Software Developer

 \mathbf{BY}

Md. Najmul Hasan ID: 183-35-2581

This Report Presented in Partial Fulfillment of the Requirements for the Degree of Bachelor of Software Engineering

Supervised By

Name: Ms. Nusrat Jahan
Designation: Assistant Professor
Department of Software Engineer
Daffodil International University



DAFFODIL INTERNATIONAL UNIVERSITY DHAKA, BANGLADESH NOVEMBER 2022

APPROVAL

This thesis titled on "**Software Developer**", submitted by **Md. Najmul Hasan ID: 183-35-2581** to the Department of Software Engineering, Daffodil International University has been accepted as satisfactory for the partial fulfillment of the requirements for the degree of Bachelor of Science in Software Engineering and approval as to its style and contents.

BOARD OF EXAMINERS

5	
Dr. Imran Mahmud Head and Associate Professor Department of Software Engineering Faculty of Science and Information TechnologyDaffodil International University	Chairman
Kaushik Sarker Associate Professor Department of Software Engineering Faculty of Science and Information TechnologyDaffodil International University	Internal Examiner 1
Dr. Md. Fazla Elahe Associate Professor Department of Software Engineering Faculty of Science and Information TechnologyDaffodil International University	Internal Examiner 2
Mohammad Abu Yousuf, PhD.Professor Institute of Information TechnologyJahangirnagar	External Examiner

University

DECLARATION

We hereby declare that, this project has been done by us under the supervision of Ms. Nusrat

Jahan, Assistant Professor, Department of Software Engineer Daffodil International

University. We also declare that neither this project nor any part of this project has been submitted

ii

elsewhere for award of any degree or diploma.

Supervised by:

Name: Ms. Nusrat Jahan

Designation: Assistant Professor Department of Software Engineer Daffodil International University

Submitted by:

Md. Najmul Hasan

ID: 183-35-2581

Department of Software Engineer Daffodil International University

ACKNOWLEDGEMENT

First, we express our heartiest thanks and gratefulness to almighty God for His divine blessing makes us possible to complete the final year project/internship successfully.

We really grateful and wish our profound our indebtedness to **Ms. Nusrat Jahan, Assistant Professor,** Department of Software Engineer Daffodil International University, Dhaka. Deep Knowledge & keen interest of our supervisor in the field of "intern" to carry out this project. Her endless patience ,scholarly guidance ,continual encouragement , constant and energetic supervision, constructive criticism , valuable advice ,reading many inferior draft and correcting them at all stage have made it possible to complete this intern.

We would like to express our heartiest gratitude to Dr. Imran Mahmud, Associate Professor & Head in-Charge, Department of SE, for his kind help to finish our internee and also to other faculty member and the staff of SE department of Daffodil International University.

We would like to thank our entire course mate in Daffodil International University, who took part in this discuss while completing the course work.

Finally, we must acknowledge with due respect the constant support and patients of our parents.





Ref: OL01Mar

24.03.2022

Md. Najmul Hasan 40/A, Shekhertek 7 Adabor. Dhaka-1207

Sub: Internship Offer

Dear Md. Najmul Hasan,

On behalf of **SoroBindu**, I am excited to extend an offer to you for an internship position within our **Software Engineering Team**. This position is **Remote (Online)** and attached to our **Dhaka Branch Office**, Agargaon, Dhaka. The position is for a **Software Developer (Intern)**.

This position is scheduled to begin **01.04.2022** and will be a **four-months** paid internship opportunity ending on **31.07.2022**. The schedule for this position is **Sat-Thu from 10 AM to 6 PM**. You are not entitled to enjoy any leave other than office holidays during the internship period. This position will pay **8,000 BDT monthly** with no other benefits. In this role, you will report directly to the **CTO**, located at our Dhaka Branch Office. Please be sure to bring your **NID** with you on your first day to complete your profile.

During your temporary employment with **SoroBindu**, you may have access to trade secrets and confidential or proprietary business information belonging to SoroBindu. By accepting this offer, you have to sign a **Non-Disclosure Agreement** to start your position. Also, you agree that upon completion of your internship, you will promptly return any company-issued property and equipment along with information and documents belonging to the company. By accepting this offer, you acknowledge that you understand participation in this program is not an offer of employment, and

SS Dwelling (Lift 5), Suihari Kacha Bazar, Dinajpur Sadar, Dinajpur Cell: 0188 99 72 995, 0188 99 72 999, E-mail: contact@sorobindu.com





successful completion of the program does not entitle you to an employment offer from SoroBindu.

This offer letter represents the full extent of the internship offer and supersedes any prior conversations about the position. Changes to this agreement may only be made in writing. If you have any questions about this offer, please contact me. Please review this letter in full, and sign and return it via email to ridam@sorobindu.com to confirm your acceptance of the position no later than close of business on 27.03.2022. We look forward to having you begin your career at SoroBindu and wish you a successful internship.

Sincerely,

Ridam Paul

Chief Of Staff

SoroBindu

ridam@sorobindu.com

01750-65-13-43

I, Md. Najmul Hasan, accept the above offer and will begin the internship position on 01.04.2022.

[Signature Above]

Md. Najmul Hasan

Date:

SS Dwelling (Lift 5), Suihari Kacha Bazar, Dinajpur Sadar, Dinajpur Cell: 0188 99 72 995, 0188 99 72 999, E-mail: contact@sorobindu.com

TABLE OF CONTENTS

Appendix A		
APP	PROVAL	i
	CLARATION	ii
	KNOWLEDGEMENT	iii
	FER LETTER	iv
	FER LETTER	V
CH	APTER 1: INTRODUCTION	1
1.1	Background	1
1.2	Objectives	1
	Scope	1
	APTER 2: COMPANY OVERVIEW	2
2.1	About	2
	2.1.1 Vision and Mission	2
	2.1.2 Location	3
	2.1.3 Management	3
CH	APTER 3: COMPANY CULTURE AND CARRYING OUT	3
3.1	Department/Section Overview	3
3.2	Working Team (name of your working team)	3
3.3	Working Environments & Protocols	4
	3.3.1 Rules & Regulations	4
	3.3.2 Facilities	4
3.4	Internee Life Cycle	4
	3.4.1 Getting Started	4
CH	APTER 4: TECHNOLOGY EMPLOYING	5
4.1	Technologies in use	5
CH	APTER 5: PROJECT EXERTION	5
5.2	Project Name / soroBindu	5
	5.2.1 Project Plot & Requirements	6
	5.2.2 Solution Providing	15
	5.2.3 Challenges	16
	5.2.4 Technical Findings	16
	5.2.5 Completion & Delivery	16
CH	APTER 6: EXPERIENCE AND ACHIEVEMENTS	17
6.1	Overcome Problems and Difficulties	17
6.2	Working Practices	18
6.3	Achievement	17
CH	APTER 7: CONCLUSIONS AND RECOMMENDATIONS	17
7.1	Findings and Contributions	18
REF	FERENCES	19

CHAPTER 1: INTRODUCTION

1.1 BACKGROUND

Companies like soroBindu have emerged making education more efficient in our country where soroBindu is an online education institute. Where students are offered various learning opportunities such as JavaScript, WordPress, PHP-Laravel and many more.

(https://app.sorobindu.com) is a Learning Management System. Where they can manage and track a variety of activities for students.

1.2 OBJECTIVES

I'm encouraged to do it because it's interesting. I have learned about many new things and applied them to this internship. The biggest motivation to work with so many components This is the first time I'm working with an organization.

1.3 SCOPE

The primary goal of this internship report is to meet the criteria of the undergraduate BSc program while also presenting the knowledge and information gained during the internship period with the company. During this internship period here, I learn about the responsibility as an employee how to be professional with the work within the time limit and provide the output in time.

Also, how to handle yourself during work pressure and give your best in that situation and handle the task as a professional manner. It also teach me during problem solving in work sometime you have to think Out of the box to solve the problem. It also inspired me to learn about the development more and more. Because it brings new challenge every time. The problem isn't same so I have to think different to solve every problem. It brings me more passionate about web development when I feel challenge in this work.

COMPANY OVERVIEW

2.1 ABOUT

2.2.1 Mission & vision

With the development of technology, the demand for various skills related to technology is increasing in the country and abroad. And by mastering that skill, the soroBindu dream is to take our youth forward; Through which our relentless pursuit and hard work.

As per our plan, every year we will start numerous new courses including freelancing in different skills, where every student will be skilled in technical education through hands-on learning. There is also unlimited support.

Apart from this, there is a great English Course for communication in the global marketplace, to shake off your worries about English.

No more worries about succeeding in the marketplace. soroBindu now regularly gets lots of information, articles, and tricks on the technical education marketplace.

With this ocean-like potential left behind in the online age, nobody has time to sit still. But those wonderful ways are still unknown to many young people.

This outstanding initiative of soroBindu is thinking about the thousands of dreamers of our country. soroBindu main goal is to make the youth of Bangladesh rich and skilled in the IT sector.

OUR FUTURE PLAN: Our software will demand immense appreciation in technical education. Besides, by 2025- the IT sector will have the highest impact on soroBindu.

We will further aim to develop the unemployed and youth population of the country into skilled manpower, pride, and strength, who will be able to stand on their own feet with a smile and dignity.

2.2.2 Location

soroBindu head office in Chowrangi KachaBazar, Suihari, Dinajpur Sadar and their new branch Dhaka Mohammadpur Society 3.

2.2.3 Management

Different employees work in different categories in soroBindu company. Teachers, HR, and company CEO work in their head office. And on the other hand, I am an intern here working as a developer at New Branch. Where Team Leader given the facility to work remotely and, in the office. I mean hybrid office.

COMPANY CULTURE AND CARRYING OUT

3.1 DEPARTMENT/SECTION OVERVIEW

I did my internship in development department. My supervisor is the team leader and senior full stake developer of the department. Also, there are different posts of officers in different departments. Here everyone's work is determined. All the work of the sub branch has to be submitted in the form of report to the head office at the end of every month.

3.2 WORKING TEAM

I have two developers in my team. Me and my team leader. I complete the project under the guidance of the team leader. In case of any difficulties, the team leader provides documents or video resources. If the problem does not resolve itself, the team leader determines the solution.

3.3 WORKING ENVIRONMENTS & PROTOCOLS

3.3.1 Rules & Regulation

soroBindu is an online EdTech platform and these are the terms and conditions:

- ❖ The office needs hybrid work.
- ❖ In the case of the intern, the worker must have his own computer.
- ❖ Ta. Da. will be given beside your salary.
- ❖ They have fixed working hours. They have to enter and exit through card scanner.
- ❖ Making true & correct entries in time record.
- ❖ The employees are highly integrated with the basic activities of the corporation.
- ❖ There is specific training for the employees of every department & they had to attend it
- Employees of my office can't take early leave except for a good reason. They have to take permission from manager or supervisor to leave early or for a leave.

3.3.2 Facilities

Company have various kind of facilities for their employees like –

- ❖ While intern there was the facility to work in an office and at home.
- Provides evening snacks and sometimes extra facilities of food. For the intern food, and facilities are accessible.
- ❖ Have two holidays in a month.
- ❖ Female workers can have holidays during their pregnancy time.
- ❖ Any employee can take leave showing logical reasons.
- * They have internship opportunities for students.
- ❖ The company provides a personal computer for every employee.

3.4 INTERNEE LIFE CYCLE

3.4.1 Getting Started

I started my internship on April 1, 2022. My department's HR assigned me to the IT department and setup communication with my team leader. Told me to the company information to me and taught me about company rules, company policies and my work for the company. Gradually and many more.

TECHNOLOGY EMPLOYING

4.1 TECHNOLOGIES IN USE

As a web developer, I have to work with many technologies. Many technologies include JavaScript, HTML-CSS, bootstrap at the front end and laravel, and jQuery - ajax at the backend. Some experience working on servers and c-panel.

PROJECT EXTERTION

5 PROJECT NAME: (HTTPS://APP.SOROBINDU.COM)

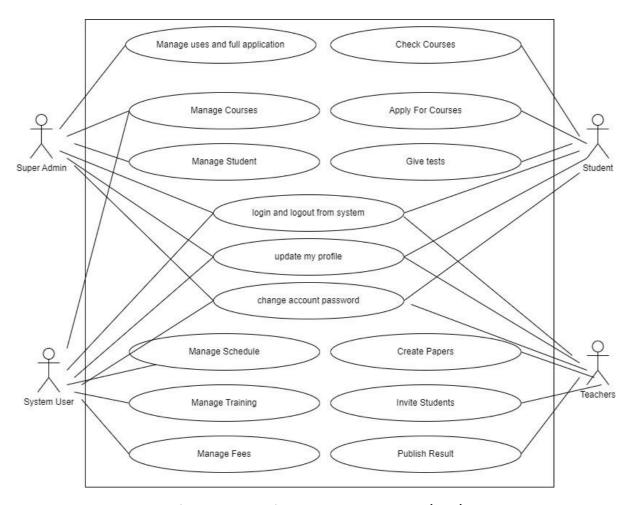


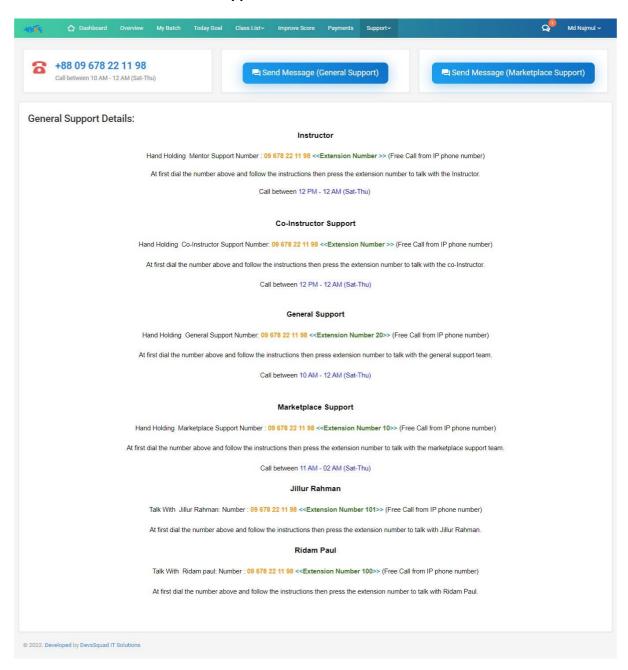
Figure 5.1: Learning Management System (LMS)

5.2.1 Project plot & requirements

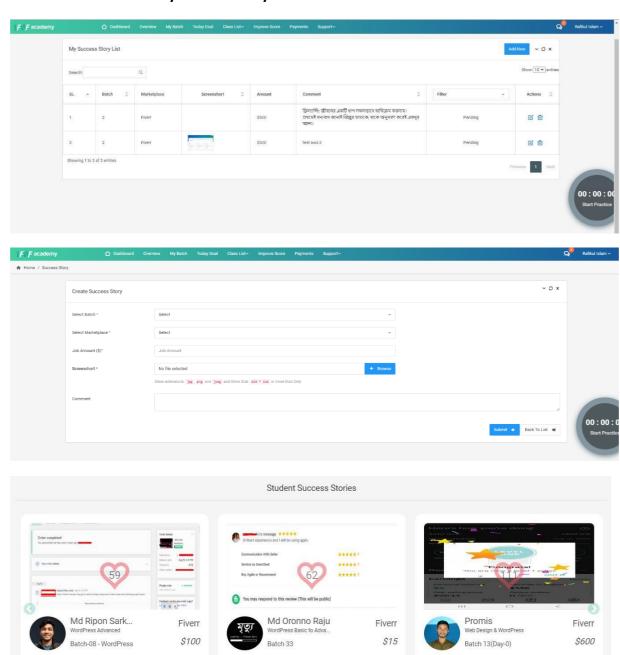
Sorobindu is an online Learning Management System (LMS). The purpose of sorobindu, Physical IT training has many limitations like as particular areas people can attend, and class time schedule can't match for service holder people and more. For this kind of limitation, they can't start their dream like

freelancing. By thinking these limitation sorobindu decide to make a virtual IT Training center named sorobindu. But virtual student management is so difficult and student also can't hold their motivation too. That's why they decide to make an online Student Tracing Software. Here they trace all their student by making course batch. And student also hold their motivation by doing their daily task like – assignment, quiz, class attendance, video watch time and class performance quick quiz also. By doing these all work they get individual mark for individual task and they get a progress score by calculating their task's gained mark. And they also see which is the running progress position of his own.

❖ General Support:

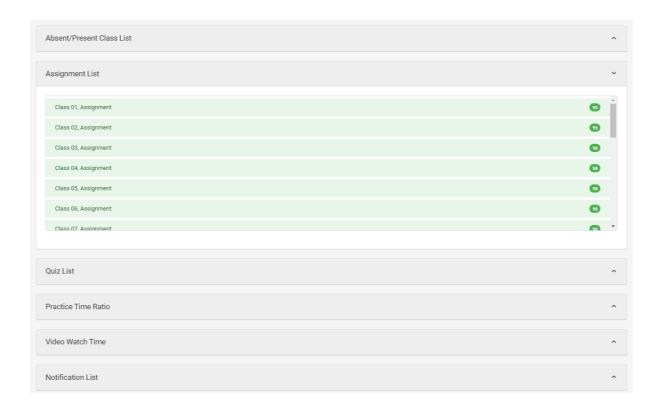


My Success Story:

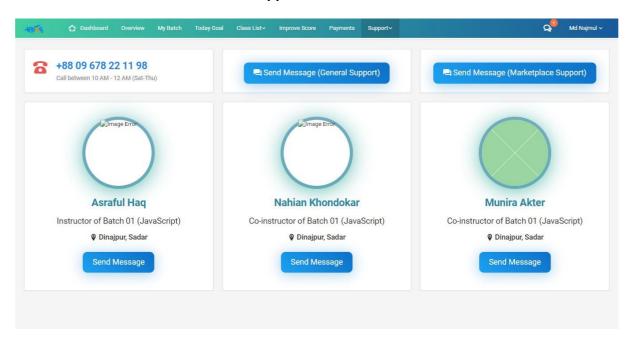


" After Marketplace First Order "

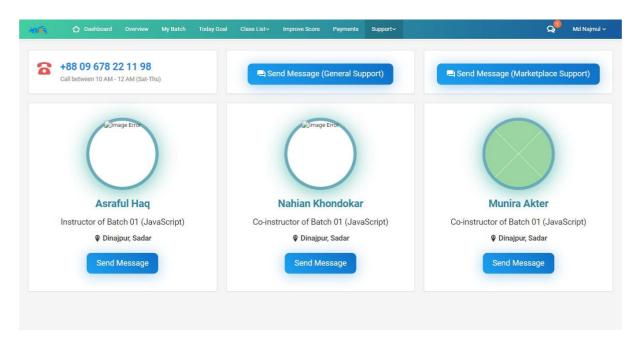
" alhamdulillah for everything "



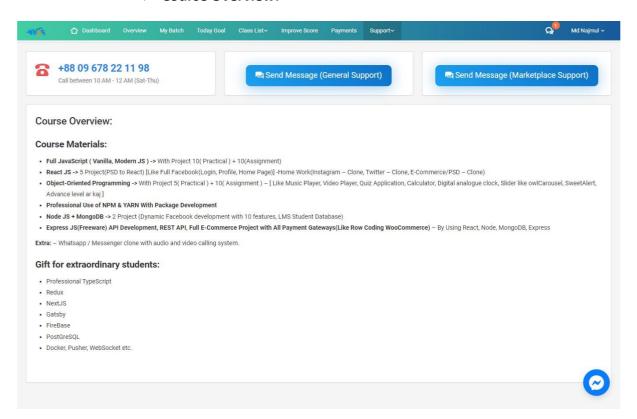
Co-instructor Support:



Course Instructions:



Course Overview:



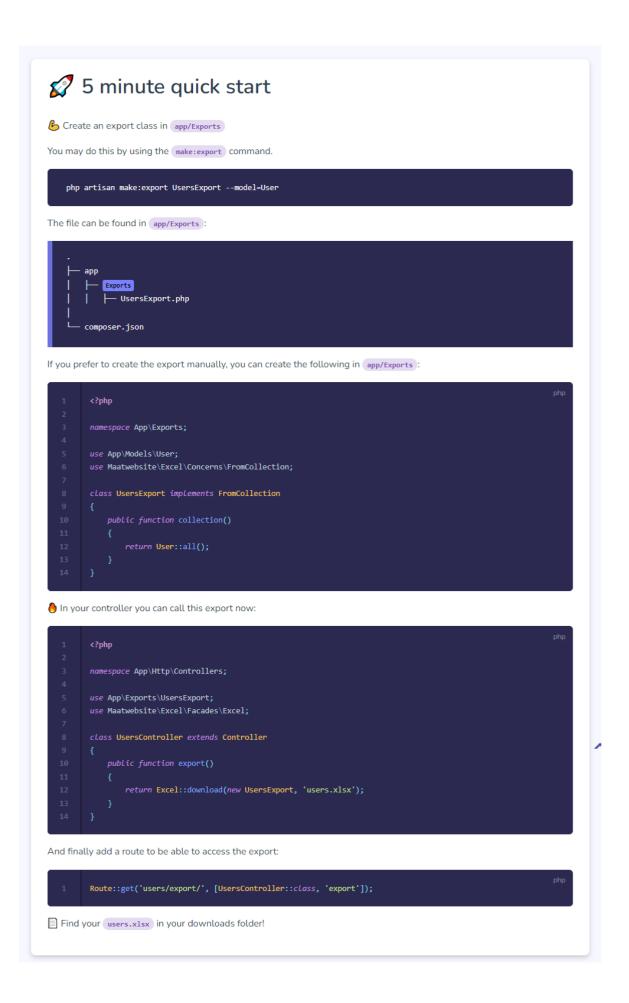
❖ Global Data Submit

Helper function helps us to create a function that can be called anywhere in our app. That is a global function that can be called both in the views and also in the controller.

Laravel and PHP also provide some basic functions that can be called anywhere, however, there are some times we might need to write our own custom functions that we will need both in the controller and in the views or other parts of our app.

***** Export-Import CSV Files

Laravel Excel is intended at being Laravel-flavored PhpSpreadsheet: a simple, but elegant wrapper around PhpSpreadsheet with the goal of simplifying exports and imports.



```
5 minute quick start
6 Create an import class in app/Imports
You may do this by using the <code>make:import</code> command.
    php artisan make:import UsersImport --model=User
The file can be found in app/Imports :
         Imports
            ├─ UsersImport.php
       composer.json
If you prefer to create the import manually, you can create the following in <code>app/Imports</code>:
         namespace App\Imports;
         use App\Models\User;
         use Illuminate\Support\Facades\Hash;
         use Maatwebsite\Excel\Concerns\ToModel;
         class UsersImport implements ToModel
            public function model(array $row)
                  'name' => $row[0],
'email' => $row[1],
'password' => Hash::make($row[2]),
In your controller you can call this import now:
         use App\Imports\UsersImport;
         use Maatwebsite\Excel\Facades\Excel;
         use App\Http\Controllers\Controller;
         class UsersController extends Controller
                Excel::import(new UsersImport, 'users.xlsx');
                 return redirect('/')->with('success', 'All good!');
Find the imported users in your database!
```

Proper Validation (front and back both)

While front-end code handles client-side input validation, back-end code handles serverside input validations

- Some Packages
- Template Mastering

Blade is a simple, yet powerful templating engine provided with Laravel. Unlike controller layouts, Blade is driven by template inheritance and sections. All Blade templates should use the .blade.php extension.

- Follow MVC Pattern
- Massage with Toastr
- Pagination
- Server Side Data Load

Data Tables is a plug-in for the jQuery JavaScript library. It is a highly flexible tool, based upon the foundations of progressive enhancement, and will add advanced interaction controls to any HTML table.

ORM Query Builder

Laravel's database query builder provides a convenient, fluent interface to creating and running database queries. It can be used to perform most database operations in your application and works perfectly with all of Laravel's supported database systems.

The Laravel query builder uses PDO parameter binding to protect your application against SQL injection attacks. There is no need to clean or sanitize strings passed to the query builder as query bindings.



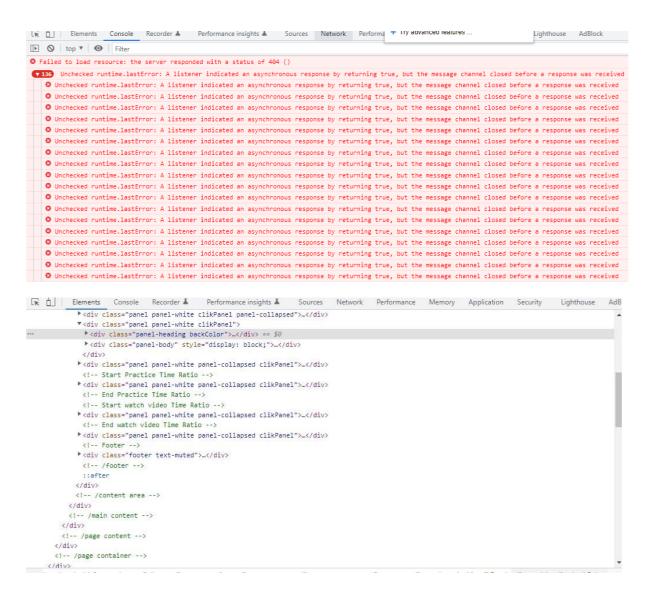
PDO does not support binding column names. Therefore, you should never allow user input to dictate the column names referenced by your queries, including "order by" columns.

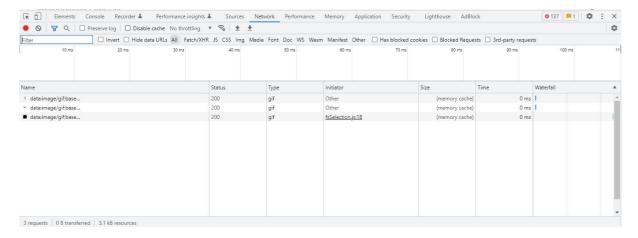
Use Seeder / Factory and many more

5.2.2 Solution Providing

It's normal to run into problems while writing code. Most of the error was very difficult to debug. This time I got the help of the team leader. The team leader would guide with documents or video resources, if the problem was not solved alone, I would solve the problem under the guidance of the team leader.

Most of the time we debug in browser and open inspect if the error is JavaScript then we go to console and if the error is laravel related then we go to network section to solve the problem from backend. Here Some Screen Shots:





5.2.3 Challenges

Many challenges have to be faced while being an intern. While working on such a big project, I had to spend a lot of time to understand the company code structure. Many new technologies have to be understood. Faced some problems while working which took hours to solve.

5.2.4 Technical Findings

Pentest recommends that Report URI engage with each of the findings raised in this section. Each is presented with the following details:

Descriptive vulnerability title – The industry standard word is frequently used.

Background information – which briefly outlines the finding and is designed for an audience who have not encountered it before

5.2.5 Completion & Delivery

Tasks are assigned to each task. There is a time limit attached to it. Daily work report must be submitted. All work is reviewed to ensure it is on time. GitHub is used for this. During the work is given in the progress section and when the work is completed is given in the review section. The team leader reviews and marge to the master branch

EXPERIENCE AND ACHIEVEMENTS

6.1 OVERCOME PROBLEMS AND DIFFICULTIES

There are many problems and difficult situations encountered while writing the code, in the beginning, creating a complete project. Having no experience working in any organization and doing such a big project in an internship faced various situations and problems and difficulties. I successfully tried to overcome all these problems under the guidance of the team leader. Sometimes the team leader would provide videos or documents to solve problems, which had to be solved manually. During this time, I had to do a lot of fiddling, hours passed and finally, some solutions and unresolved issues were resolved under the guidance of the team leader.

6.2 WORKING PRACTICESA

My working hours are from 10 am to 6 pm. Lunch break is 45 minutes and 15 minutes for prayer. There is also an option to do overtime for which some additional remuneration will be paid at the end of the month.

6.3 ACHIVMENT

My skills have improved a lot during the internship which is a big achievement for me. Because of these skills, I can determine my future. This achievement of mine is my walking companion. Because of this achievement, I can consider myself a successful web developer.

CONCLUSIONS AND RECOMMENDATIONS

7.1 FINDINGS AND CONTRIBUTIONS

They take my opinion when they must take various types of decisions in the company. I help my company to take project related decisions when different types of projects come up. As I am a web developer, I provide solutions to their projects through code

REFERENCES

https://www.w3schools.com/

https://github.com/

https://laravel.com/

https://leetcode.com/

https://pagespeed.web.dev/

https://mailtrap.io/

https://jetstream.laravel.com/2.x/installation.html

https://yajrabox.com/docs/laravel-datatables/master

https://github.com/axios/axios

https://github.com/laravel/ui

https://sweetalert.js.org/

https://dev.to/kingsconsult/how-to-create-laravel-8-helpers-function-global-function-d8n

https://laravel-excel.com/

https://www.codecheef.org/article/adding-toastr-notifications-in-laravel

https://developers.facebook.com/apps/

https://github.com/fzaninotto/Faker

Plagiarism Report