

An Undergraduate Internship report on BiMee Tutorial/Blog Website

By

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Summer, 2021

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September 6, 2021

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

Department of Computer Science & Engineering

Independent University, Bangladesh

Attestation

This is to certify that the report is completed by me, Mohasin Haider Chowdhury (1630856), submitted in partial fulfillment of the requirement for the Degree of Computer Science and Engineering from Independent University, Bangladesh (IUB). It has been completed under the guidance of Sheikh Abujar. I also certify that all my work is genuine which I have learned during my Internship. All the sources of information used in this project and report has been duly acknowledged in it.

Signature	Date	
Mohasin Haider Chowdhury		
Name		

Acknowledgement

I would like to firstly like to thank the Almighty Allah for giving me the endurance and the ability to work hard, for giving me the ability to write this report to and for giving me the chance to be able to do my internship at BiMee. Also, my parents for their unconditional love and support that have sustained, nurtured, and got me ready for this challenge.

I would like to thank my honorable faculty and supervisor Sheikh Abujar, Lecturer, Department of Computer Science Engineering, Independent University, Bangladesh, for his invaluable guidance, patience, time, constructive criticism and thoughtful advice regarding various aspects of my internship and preparation of this report.

I would also like to thank Mr. Bijoy Jabbar for selecting me as an intern for BiMee. I would also like to thank Arindam Kabir for guiding me throughout my internship and helping me solve problems which would otherwise be extremely unlikely for me to solve.

And lastly, I would also like to express my gratitude to all my colleagues for helping me throughout and making the Internship process so much enjoyable. Without them, this journey would have not been easy.

Letter of Transmittal

Mohasin Haider Chowdhury, 1630856

July 1st, 2021

Sheikh Abujar

Lecturer

Department of Computer Science and Engineering

Independent University, Bangladesh.

Subject: Internship Report submission Summer, 2021.

With due honor and respect, I, Mohasin Haider Chowdhury from Summer 2021, Section

7, would like to submit my internship report. This report is written to kindly inform you that I have completed my internship program and its report My internship was conducted from 1st July 2021 to date. I completed my internship at BiMee.

This report is based on my experience and the work I did at BiMee during my internship. The primary goal for my internship was to gain experience in all the different technology related fields of the company, including research and development, documentation, content-writing, software development, and to get acquainted with software development processes and practices.

Over the period of my internship at BiMee, I found out that I learned and applied a lot of new skills and technologies. The company comprises of a small team of software craftsmen who learn, collaborate, and innovate together.

I would like to thank you immensely for all your guidance and support. I hope and pray that this report fulfills all the requirements and is up to your expectations.

Sincerely,

Mohasin Haider Chowdhury, 1630856

Evaluation Committee

Signature			 	 		 	
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Abstract

BiMee is one of the pioneering companies in Bangladesh that has been working on digitalizing the education system and providing programming and robotics education to children. BiMee has been working with Venturas, which is a Japanese company and they have formed STEMON BD through a joint venture project. They have been working on encouraging children to learn about robotics and programming and prepare them for the upcoming technological boom. The main purpose of BiMee is to digitize the education process. BiMee also hopes to make the general education system more efficient through the introduction of advanced technological changes. In Stemon BD the MIT created SCRATCH program is used to educate children. The STEM curriculum is followed during this course. BiMee is also working on a software to help the general education system more efficiently and take it to a digital model.

During my internship I got introduced to the technologies that are used in the Development phase. I got to learn about useful skills and tricks in developing a fully functional and responsive website. In this timeline I progressively got familiarized with some of the Software Engineering Process and tools which are involved in taking an application from inception to development and production.

After completing all basic learning sessions, I was assigned to work on a company project where my task was to work in a team to develop a website for Tutorial/Blog and the idea of the website is to provide quality education and use the advancement in technologies such as artificial intelligence (AI) and machine learning (ML) to provide the best to the students. BiMee has been working to spread their branch throughout the country and provide digital IT education to rural areas as well as urban areas. The company also aims to spread its branches outside of Bangladesh in future.

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Chapter 1

Introduction

1.1 Overview/Background of the Work

Online learning for students and for teachers is one of the fastest growing trends in educational uses of technology. School, Universities and Educational board closures across 188 countries due to the COVID-19 outbreak made remote learning a necessity. Students and Teachers uses a medium to conduct classes (Zoom, Google meet etc) like their daily school schedules/routines. Online learning can be enhanced by giving learners control of their interactions with media and prompting learner reflection. Even when the pandemic dies down, accessible, effective, and flexible education is here to stay. The internship program is designed to provide the opportunity to have real world practical experience based on the field of the major. This gives an idea about how the corporate world works and prepares for their future endeavors. This also helps to build good relations with people from the corporate world. BiMee is one of the pioneering companies in Bangladesh that has been working on digitalizing the education system and providing programming and robotics education to children. BiMee has been working with Venturas, which is a Japanese company and they have formed STEMON BD through a joint venture project. They have been working on encouraging children to learn about robotics and programming and prepare them for the upcoming technological boom. The main purpose of BiMee is to digitize the education process. BiMee also hopes to make the general education system more efficient through the introduction of advanced technological changes. In Stemon BD, the MIT created SCRATCH program is used to educate children. The STEM curriculum is followed during this course. BiMee is also working on a software to help the general education system more efficiently and take it to a digital model. BiMee is trying to cover all of Bangladesh and provide technological education throughout Bangladesh. Their aim is to provide technological education and make the future generation of Bangladesh technologically advanced.

1.2 Objectives

The main objective of the project is to ensure easy communication between the students, teachers and parents. After the world was hit by the global pandemic, the education industry has faced a huge blow, as it is not possible to take physical classes upfront anymore. This website will allow students to get all the relevant information and resources about the courses and classes without the hassle of personally asking around to the teachers or administrators. The enrolled students are provided with the google meet links to attend classes. To develop a platform where the students can access the lectures/resources to their convenient. During the pandemic, the parents were unable to pay the fees physically, so there was a need to implement a payment gateway system into the website so that parents can pay fees digitally. Moreover, StemonBD had potential international students and hence there was a need for an international payment gateway system even before the pandemic. The most beneficial factor of the website is that, because it is an online-based system, people can use it on their computers and phones, at any time.

Vision

Digitizing the general education process in Bangladesh and making it more accessible and efficient.

Mission

- Efficient education system
- Leverage strengths of emerging technologies in the education system.
- Make programming easier for interested students through tested curriculum.

Goal

• The goal of the organization is to provide quality education and use the advancement in technologies such as artificial intelligence (AI) and machine learning (ML) to provide the best to the students. BiMee has been working to spread their branch throughout the country and provide digital IT education to rural areas as well as urban areas. The company also aims to spread its branches outside of Bangladesh in future.

1.3 Scopes

Features available to the user after the development of this website

- Home page- The first page the user will see after visiting the website
- All Article page- Display of all the Articles posted by the company
- All Video Tutorial page- Display of all the Video Articles posted by the company
- Login/Register Page- This is where the students/admin registers or login as per to the necessity.
- Single Article Page- This is the page where the user can read the full article and comment on it if they logged in.
- Single Video Tutorial page- Displays the video tutorial to the user and they can also comment on it if they are logged in.

Features available to the admin after the development of this website:

- Data Tables to view user, author, articles, tutorials and comments data.
- The Data Tables provides real-time search, sorting, pagination, delete and export to CSV functionalities.
- The admin can create authors, articles and video tutorials from the Admin Panel.
- A WYSIWYG editor has been implemented in the forms to allow the admin to style their articles and/or description.

Chapter 2

Literature Review

2.1 Relationship with Undergraduate Studies

CSE 213, Object-Oriented Programming: In the developing industry most of the data is represented as an object. It also taught how to write modular programs which made codes less repetitive and more reusable. CSE 303, Database Management: This was the first course that taught me how to design and plan a project. It covered popular planning and strategy practices such as System Development Life Cycle, Rich Picture, Requirement Analysis, Entity Relationship Diagram, Business Process Model and Notation Diagram, and many more. CSE 307, System Analysis and Design: This course gives an overview of different SDLCs and how to adopt each one of them to the project. CSE 309, Web Application and Internet: This is the course where the development of web applications was taught. It covered very important technologies that are highly in demand in the industry, such as HTML, CSS, JavaScript, jQuery, View Engines (Handlebars and embedded JavaScript), Node.js, Express.js, MongoDB.

2.2 Related works

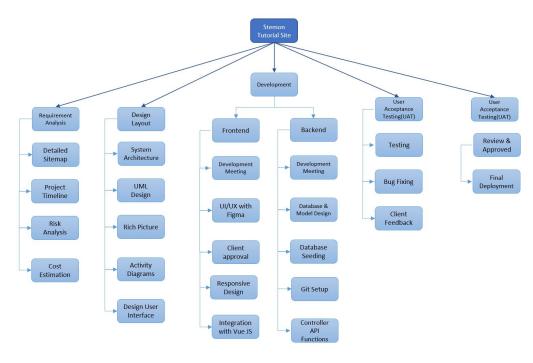
Khan Academy, Udemy, Coursera etc. are some of the digital platforms where students get the resources available online and can access to that information 24/7. Lectures, Notes and Videos are uploaded and given to the website which the student can access from anywhere in the world at any given time without the hassle of missing classes.

Chapter 3

Project Management & Financing

3.1 Work Breakdown Structure

Work breakdown structure (WBS) in project management is a method for completing a complex, multi-step project. It's a way to divide and conquer large projects to get things done faster and more efficiently. The goal of a WBS is to make a large project more manageable. Breaking it down into smaller chunks means work can be done simultaneously by different team members, leading to better team productivity and easier project management. For our project, we have produced a WBS so that our work is coordinated. WBS offers a visual of all the scopes, risks, points of communication, responsibilities, costs and guarantees that it does not skip essential deliverables. For brainstorming and collaboration, it is the ideal tool for the team. In our WBS, we have used the top-down approach. [1]



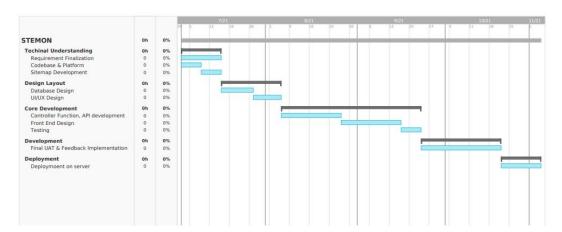
3.2 Process/Activity wise Time Distribution

For each section that I have mentioned in my Work Breakdown Structure, time was allocated so that the project completes on time. This table below shows the time allocation of the work.

Task	Days	Work Percentage(%)
Requirement Analysis	10	10
Design Layout	15	15
Development	35	40
User Acceptance testing (UAT)	20	20
Deployment	10	15
Total	90	100

3.3 Gantt Chart

We have used the Gantt Chart to plan and schedule all the activities that were needed to be done to complete the project successfully. [2]



3.4 Estimated Costing

The cost shown in the chart was allocated on the basis of the features the company demanded for the website. It depends on the size, requirements, functionalities and design of the website. The cost of developer and resources used were also taken into account. The approximate cost estimated was Tk.2,30,000.

Work Distribution	Cost
Domain & Hosting	30,000
Web development	100,000
Office Cost	100,000
Total	230,000

Chapter 4

Methodology

SDLC stands for software development lifecycle. A software development life cycle is essentially a series of steps, or phases, that provide a model for the development and lifecycle management of an application or piece of software. The methodology within the SDLC process can vary across industries and organizations, but standards such as ISO/IEC 12207 represent processes that establish a lifecycle for software, and provide a mode for the development, acquisition and configuration of software systems.

A systems / software development life cycle is composed of a number of clearly defined and distinct work phases which are used by systems engineers and systems developers to plan for, design, build, test, and deliver information systems. Like anything that is manufactured on an assembly line, an SDLC aims to produce high-quality systems that meet or exceed customer expectations, based on customer requirements, by delivering systems which move through each clearly defined phase, within scheduled time frames and cost estimates.

There are two different types of SDLC that can be used: waterfall and agile. The major difference between the two is that the waterfall process is more traditional and begins with a well-thought-out plan and defined set of requirements, whereas agile SDLC begins with less stringent guidelines and then makes adjustments as needed throughout the process.

Agile development is known for its ability to quickly translate an application that is in development to a full release at nearly any stage, making it well suited for applications that are updated frequently. Generally, there are six phases in the Software development life cycle model. [3]

They are stated below:

- 1. Requirement gathering and analysis: Business requirements are gathered in this phase. This phase is the main focus of the project managers and stakeholders. Meetings with managers, stakeholders and users are held in order to determine the requirements. After requirement gathering these requirements are analyzed for their validity and the possibility of incorporating the requirements in the system to be developed is also studied. Finally, a Requirement Specification document is created which serves the purpose of guidelines for the next phase of the model.
- 2. Design: In this phase the system and software design is prepared from the requirement specifications which were studied in the first phase. System Design helps in specifying hardware and system requirements and also helps in defining overall system architecture. The system design specifications serve as input for the next phase of the model. In this phase the testers come up with the Test strategy.
- **3.** Implementation/Coding: On receiving system design documents, the work is divided in modules/units and actual coding is started. Since, in this phase the code is produced so it is the main focus for the developer. This is the longest phase of the software development life cycle.
- 4. Testing: After the code is developed it is tested against the requirements to make sure that the product is actually solving the needs addressed and gathered during the requirements phase. During this phase all types of functional testing like unit testing, integration testing, system testing, acceptance testing is done as well as non-functional testing are also done.
- 5. Deployment: After successful testing the product is delivered / deployed to the customer for their use. As soon as the product is given to the customers, they will first do the beta testing. If any changes are required or if any bugs are caught, then they will report it to the engineering team. Once those changes are made or the bugs are fixed then the final deployment will happen.
- **6. Maintenance:** Once the customers start using the developed system then the actual problems come up and need to be solved from time to time. This process where the care is taken for the developed product is known as maintenance.

Chapter 5

Body of the Project

5.1 Work Description

BiMee is one of the pioneering companies in Bangladesh that has been working on digitalizing the education system and providing programming and robotics education to children. BiMee has been working with Venturas, which is a Japanese company and they have formed STEMON BD through a joint venture project. They have been working on encouraging children to learn about robotics and programming and prepare them for the upcoming technological boom. The main purpose of BiMee is to digitize the education process. BiMee also hopes to make the general education system more efficient through the introduction of advanced technological changes. In Stemon BD the MIT created SCRATCH program is used to educate children. The STEM curriculum is followed during this course. BiMee is also working on a software to help the general education system more efficiently and take it to a digital model. My job was to design the backend of the project with the help of different tools like PHP framework (Laravel) and MySQL and build the Frontend so that the two can be connected with the help of the senior employees.

5.2 System Analysis

5.2.1 Six Element Analysis

	Human	Non- Computing Hardware	Computing Hardware	Software	Database	Communication
Create Tutorials	Admin	Record Book/Offline Database	Computer	Web Browser	RDMS	WAN/LAN
View Tutorials	User	N/A	Computer	Web Browser	RDMS	Internet
Update Tutorials	Admin	Record Book/Offline Database	Computer	Web Browser	RDMS	WAN/LAN
Delete Tutorials	Admin	Record Book/Offline Database	Computer	Web Browser	RDMS	WAN/LAN
Submit Forms	User	N/A	Computer	Web Browser	RDMS	Internet
Manage Forms	Admin	Record Book/Offline Database	Computer	Web Browser	RDMS	WAN/LAN

5.2.2 Feasibility Analysis

A feasibility analysis analyzes a project's chances of success, perceived integrity is crucial to the study's credibility within potential lenders and investors. It evaluates whether the project is morally, theoretically, and financially feasible. It determines if the idea is ethically, intellectually, and financially feasible, as well as whether it is profitable to spend in. This project is based on the results of five feasibility studies: [4]

1. Technical Feasibility BiMee is trying to cover all of Bangladesh and provide technological education throughout the country. Their aim is to provide technological education and make the future generation of Bangladesh technologically advanced.

The goal of the organization is to provide quality education and use the advancement in technologies such as artificial intelligence (AI) and machine learning (ML) to provide the best to the students. BiMee has been working to spread their branch throughout the country and provide digital IT education to rural areas as well as urban areas. The company also aims to spread its branches outside of Bangladesh in future.

2. Economic Feasibility:

The cost and benefits of this website have been considered in this section. The website does not contain any hidden costs for users. They aim to provide digital education to the students as a service and anyone who wants to take subscriptions.

3. Feasibility:

Before moving forward with this project, all legal restrictions were considered, including data protection laws, social media restrictions, as well as zoning laws, to ensure that it would not encounter any legal issues in the future.

4. Operational Feasibility:

The global pandemic and economic crisis around the whole made schools, universities and workplace to close down due to the risk of COVID-19. Our project is very feasible as students and users can now learn right from their home without being at the risk of catching the virus. They can view, continue and access the tutorial site at any give time with their needs. Moreover, the project plan also satisfies all the requirements that have been identified to complete the project.

5. Scheduling Feasibility:

To make a project successful, it is very important to complete a project at the promised time. The Gantt chart has been shown to provide the scheduling of the project.

5.2.3 Problem Solution Analysis

There were a few issues that arose all throughout project's development, but they were all resolved successfully. The following were some of the issues:

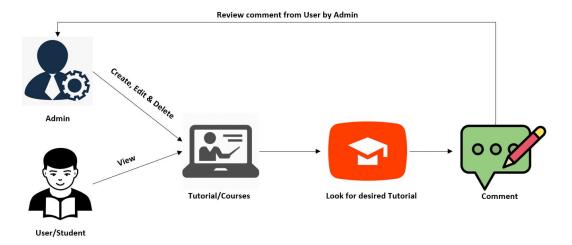
- Not being able to use Modal to the developing site We used Jetstream with Laravel
 which allowed us to use AlpineJS as well as Livewire as the frontend framework of
 the project where we were able to use Modal easily.
- Making the Site responsive- We used Tailwind CSS, a CSS Framework, which helped us making the whole site responsive easily by using CSS Classes.

5.2.4 Effect and Constraints Analysis

This Tutorial site helps the students to learn digitally online without the hassle of going to the schools. Even though its not a common practice in Bangladesh that the student does not go to the schools to learn physically, but they can learn everything online with the touch of a few buttons. We are trying to encourage more students to take this adaption and this culture is starting to grow because of the Global Pandemic and this will not only make student's life simpler, but it will also be a significant benefit during the pandemic.

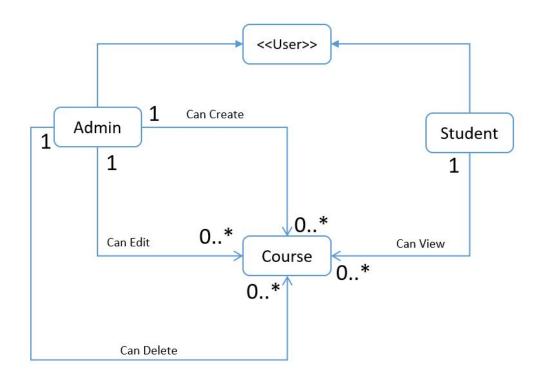
5.3 System Design

5.3.1 Rich Picture

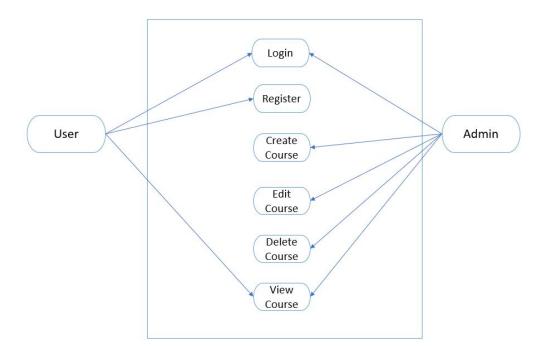


5.3.2 UML Diagrams

The Class diagram is an important UML diagram that shows the flow of one activity to another. The Class diagram of the user and admin help to visualize the flow of their activity in graphical form.



Use-case Diagram- The use case diagram represents the functional requirements of the system. It shows the actors, cases, communication links, system and relationship.



5.3.3 Functional and Non-Functional Requirements

Functional requirements

Function: Register									
Input:	Name,Email Address & Password	Process:	Go to the Register Page of the Website.	Output:	You have been Registered				
Precondition: Must Have an Unique Email ID									
Postco	Postcondition: Successfully has been registered as a User to the Website.								

Function: Login

Input: Email Address & Process: Go to the Login Page of the Website.

Precondition: Valid Email Address and Password.

Postcondition: Redirect to Homepage/Landing Page.

Function: Creating Tutorial

Input: Tutorial Name, Tutorial Details, Tutorial Content

Process: Admin should go to dashboard.

Output: Tutorial has been created.

Precondition: Only Admin can create the Tutorial. Cannot add duplicate Tutorial.

Postcondition: The Tutorial is now available for the students to view.

Function: Edit Tutorial

Input: Tutorial Name,
Tutorial Details,
Tutorial Content

Process: Admin should
go to
dashboard.

Output: Tutorial has been edited.

Precondition: Only Admin can edit the course.

Postcondition: The Tutorial has been edited.

Function: Delete Tutorial							
Input: Tutorial ID	Process:	Admin should go to dashboard.	Output:	Tutorial has been deleted.			
Precondition: Only Admin can delete the tutorial.							
Postcondition: The Tutorial has been deleted.							

Function: View Tutorial								
Input : Tutorial Name	Process:	User should go to tutorial page of the website and select the desired tutorial.	Output:	Tutorial video is shown.				
Precondition: The user must be registered.								
Postcondition: Tutorial content is shown to the user to view.								

Function: Creating Articles							
Input: Articles Name, Article Details, Article Content Process: Admin should go to the Dashboard. Output: Article has been created.							
Only Admin can create the Articles. Cannot add duplicate. Precondition:							
Postcondition: The Article is now available fore the student to view							

Function: Edit Articles								
Input: Article Name, Article Details, Article Content Process: Admin Should go to the Dashboard Output: Article has been edited.								
Precondition: Only Admin can edit the article.								
Postcondition: The Article has been edited.								

Function: Export Articles/Tutorials				
Input: Select Tutorials/ Articles.	Process: Admin should go to the admin panel of the website	Output:	Export to .CSV file	
Precondition: Admin car	n only export articles/Tutoria	ıls.		
Postcondition: The file is exported to .CSV				

Function: Export Article	s/Tutorials			
Input: Select Tutorials/ Articles.	Process: Admin should go to the admin panel of the website	Output:	Export to .CSV file	
Precondition: Admin can only export articles/Tutorials.				
Postcondition: The file	is exported to .CSV			

Function: View Articles				
Input: Article Name	Process:	User should go to the article page of the website.	Output:	Article is shown.
Precondition: The user must be registered to the website.				
Postcondition: Article content is shown to the user.				

Function: View Article	s			
Input: Article Name	Process: User should go to the article page of the website.	Output:	Article is shown.	
Precondition: The user r	must be registered to the wel	osite.		
Postcondition: Article content is shown to the user.				

Function: Search Comments					
Input: User ID, Name Email	Process: Admin should go to the admin panel of the website	Output:	Comment is shown.		
Precondition: Admin can only search comments made by the user.					
Postcondition: The result of the search result is shown.					

Function: Search Comments					
Input: User ID, Name Email	Process: Admin should go to the admin panel of the website	Output: Comment is shown.			
Precondition: Admin can only search comments made by the user.					
Postcondition: The result of the search result is shown.					

Function: View Author			
Input: Author Name	Process: Admin should go to the admin panel of the website	Output:	Author is shown.
Precondition: Admin ca	an only create author.		
Postcondition:			

Functio	on: Search Articles	s/Tutorials			
Input:	Tutorial ID, Tutorial Name/ Article ID, Article Name	Process:	Admin should go to the admin panel of the website	Output:	Search results is shown.
Precon	dition: Admin car	only searc	h articles/Tutoria	ls.	
Postco	ndition: Search r	esult is disp	olayed.		

Non-functional requirements Non-functional requirements are briefly described of the project are listed and described below:

Performance: represents the performance of the system which is required to exhibit and to meet the needs of users. Performance describes the acceptable throughout rate and acceptable response time which should be the lowest. This application should provide a smooth experience for the user.

Usability Requirements: The website is very user friendly with a very easy navigation system. This was done keeping in mind the main motive of the website, that anyone with the minimum computer knowledge should be able to access it. No extra guide is needed to use this website.

Security Requirements: Security and administrations are always a concern for any system. All information on the server-side and client-side is secured. Only the admin has permission to make any changes to the website.

Availability Requirements: We will try to ensure that the website is 99.99percent of the times available so that a user can visit the website at any time they want.

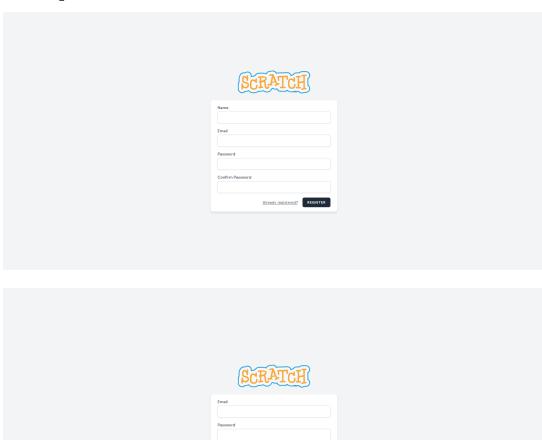
Maintainability Requirement: The website can be modified easily without making any changes to the existing system. If any error occurs, it can be fixed immediately.

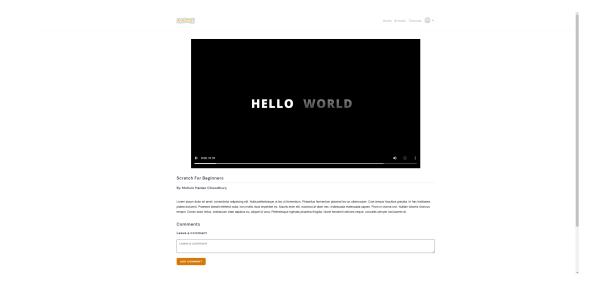
Efficiency: represents the system's ability to produce outputs with minimal waste. We have tried to eliminate duplicate steps in the processes and to use the resources in an efficient way. Keeping our code non-repetitive by using reusable code and components is how we achieved efficiency.

5.4 Product Features

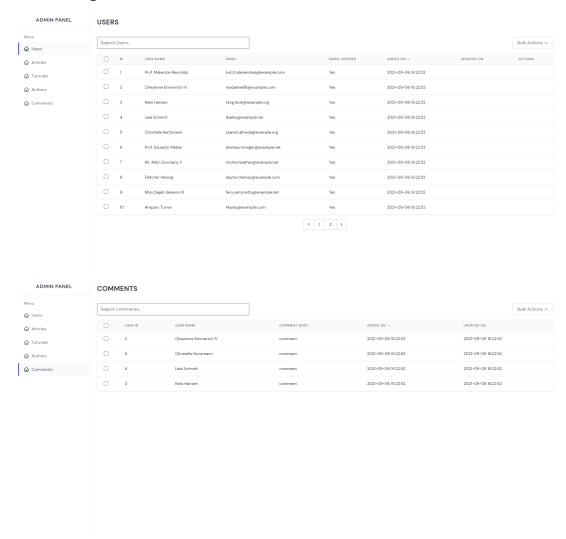
Here I have included all the input and output features a user can access from the Tutorial Site.

5.4.1 Input





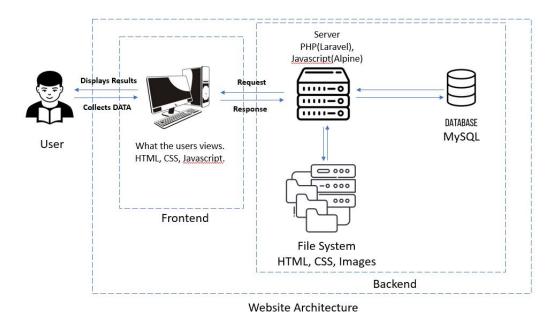
5.4.2 Output



Here, I have included the login page, register page, video tutorial comment page as the input. I have shown the Users table from the Admin Panel where the Admin can see the register users and their comment posted in the video tutorials or the articles.

5.4.3 Architecture

To develop this project, we have used Laravel Livewhere which is a Fullstack framework for Laravel. We used Livewire because it provides the functionality of Javascript Frameworks like ReactJS and VueJS but still uses Blade Templates for the frontend. A MVC-like pattern has been used because Laravel is a MVC Framework. The model contains a function which is used to insert, retrieve and update information from the database. The view contains the data that is presented to the user. The controller is used to connect model and view to process HTTP access and this generates a web page. Controller receives all the requests and passes it to the model and view. When a user visits the website it views information.



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Chapter 6

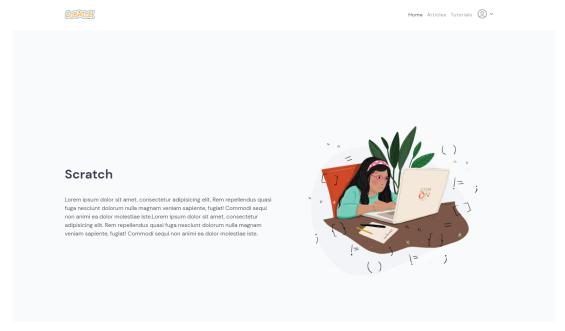
Results & Analysis

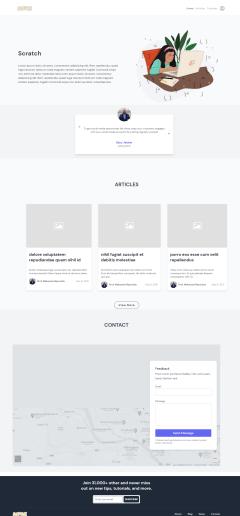
The goal of the organization is to provide quality education and use the advancement in technologies such as artificial intelligence (AI) and machine learning (ML) to provide the best to the students. BiMee has been working to spread their branch throughout the country and provide digital IT education to rural areas as well as urban areas. The company also aims to spread its branches outside of Bangladesh in future. BiMee is trying to cover all of Bangladesh and provide technological education throughout Bangladesh. Their aim is to provide technological education and make the future generation of Bangladesh technologically advanced.

The client wanted a site where he could share knowledge about SCRATCH by sharing articles and video tutorials. He also wanted an easy to use Admin panel from he could post these videos and article and interact with the students. The website still is under construction and the images that shows the features of the website are subject to change.

• Homepage

Homepage- This is the View of the full homepage and the full size picture of it that all users will see to upon opening the website.

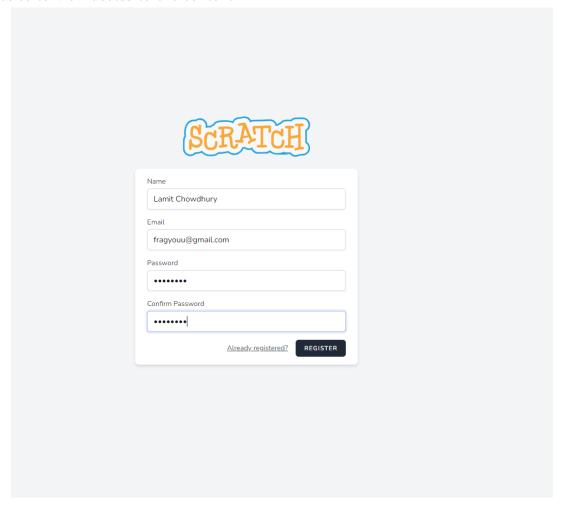




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• Register Page

Register Page- This is the register page where students are required to register to the website to view access to the content.



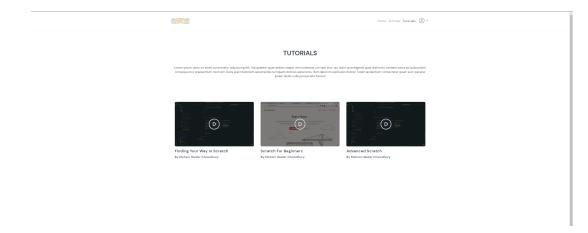
• Login Page

Login Page- This is the login page where students are required to log into the website to view access to the content.



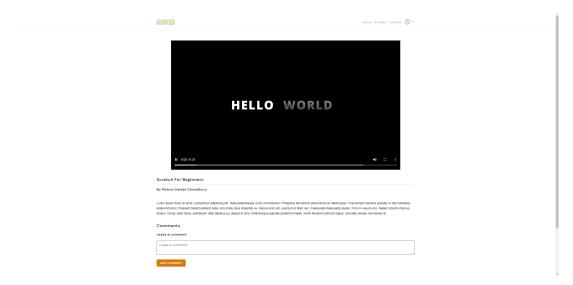
• All Tutorial Page

Tutorial Page: Here, the students can view all the tutorials posted by the admin and view each in detail.



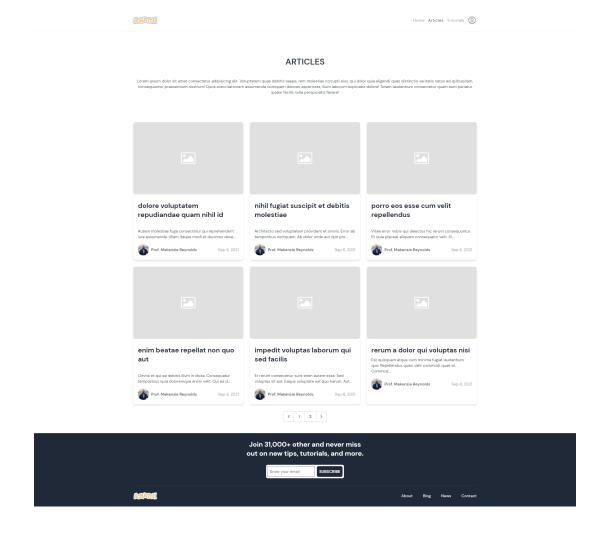
• Single Tutorial Page

Tutorial Page: Here, the students can view the tutorial of their desired posted by the admin and view each in detail and leave a comment or question about it.



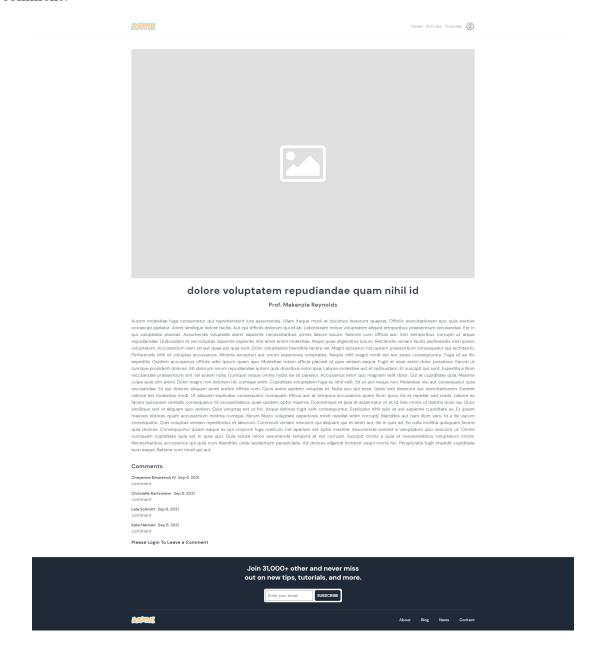
• All Articles Page

Article Page: Here, the students can view all the articles posted by the admin and view each in detail.



• Single Articles Page

Single Articles Page: Here, the students can view their selected articles in detail and comment.



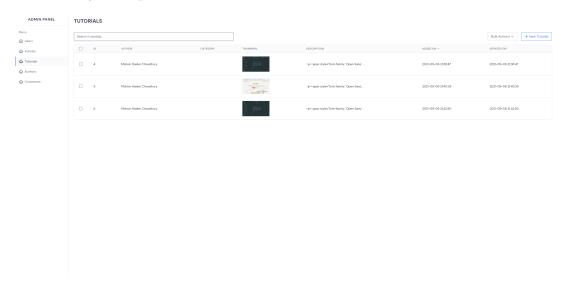
• Admin Add Article Page.

Add Article Page: Here Admin or moderators can add articles to the website.



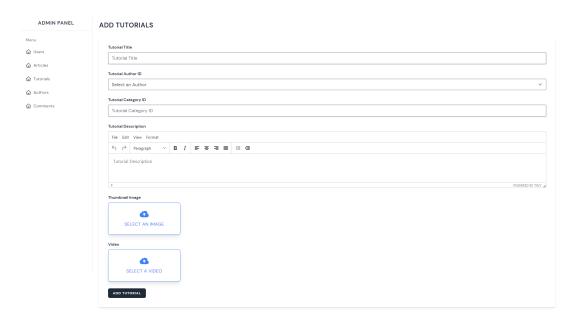
• Admin View All Tutorial

View All Tutorial: On this page, the admin or moderator can view all the video tutorials that has already been posted to the website.



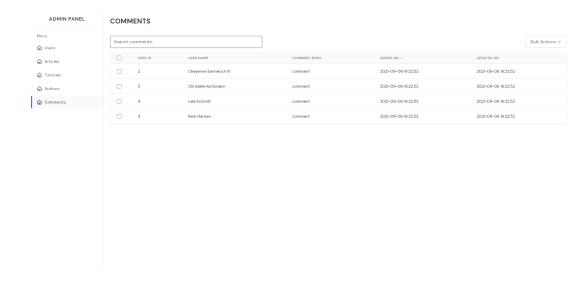
• Admin Add Tutorial Page

Add Tutorial Page: The admin or moderator can add video tutorial to the website where the users/student can view and comment.



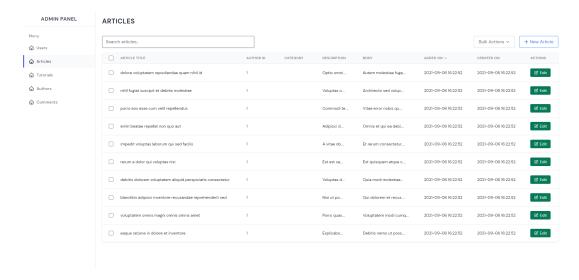
• Admin View Comment

View Comment: The admin can view all the comments posted by the user.



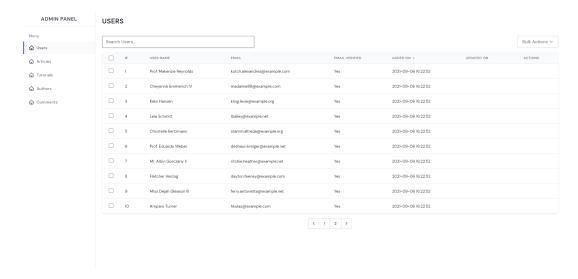
• Admin All Article Page

All Article Page: The admin can view all the articles currently posted in the website.



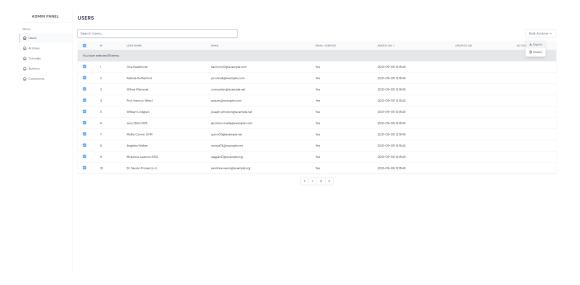
• Admin panel of User

Admin panel of User: Here the admin can view the number of students registered to the website and their information.

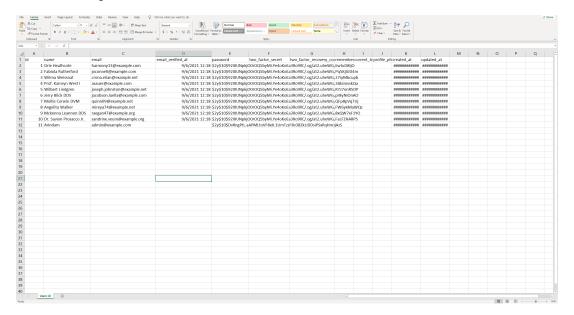


$\bullet\,$ Admin Export file

Export file: Here the admin can export single of bulk file and represent in a CSV.

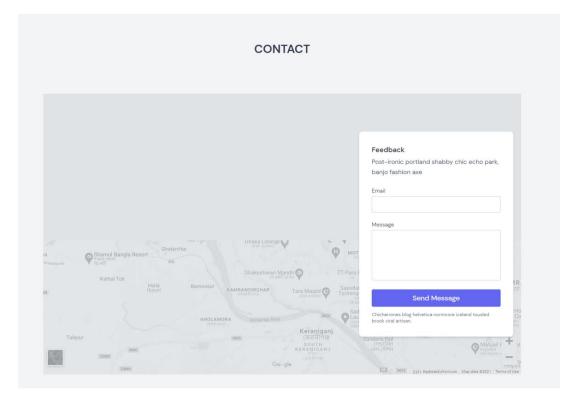


Shows the exported file in excel format.



• Contact Page

Contact- This is the Contact page where users or visitors contact to the company about all the necessary information .



Chapter 7

Project as Engineering Problem Analysis

7.1 Sustainability of the Project/Work

The sustainability of the product refers to its ability to be maintained and updated. In the modern world, every application or website being released needs to be maintained and continuously updated for its user base. By implementing these little but substantial improvements, the website has become more sustainable. Image optimization to minimize file size: to reduce load time, the maximum number of pictures per section has been maintained constant. The image's size and resolution have changed. Also been taken into account so that load time and energy are not being wasted. Easy navigation system-We have kept the navigation system as simple as possible so that users get the maximum ease while surfing through the website.

7.2 Social and Environmental Effects and Analysis

Social effect-The major objective of the website was to bring all of the company's tutorials and articles together on the website, so that students could receive all of the information they needed about the course or the subject they are interested to take part in.

Environmental effect- The website boomed during the global pandemic as it's not safe to go to the physical classrooms and schools. Students are more active and engaged with the online learning and it has increased their creativities because they can have easy access to thousands of information online and made life simpler.

7.3 Addressing Ethics and Ethical Issues

In the world of smartphones with so much data collection, hacking, cyber-crime, etc. There are some unspoken rules and ethics guidelines that need to be followed when working on creating and releasing an website. The developers made sure there was no breach of conduct and all the points were taken into serious consideration. Some of them are as follows:

- Data Storage: All the data are store in the cloud. So there is a less risk of data loss due to system failure or disaster.
- Data Security: Data in the cloud are secured rather than the data's in on premises. There is a less chance to get hacked. A master account is provided to the company to manage other account and give access to the server.
- Data Storage Security: Only the lead developer has access to the backend server and database. Since they are hosted in the cloud and can only be accessed via the lead developer's login credentials; the data stored can be deemed safe and secure.

Chapter 8

Lesson Learned

8.1 Problems Faced During this Period

Working in BiMee was a great experience for me. I could not have asked for a better first internship experience and this is all because the people in this company were so friendly and open to teaching us interns about work etiquettes. Due to the fact that the people surrounding me were so friendly, working as a team in projects was very enjoyable.

In IT, I worked with a team of 3, with one Senior developer, leading me and another intern. We were assigned tasks in trello and given deadlines. We had to finish the jobs by the deadlines and if we had any queries, we would ask them on slack. I was provided with feedback from my supervisor and this will help me in my future career.

8.2 Solution of those Problems

My expectations from this internship were limited as I had no previous experience in working in a professional work space. Here are my expectations on what I wanted to learn as an intern:

- Adapting myself for working in a team with other developers.
- To understand how tasks are assigned to a single developer and how to meet deadlines.
- To implement my skills which were gained over the years in IUB in real life situations
- Communication with co-workers.
- Building up my work etiquettes such as punctuality and time management.

Chapter 9

Future Work & Conclusion

9.1 Future Works

The project is still in its early stages, the firm intends to add a number of new features to the website in order to make it more useful to users and more pleasing to the eye. More backend developers, in my view, may be employed for the project to provide some more depth. Live consultation sessions, for example, are built-in elements that give the website a more personalized feel.

9.2 Conclusion

During the first month of my internship, I worked on a wordpress site from requirement analysis to deployment, and later maintenance. I was not familiar with wordpress before this project but with the help of my colleagues and the help of the documentation I quickly grasped the fundamentals of wordpress. I also had to implement a payment gateway using SSLCommerz on this site. So I had to learn about SSL to implement this system. In the second month of my internship, I was tasked with the development of a blog/tutorial site. This project was developed using the PHP framework, Laravel and the Javascript library Vue.js.

Previously, during my time at IUB, I worked in a number of projects, so the development process in this project was quite similar. During the development of the application I learnt about Vue.js and this will help in my future career. In the last month of the internship, I faced a lot of problems when implementing the bKash api into the wordpress site we developed during the first month. Implementing this api proved to be a tedious task ultimately we overcame this. I also implemented a youtube api into the blog/tutorial site.

These projects helped me a lot to understand how to work as a team and how to implement my knowledge gained in the last few years in IUB and implement them in real-life situations. The problems I faced and the solutions to them helped me understand that all problems can be solved if you try hard enough.

My time at BiMee was one that I would cherish for the rest of my career. This is because during this time I learnt how a company and its employees work. I learnt how people work as a team in IT companies. One of the most amazing things that I learnt in BiMee was teamwork. At the industries, it is important to function as a unit and respect the teammate's ideas and suggestions. Team discussions were like brainstorming sessions that helped me identify and solve numerous problems and issues that would have been impossible to solve otherwise.

During my tenure at BiMee, I never felt that it was an office space and I always felt at home. My superior team members were very helpful and encouraging towards me in case of learning and problem solving. Even though this was a work from home internship, I felt like I knew the people in the office for a long time. Starting from the first day, they gave a warm welcome to us interns. My supervisor, influenced us to go beyond and push our limits and not give up and get stuck in a problem.

Overall, this internship was a great experience which I will cherish and remember for the rest of my career. I met new people who I will hopefully be in contact with for a long time. I learnt new languages and technologies and polished my previous skills during my time in BiMee. But even more importantly, I gained skills essential to working in corporate workspaces. I am grateful to my institute, Independent University, Bangladesh for providing me quality education and knowledge as well as this opportunity to complete my internship in BiMee. [5, 6]

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