resolution or internet speed. The website will run on all computers, smartphones using the commonly used browsers. The sustainability of the website will also be maintained through regular maintenance of the website and its server. The HTML, CSS, JS and back end code for the website is well optimized. By reducing repetitive codes, studying different scripts that are used, and maintaining proper coding standards it is made sure that the website performs well and easily accessible by users regardless of the device's specification. [5]

## 6.2 Social and Environmental Effects and Analysis

**Social Effect:** Our website helps student to reach their goals of higher studies abroad. Through website it is easier for students to select their place of study and work with the employees accordingly. Previously, they had to come to office for submitting their important papers that was required for processing but now they can simply send scan copied from home as well as make payment online. The website is designed and

developed to ensure high efficiency with less usage of resources. We tried to optimize our code, media contents as much as possible. The website is ad free, less redirection, and only basic plugins are used, all these helping in overall optimization, resulting in using less power and saving energy. Our office environment is equipped with energy saving machines and equipment and operated fully digitally. We are always aware of not to waste electrical energy in our office environment. This allows us to be energy efficient and also helps us with less usage of paper contributing to a positive effect on the environment.

**Environmental Effect:** In this field the factor that will be considered is to reduce physical work. Normally, customers needed to go and visit the office for further information or to get facilities but now it can be easily done online through this platform.

## 6.3 Addressing Ethics and Ethical Issues

Our world is getting more involved into technology thus it's a necessity to address ethical issues that follows the improvement. Regularly, many confidential data are being transferred and it must be ensured that it does not get breached by any means. Our website will have a lot of personal data about students and employees as well. Thus, we used end to end data encryption to not face this problem.

# Chapter 7

# Lesson Learned

## 7.1 Problems Faced During this Period

The first problem that had to be faced by me during the project was my lack of practical knowledge to build a productive level software. The theories learnt in the courses were mainly theoretical. In that circumstance it was required for me to read documentations to understand the process of implementation of the module into a love project. For that i resorted to reading and following tutorials which was of great help. Not only did I resort to reading, the collegues I worked with were kind enough to teach me first hand.

A corporate environment was completely new for my experience and thus it was difficult to cope with at first. Gradually when the realisation struck of how I was required to manage my work as a team, than gradually it was easier for me to accept it.

During this internship it was needed for me to learn new framework and work in Xampp which were both completely new to me. Initially it was very difficult to work error free. But with practise and research it was completely doable.

## 7.2 Solution of those Problems

Being new to Laravel framework, I had to read lot of documentations, go through Youtube tutorials, learning all the ins and outs of the framework while developing the system. As I was the only developer working on the backend system of the software, I had to plan out my work plan for the week ahead so that I could deliver the system within the given timeline.

For that, I had to read many documentations and learn the basics to implement it on the project work.

# Chapter 8

# Future Work  Conclusion

## 8.1 Future Works

As this project is still ongoing, we are planning to add more futures to it for making it more user friendly as well as beneficial to the company. We are deciding on adding an auto attendance record for salary calculation. Through this the employees can login to give attendance which will be later saved in the database. if the user fails to do so they will be considered as absent. This was the total number of attended days can be counted very smoothly and virtually making it hassle and error free. Another feature is developing a live chat bot system. Presently, whenever a student registers, that can select a date and time in which a counsellor will accept their request and free their schedules to aid their needs. But with introducing a live chat box this process becomes easier. Students will be able to verify any of their queries live in the present time and will not have to wait for approval.

## 8.2 Conclusion

Throughout the entire project work I had a wonderful time learning new things. Not only did I learn new programming languages, I also learnt many soft skills such as problem handling, managerial skills, time maintainance as well as team work. Throughout my entire time I had immense help from my supervisor as well as co-workers whom I could ask during any confusions I faced. They were very supportive.

In conclusion, every moment working on this project was a valuable lesson and experience. I hope to use this experience in the future.

# Bibliography

[1] "Work breakdown structure (wbs)." https://www.projectmanager.com/guides/work-breakdown-structure.

[2] "What are functional and non-functional requirements and how to document these." https://enkonix.com/blog/functional-requirements-vs-non-functional/.

[3] "Types of feasibility study in software project development." https://www.geeksforgeeks.org/types-of-feasibility-study-in-software-project-development/.

[4] "Uml - standard diagrams." https://www.tutorialspoint.com/uml/uml_standard_diagrams.htm.

[5] "Sustainability in software development." https://blog.scottlogic.com/2019/12/30/sustainability-in-software-development.html.

# An Undergraduate Internship/Project on Study

# Abroad Website By

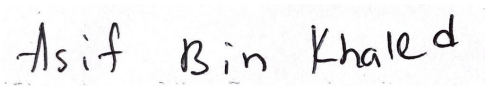
**Sajia Tasnim**

Student ID: **1730036**

**Summer, 2022**

## Consent Form

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



(Signature of the Supervisor)

Md. Asif Bin Khaled

Department of Computer Science & Engineering

Independent University, Bangladesh