



An Undergraduate Internship/Project on
Shawn Novel & Associates Website

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Summer 2021

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Dissertation submitted in partial fulfillment of the requirements for the
Degree of Bachelor of Science in
Computer Science & Engineering

Department of Computer Science & Engineering

Independent University, Bangladesh

Attestation

I, Zunaid Amin Enan, officially certify that no work in this report has been plagiarized or copied from any other source. Any resources utilized are listed in the report's reference section. No assistance from a third party organization, other than the one for which I worked as an intern for the past three months, was requested during the completion of the report.

If any information regarding my project or report is needed, my internship supervisor, Faria Zohora, at my company, Avener Solutions, can be contacted at 01888799003.

Sincerely,

Zunaid Amin Enan
5th September 2021

Acknowledgement

I thank Allah for keeping me safe during the pandemic and for giving me the patience to work on this project. I'd like to thank my esteemed supervisor, Mr. Fahad Monir, Internship Supervisor & Senior Lecturer, Independent University, Bangladesh, for his valuable advice which helped me to prepare and complete this report. He has patiently, with utmost diligence, walked me through the entire report-writing process.

Working as an intern for a small company like Aveneur Solutions has been a fantastic experience. I'd like to thank Aveneur Solutions for giving me the opportunity to work with them. Before the pandemic started, I was able to experience the office environment and it helped me to adapt to this new world of being a software developer. They even allowed me to work from home during the pandemic which helped me to stay connected with the office and dive into the world of technology.

Mr. Muiz Shahabuddin (Chairman, Aveneur Solutions) and Miss. Maliha Rahman (Managing Director, Aveneur Solutions) deserves special thanks as well. Likewise, I'd like to convey my heartfelt gratitude to all Aveneur Solution employees that worked with me to complete this job report.

Zunaid Amin Enan

Student ID: 1610543

May 2021

Dhaka, Bangladesh

Letter of Transmittal

5th September 2021

Mr. Fahad Monir

Internship Supervisor & Senior Lecturer

Department of Computer Science and Engineering

School of Engineering, Technology and Sciences

Independent University, Bangladesh

Subject: Internship report on ‘Shawn Novel & Associates Website’, a Web Application using Django & ReactJS

Dear Sir,

It gives me great pleasure and pride to submit my Internship report on the Shawnnovels Website under your supervision. In this report, I have attempted to present my project work, my experiences, and my accomplishments.

From 1st of July, 2021 all the way to the present, I have completed my internship at Avenir Solutions as a Full Stack Web Developer. Throughout this time, I have gained real-world professional experience and knowledge in a variety of areas. This report contains a summary of all of my project work, experiences, and knowledge from this internship.

I'd like to express my gratitude for your unwavering support, advice, and kindness throughout this whole internship process. I've attempted to finish this with the utmost sincerity and honesty. I sincerely hope and pray that this report meets all of your standards and exceeds your expectations.

Thank you. Yours sincerely,

Zunaid Amin Enan

ID: 1610543

Student, SECS

Evaluation Committee

Signature

Name

Supervisor

Signature

Name

Internal Examiner

Signature

Name

External Examiner

Signature

Name

Convener

Abstract

Legal services are hard to find in this digital age. Most of us don't have any clue about the rules and regulations about a certain situation. Many people out there face various kinds of problems where they need legal help. This is where the "Shawn Novels & Associates" website comes in. The website was made in such a way that if a user visits the website, they can easily browse all the legal services available. After the user decides on a service, they can visit the contact page and fill up the contact form, by typing in their email and the service they want. The user can also browse through the latest legal articles posted by the Shawnnovel Team to get a more detailed insight about the legal sector of this country. By visiting the Client's page, the user can also check all the clients the Shawnnovel team has worked for. There's also a "Join Us" page for people who want to join the team.

All in all, the "Shawn Novels & Associates" website is here to help the people out there who need legal help in any sector of their lives. To make their life easier by giving them the best possible legal service is the goal of this whole platform.

The admin has full control of the website. The admin panel has all the necessary features to update the services, the clients, the articles and the images, etc.

The goal of making this website is to save time and money of the company and connect the people with "Shawn Novels & Associates" who need legal help.

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Chapter 1

1. Introduction

We live in a world where everything is becoming digitized. Our lives have been made far too simple by web applications. This digital world has made us come closer to each other. We may learn about any topic by conducting an online search, order any goods from one of the many ecommerce websites available, and even consult with a doctor via the internet. But, when it comes to acquiring legal services or information, there aren't any distinguished websites out there.

Our client, "Shawn Novels & Associates" is trying to address this problem by providing an informative website with all the legal services they can provide. There are two sides to this website. The admin (backend) and the userside (frontend). The admin can add new services, contacts, news, people and even services. The userside extracts all the information from the backend and displays them in an organized manner. Potential customers can get legal help by sending an email through the contact page. With these functionalities in mind, the website was developed to serve the customers out there and help them by providing legal services

1.1 Overview/Background of the Work

People nowadays need legal help in many areas but they are unable to find such services. This is where "Shawn Novels & Associates" website comes in. Users can visit the website, check out the services they provide and then contact them through the Email Form in the contact page to get the desired legal service. The users can even browse through the latest legal news provided by the Shawnnovel Team.

Additionally, users can apply to join the "Shawn Novels & Associates" team by sending an email and submitting their CVs through their "Join Us" page.

The admin of the website are able to manage the Services, News, Peoples, Contacts and even the Clients they have worked on.

1.2 Objectives

Shawn Novels & Associates is on a mission to help their clients by providing excellent quality legal services. With a high level of standard, expertise, commitment and determination, they want to maintain an upfront position in representing clients in the national and international arena.

Through this website, they want to help as many people as possible who are in dire need of legal services in their lives.

1.3 Scopes

Shawn Novels & Associates aims to deliver top notch legal services to their clients with the state of the art web development technologies.

1. They tried to portray their legal services in an elegant and organized way.
2. Users can easily communicate with them through an email or a phone call.
3. The features that are available in the website helps the user to move around with few clicks.
4. They have ensured training and technical support to help maintain the website.

Chapter 2

2. Literature Review

2.1 Relationship with Undergraduate Studies

2.1.1 Introduction to Programming

This was our starting course in Computer Science & Engineering. This course's major goal was to help us build a solid foundation in computer programming using C++. We were able to break down a complex programming problem into smaller sections, solve them, and create the solution in C++ after successfully completing the course.

2.1.2 Database Management

We learned the fundamentals of data access architectures, query processing and optimization strategies, and transaction management in this course.

2.1.3 Object-Oriented Programming

We were able to comprehend the advantages of object-oriented design and when it is an appropriate methodology to employ; design, write, and test programs that make appropriate use of advanced object-oriented facilities common to object-oriented languages, such as overloading and inheritance; manipulate classes provided in the programming API and incorporate them into solutions through this course.

2.1.4 Web Applications & Internet

We were able to apply fundamental web-based client-server architecture concepts, write server-side programs to deliver dynamic content for web pages, create secure and scalable web applications, analyze and model requirements and constraints for the design of client-server internet applications, design and implement a client-server internet application that accommodates specific requirements, and design and implement a client-server internet application that accommodates specific requirements, with the help of this course.

2.2 Related Work



S Hossain & Associates is a full service law firm in Bangladesh and has adequate knowledge, expertise, lawyers, consultants and logistics to undertake any legal, para legal or related service. They are experts in any litigation i.e. cases before any court of law be that Bangladesh Supreme Court, Judges Court, Labour Court, Magistrates Courts etc. Practice areas include Litigation, HR & Employment issues, Divorce and family law issues, Child custody and Adoption, Banking & Finance, Company matter, Admiralty etc.



A.S & Associates is a leading Bangladeshi law firm based in Dhaka with a branch office at Mymensingh and a networked legal firm at Moulvibazar, Sylhet. The firm provides a comprehensive range of modernized legal services for both national and international clients.



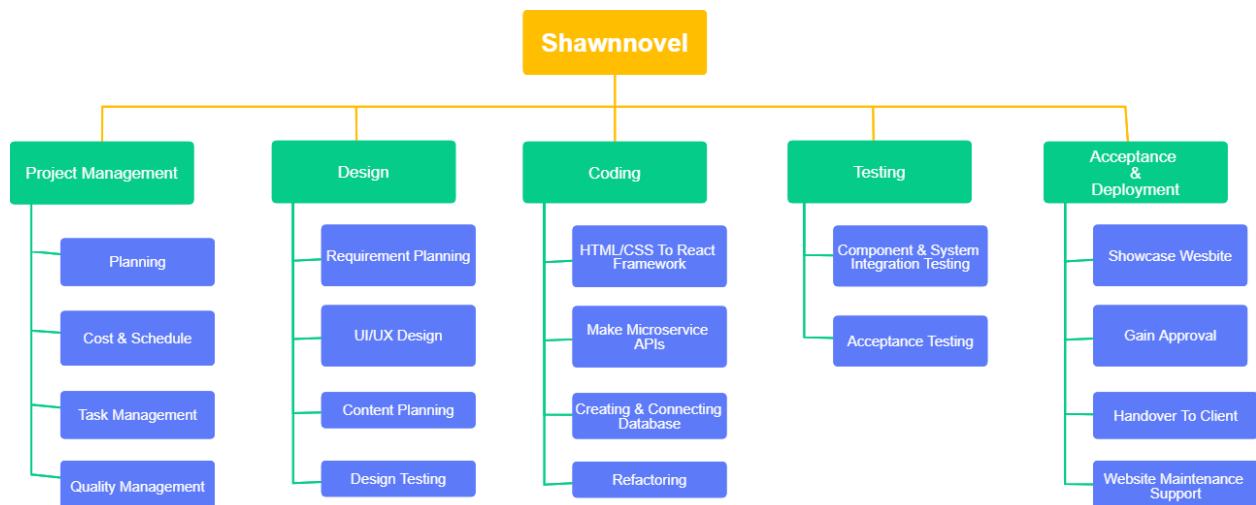
FMA's corporate & commercial legal services in Bangladesh acts for various foreign and domestic producers, distributors, service suppliers, trade associations in a broad range of international trade and services matters, from technology to heavy industry, to telecommunications. The firm has experienced trade lawyers to provide these services.

Chapter 3

3. Project Management & Financing

3.1 Work Breakdown Structure (WBS)

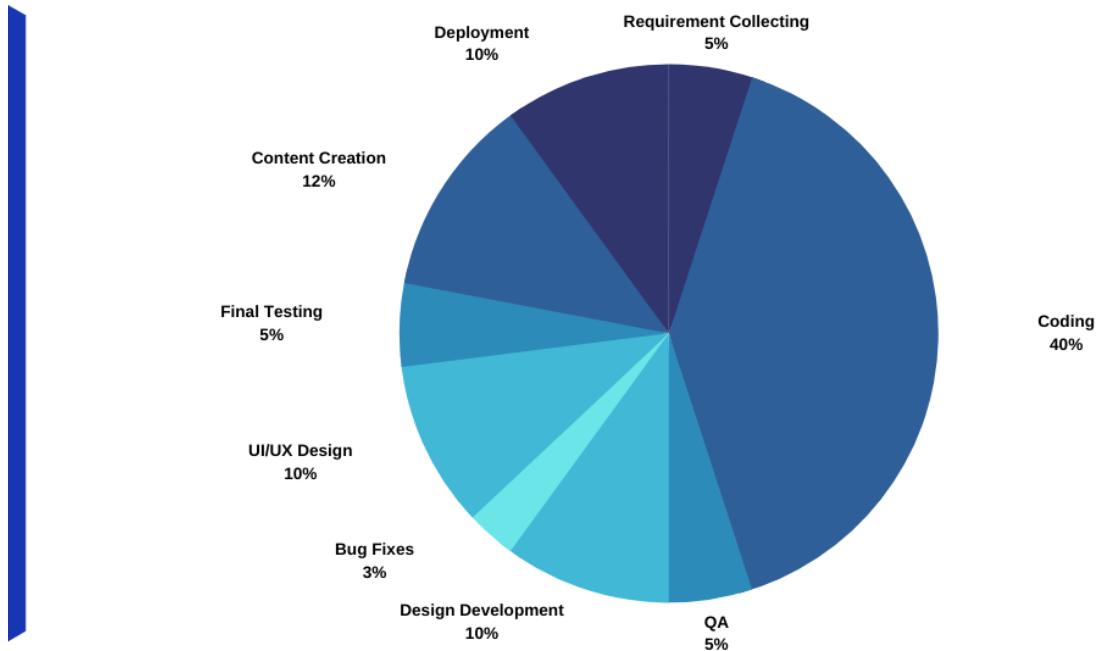
A work breakdown structure is a visual representation of the project that also serves as a guideline and a hierarchical overview. We can build tasks by breaking down deliverables, which can then be divided down into subtasks as needed to meet the project's goal.



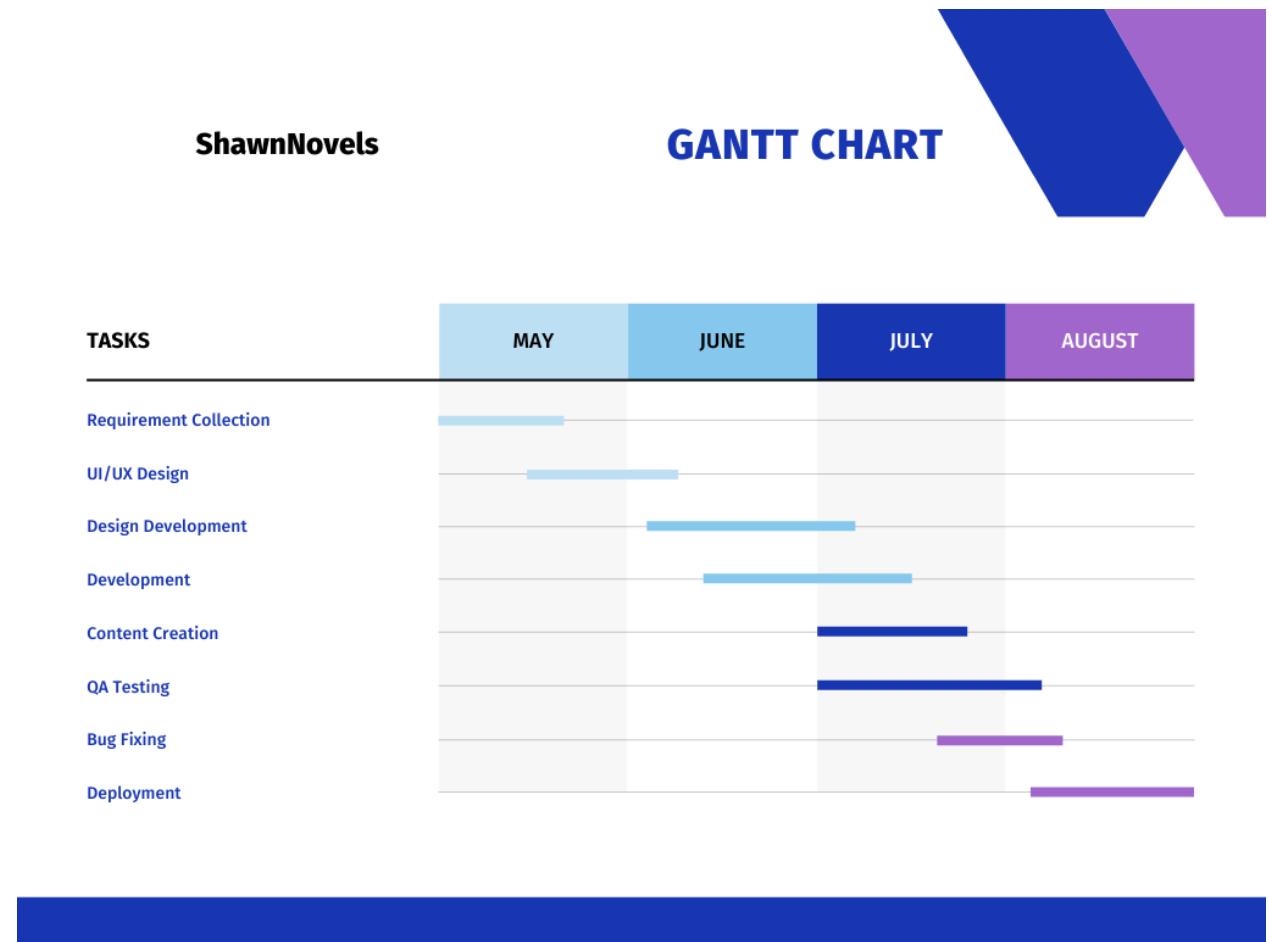
3.2 Process/Activity wise Time Distribution

Process wise time distribution is defined by the projected time required to complete a project successfully. This aids the developers in creating a mental map of how quickly they must work to fulfill the deadlines. To accomplish any project, time management is essential.

PROCESS/ACTIVITY WISE TIME DISTRIBUTION



3.3 Gantt Chart



3.4 Process/Activity wise Resource Allocation and Estimated Costing

Type	Name	Description	Availability	Price
Hardware	Computers/Laptops	Platform needed to work	High	Tk. 480,000
	Routers	Assigned to a number of employees for individual port support	High	Tk. 10,000
	Portable Flash Drives	Required for offline data transfer among developers	High	Tk. 10,000
Network	Internet	Required to connect to web	High	Tk. 2,000/m
	Hosting	Required to store web contents	High	Tk. 10,080/ annum
	Domain	Required for site identification	High	Tk. 800/ annum
	Cloudflare Support	Required for DNS Security and high speed page loading through rerouting	High	Tk. 0
Human	Project Manager	Required to organize and allocate work	High	Tk. 80,000/m
	Ui/Ux Designer	Required to generate and test the design	High	Tk. 20,000/m
	Developers	Required to code and develop the website	High	Tk. 35,000/m /dev
Software	Microsoft Visual Studio	Required to run the framework used to develop the website	High	Tk. 0
	Windows	Operating system required for Windows Users	High	Tk. 0
	Linux	Operating system required for Linux Users	High	Tk. 0
	Mac OS	Operating system required for Mac Users	High	Tk. 0

Chapter 4

4. Methodology

When working on a project, software development methodology refers to the systematic processes that must be followed. It's an amalgamation of design ideals and pragmatic realities that dates back to the dawn of computing. The purpose is to establish a method for software development that is systematic.

There are various kinds of software development methodologies:

1. Agile
2. Waterfall
3. Prototyping
4. Iterative and incremental development
5. Spiral development
6. Rapid application development
7. Dynamic system development model
8. Extreme programming

Agile methodology was chosen for this project.



Agile has become one of the most popular software development approaches. It differs from the traditional linear method and thus it takes a different approach to solve the problem at hand. Instead of emphasizing paperwork and inflexible procedures, Agile focuses on how to satisfy consumers.

Here are the reasons for choosing agile methodology:

- 1. Faster Time To Market:** Most individuals are sick of multi-month delivery cycles that frequently provide a feature that isn't suitable for display, and our clients aren't interested in purchasing. The prospect of two-week delivery cycles and quarterly release cycles is quite attractive to the customers. Our industries, as well as our competitors, are simply moving too quickly. As a result, we must show signs of progress in terms of getting working goods out the door more quickly.
- 2. Customer Satisfaction:** It satisfies the customer if they utilize the feature they wanted . They are also pleased to have the option of adding additional highlights on a regular basis depending on their input. As a product customer, I can't think of anything worse than investing resources in something that doesn't work, doesn't accomplish what we need it to do, and we can't see any way to improve it. Agile enables us to develop positive relationships with our customers, in which we collaborate to address challenges.
- 3. Build the right products:** Whether or not we are building the particular features that our clients have requested, consistent delivery drives us to assemble them in the way that our clients will really utilize them. We have the opportunity to let our clients see the evolving feature, respond to it, and adjust it as they go when we implement it in smaller increments. Agile assists both the customer and the team in achieving the best possible result.
- 4. Early risk reduction:** Risk isn't considered as a separate area to be managed in Agile. Risk management is what Agile is all about. We reduce the risk of developing an incorrect product by communicating early and receiving the feedback. We reduce the chance of our product not being built right not long before we have to put it up for sale to the market by constantly incorporating and manufacturing imperfection free code.
- 5. Better quality:** Agile reduces time, cost, and quality while also allowing us to adjust the scope of the business and the scope of the arrangement. You probably won't get everything you wanted, but you can trust what was delivered.
- 6. Efficiency:** People have realized that large-scale future plans, as a whole, are ineffective in the long term. Agile promises to help us get rid of the problems we don't need so we can get back to the business of writing useful software.

Chapter 5

5. Body Of The Project

5.1 Work Description

Being part of the development team, I was given the responsibility to handle the backend and deploy the whole application on the internet. The frontend is based on ReactJS along with Javascript, TypeScript and SCSS. Whereas, the backend is based on Django Framework. PostgreSQL is used to serve as a database for the whole web application.

To deploy the web application, I used a CentOS based server which was bought from A2Hosting. Docker was used to deploy the backend and the PostgreSQL database server. Whereas, the frontend was deployed in Cloudflare pages.

Tasks that were given to me were completed at the end of the workday and I had to explain what I did to complete the tasks.

5.2 System Analysis

System analysis is carried out to determine a system's objective and to examine its components. This is a problem-solving procedure that determines how effectively the system is performing its functions. Planning, analysis, design, deployment, and maintenance are all included in this phase. It is a method of interpreting and gathering data, identifying faults, and dismantling the system into its constituent parts.

5.2.1 Six Element Analysis

Process	Human	Non-Computing Hardware	Computing Hardware	Software	Database	Network & Communication
Visit Website	All Users	N/A	Pc, Laptop, Smartphone	All Browsers	PostgreSQL	WAN
Login	Admin	N/A	Pc, Laptop, Smartphone	All Browsers	PostgreSQL	WAN
Admin Dashboard	Admin	N/A	Pc, Laptop, Smartphone	All Browsers	PostgreSQL	WAN
Homepage	All Users	N/A	Pc, Laptop, Smartphone	All Browsers	PostgreSQL	WAN
About Us	All Users	N/A	Pc, Laptop, Smartphone	All Browsers	PostgreSQL	WAN
Services	All Users	N/A	Pc, Laptop, Smartphone	All Browsers	PostgreSQL	WAN
People	All Users	N/A	Pc, Laptop, Smartphone	All Browsers	PostgreSQL	WAN
Clients	All Users	N/A	Pc, Laptop, Smartphone	All Browsers	PostgreSQL	WAN
News & Publication	All Users	N/A	Pc, Laptop, Smartphone	All Browsers	PostgreSQL	WAN
Join Us	All Users	N/A	Pc, Laptop, Smartphone	All Browsers	PostgreSQL	WAN
Contact Us	All Users	N/A	Pc, Laptop, Smartphone	All Browsers	PostgreSQL	WAN

5.2.2 Feasibility Analysis

Feasibility analysis is the examination of a proposed project to determine whether it is feasible and should be pursued. The primary goal of this analysis is to confirm the design, plan, and strategy. Assumptions, constraints, decisions, and approaches can all be validated using this method.

These are the main parts of the feasibility analysis:

1. **Technical Feasibility:** A technical feasibility study looks into the specifics of how you plan to offer a product or service to clients. Consider materials, labor, transportation, the location of your firm, and the technology required to bring it all together.

Shawn Novel & Associates was created with Django Framework and the ReactJs framework. The use of typescript components from the latest ReactJs version, as well as standard HTML, CSS, and JS, resulted in a significantly more efficient and speedier website. Furthermore, these technologies are extremely popular in today's market and are widely implemented by a growing population.

2. **Operational Feasibility:** The operational feasibility of a proposed system is determined by how well it solves problems and meets system requirements defined during the scope definition and problem analysis phases. It is dependent on the project's human resources and entails predicting whether the system will be used after it is designed and implemented.

Shawn Novel & Associates has been designed in such a way that it is incredibly simple to use. Without a doubt, people will accept it. It's a well-thought-out website. It will be accessible to people of all ages. It alleviates physical and technological difficulties. To use this system, users do not require a lot of technical knowledge. The users can understand every instruction. We are hopeful that this system will be able to meet the needs of the users.

3. **Economic Feasibility:** Costs and advantages are determined in economic feasibility. It calculates cash flow and assigns costs and benefits to their respective amounts. Economic feasibility takes into account both development and production expenses. This system as a whole, is really a product. If this system is able to reach the people, it will undoubtedly be beneficial. Benefits, on the other hand, will vary depending on how the system is used by the users.

5.2.3 Problem Solution Analysis

Every product has problems. Here are the problems that might occur while using the website:

1. **Internet & Load Shedding:** An internet connection is a must have, to use this system after it is launched. Load shedding may cause issues with this system if anyone uses PC and Wifi routers.

Solution: Internet data is no longer so expensive that we cannot afford it. Our system uses a small amount of data. So even during a load shedding, the system will be operable using mobile data

2. **Eye Strain:** Because hazardous radiations are emitted by computer, laptop, and mobile screens, they may induce eye strain.

Solution: While using this system, the device's brightness should be maintained.

3. **Hosting:** We were confused about which hosting to choose for our system.

Solution: A2Hosting was chosen for its affordable yearly bill with better server specifications

4. **Securing the Django Backend Server:** The Django backend server when deployed in Docker, does not have the SSL mode on out of the box.

Solution: The Docker-Compose file had to be modified to implement the Let's Encrypt Bot which installs the SSL certificates in the system and thus securing the backend API.

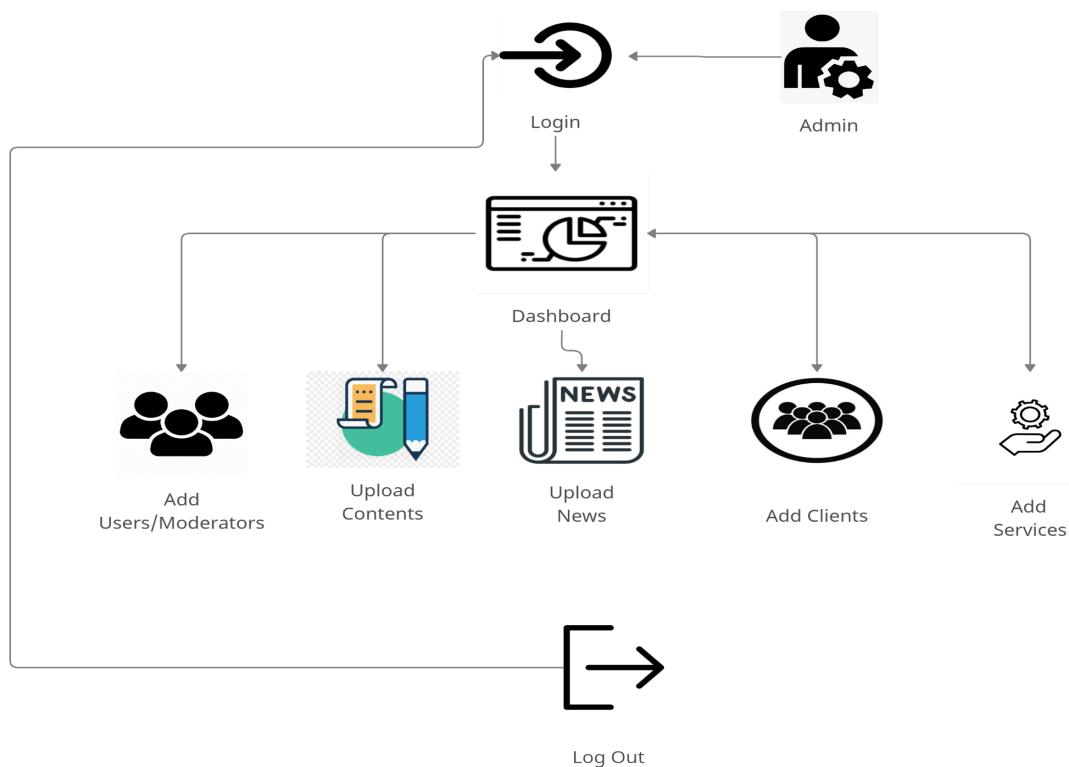
5.2.4 Effect and Constraints Analysis

This website will be able to guide all the arriving visitors to the Company's core depth and enlighten them about the legal services. As previously stated, our system has some limitations. We intend to overcome such limitations with our most recent website releases.

5.3 System Design

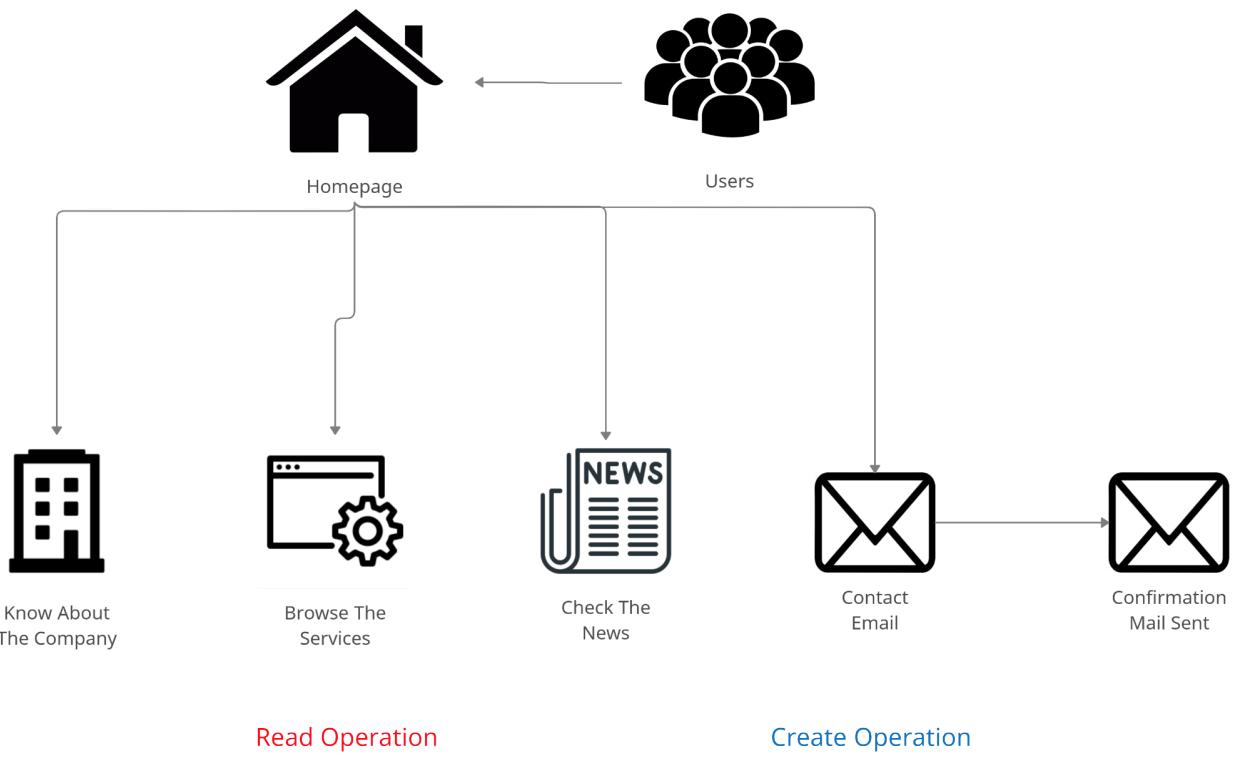
The process of defining the architecture, product design, modules, interfaces, and data for a system in order to meet specific criteria is known as systems design. The application of systems theory to product development is known as systems design.

5.3.1 Rich Picture



Rich Picture Of The Admin Panel

There's only one type of Admin here who is in charge of everything. The admin controls all the content and the services of the website. These activities are carried out using our Restful CRUD APIs backed by the Django Rest Framework, which we created specifically for this Website in order to handle data in an efficient manner.



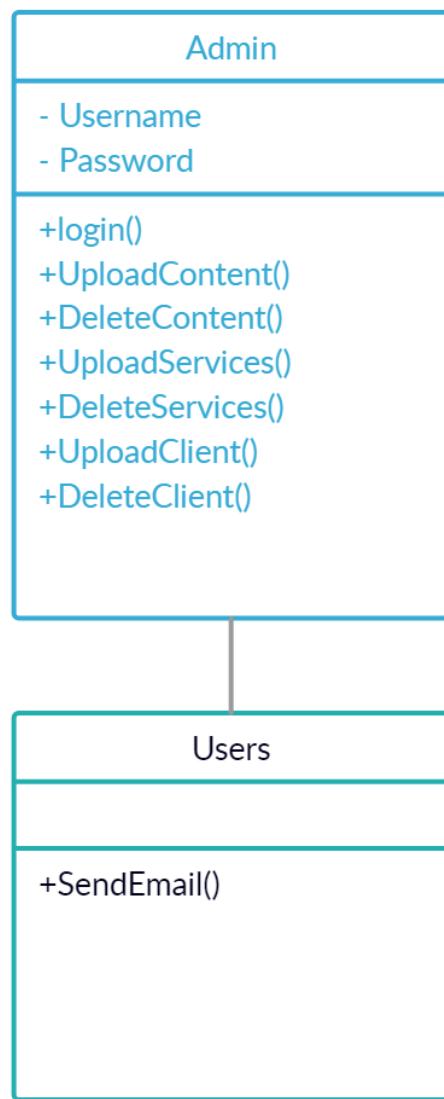
Rich Picture Of The User Module

When a user enters the website, he or she will be able to see all of the company's information along with all the legal services. The user(s) can view the news and all the other content, but they won't be able to change it. Users can send an email from the Contact Page, but they won't be able to make changes to their submissions.

5.3.2 UML Diagrams

A UML diagram is a diagram based on the UML (Unified Modeling Language) that is used to visually describe a system, including its major actors, roles, actions, artifacts, or classes, in order to better understand, edit, maintain, or document system information.





Class Diagram

5.3.3 Functional & Non-Functional Requirements

Functional Requirements

The basic system behavior is defined by the functional requirements. This can be viewed in terms of how the system responds to given inputs and includes what the system can and cannot achieve. Features that enable the system to perform as planned is maintained by the functional requirements. The system will not function if the functional requirements are not met. Product features are referred to as functional requirements, and they are focused on the needs of the user.

Functions	Input	Process	Output
Visit Website	Enter Website Address/Domain	Data is loaded from the server and the database	The website is shown with dynamic data
Submit Contact Email	Fill The Form	The email is processed by the server	Confirmation Message is shown
Upload Services	Input Admin Credentials	Admin Credentials is matched with the database	Page appears to upload services
Upload News	Input Admin Credentials	Admin Credentials is matched with the database	Page appears to upload news
Manage Contents	Input Admin Credentials	Admin Credentials is matched with the database	Page appears to manage contents

Non-Functional Requirements

A non-functional requirement, on the other hand, will explain how a system should act and what limitations it has in terms of functionality. Non-functional requirements encompass all criteria that aren't addressed by the functional requirements. They define the criteria for judging a system's operation rather than specific actions.

Performance & Scalability: This determines how quickly the system shows up and how well it works as workloads increase. We will test our system in GTMetrix and Google Page Speed after it is launched to see how fast it is and how responsive it is. We will carry out the optimization in accordance with the page results. As this system will be used by a large number of people at the same time, there is a chance that the website will slow down due to traffic. We intend to improve the system's speed in light of all of these factors.

Portability & Compatibility: This decides which operating systems, browsers, hardware, and versions are supported by the website, and the versions the system will work in.

Security: This determines how the system and its data is protected by malicious attacks/software. In our system we have taken necessary precautions to protect the system against said attacks.

Usability: This shows how easy it is for the user to use the system. The interface and the features were designed in such a way that the user does not face any difficulties whilst using the system.

5.4 Product Features

The features of this system that the users can experience are listed down below.

5.4.1 Input

Contact Us Page: The user can visit this page to set up an appointment by filling up the email form.

The screenshot shows a website header with navigation links for About Us, Services, People, Clients, News & Publications, Join Us, and Contact Us. It also includes social media icons for Facebook and LinkedIn. Below the header, there is contact information: address (260/C Tejgaon I/A, Dhaka-1208), email (admin@shawnnovel.com), and phone number (+88 (02) 88-78565, +88 016-1555-5687). A large, semi-transparent watermark with the text "For Appointment" is overlaid on the page. On the left side, there is a Google Map showing the location of Shawn Novel & Associates in Tejgaon Industrial Area, Dhaka. At the bottom, there is a footer bar with links for Disclaimer, Copyright © 2021 Shawn Novel & Associates, and Developed by Avenueur.

5.4.2 Output

Available Services: Hovering the mouse on the services button shows all the available services the system can provide to the user.

The screenshot shows the website's header with navigation links: About Us, Services, People, Clients, News & Publications, Join Us, and Contact Us. The 'Services' link is highlighted. Below the header is a grid of service categories. A mouse cursor is hovering over the 'Services' link, which has a blue outline, indicating it is active. The services listed include: Cross Border Transactions, Corporate & Compliance, Construction & Real Estate, Commercial Transactions, Dispute Resolution, Employment & Labor, Angel Investment, Banking, Construction, Capital Restructuring and Finance, Arbitration, Compliance, Foreign Direct Investment, Business Incorporation, Due Diligence, Digital Media & Entertainment, Litigation, Labor Code, Foreign Entity & Repatriation, Conveyance, Factory and Environmental, Insurance, Mediation, Service Rules, International Business Transactions, Corporate Counsel, Mortgage & Hypothecation, Intellectual Property, Negotiation, Termination and Unlawful Dismissal, Joint Ventures, Corporate Due Diligence, Turnkey, Maritime and Inland, Mergers & Acquisitions, Tax, Startups, Project Finance, and Public Procurement. At the bottom of the page is a map showing the location of Shawn Novel & Associates in Tejgaon Industrial Area, Dhaka, with a red marker indicating the office's position. There is also a placeholder for a contact form and a 'Send' button.

People Page: Clicking on the people button shows all the members of the Shawn Novel & Associates team.

The screenshot shows the website's header with navigation links: About Us, Services, People, Clients, News & Publications, Join Us, and Contact Us. The 'People' link is highlighted. Below the header is a large image of a man with glasses and a suit, identified as 'Head of the Firm'. Below the image is the name 'Shawn S. Novel'. At the bottom of the page is a footer with links: Disclaimer, Copyright © 2021 Shawn Novel & Associates, and Developed by Avenir.

Clients Page: Clicking on the clients button shows all the clients the team has worked with.

The screenshot shows the 'Clients' section of the website. At the top, there's a header with navigation links: About Us, Services, People, Clients (which is the active tab), News & Publications, Join Us, and Contact Us. Below the header, a banner states 'Industry leaders worldwide have trusted Shawn Novel & Associates for their legal services.' followed by a grid of logos for various clients. The clients listed include AWS, ACE Project Management, ActionAid, Adventure Capital, Alcatel-Lucent Enterprise, Alpha Potato, AmTrust, Amazon, and ANANTA. At the bottom of the page, there are footer links for Disclaimer, Copyright © 2021 Shawn Novel & Associates, and Developed by Aveneur, along with social media icons for Facebook and LinkedIn.

News & Publications Page: Clicking on the News & Publications button shows all the news that the team has uploaded.

The screenshot shows the 'News & Publications' section of the website. The header is identical to the Clients page. The main content area features a large title 'News & Publications'. Below it, there are six news items displayed in a grid. Each item includes a thumbnail image of a globe, the article title, and a brief description. The news items are: 'Journal: Myanmar, the Modern Day El Dorado', 'Article: Marital Rape', 'Article: Hindu Women's Right to Inherit Property', 'Article : Covid-19, Capitalism & Climate Change', 'Journal: Labor and Union Rights', and 'FEPD Circular No. 27: 14th July 2020'. At the bottom of the page, there are page navigation links for '1', '2', and 'Next'.

Join Us Page: Clicking on the Join Us button shows the contact information to the user if the he/she is interested to work with the team.

The screenshot shows a clean, modern website layout. At the top, there's a header with navigation links: 'About Us', 'Services', 'People', 'Clients', 'News & Publications', 'Join Us', and 'Contact Us'. Social media icons for Facebook and LinkedIn are also present. Below the header, there's a main content area with a large, abstract background graphic of overlapping wireframe planes. On the left side of this graphic, there's a text box containing a paragraph about the firm's commitment to developing long-term sustainable careers for its associates. On the right side, another text box encourages interested candidates to send their CV to the email address 'admin@shawnnovel.com'.

About Us Page: Clicking on the About Us button shows what Shawn Novel & Associates is all about.

The screenshot shows the 'About Us' page of the website. The layout is similar to the 'Join Us' page, with a header and a main content area featuring the same abstract background graphic. The 'About Us' section contains a heading 'About Us' and a detailed paragraph describing the firm's commitment to providing excellent legal services to its clients, emphasizing its expertise in cross-border transactions and investment law. Another paragraph discusses the firm's representation of corporate clients in various legal matters, including commercial, banking, and maritime issues. The right side of the page contains a sidebar with contact information for the firm, including an address, telephone number, and email address.

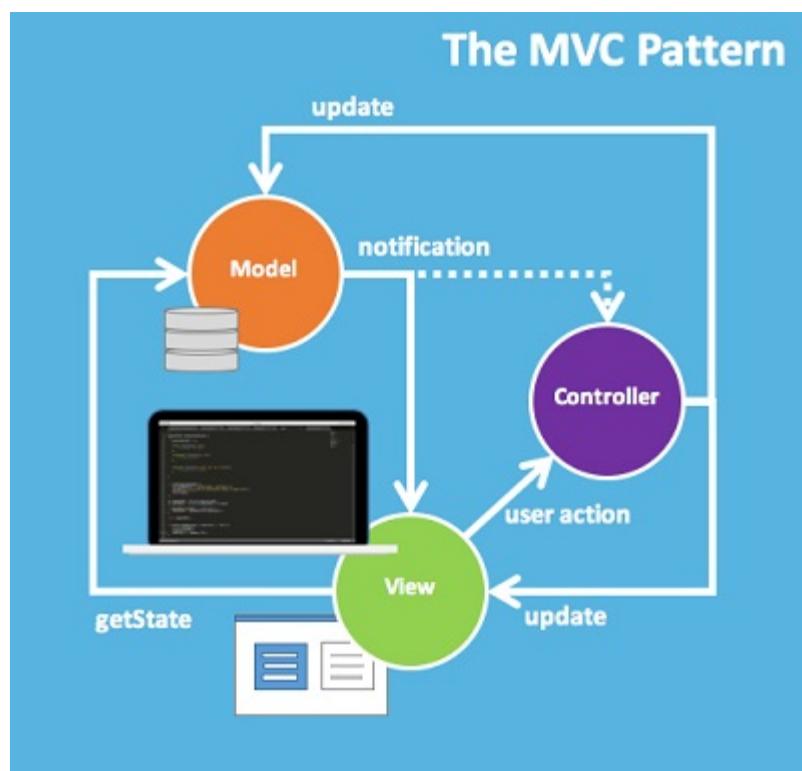
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Developed by Avenir

5.4.3 Architecture

We have utilized Django Framework with Reactjs, which is an amazing framework, to create this web application. It follows the MVC pattern. The model includes a method for inserting, retrieving, and updating data from the database. Reactjs is used to create the view, which contains the data that is displayed to the user. The controller connects the model and view in order to process HTTP requests and build a web page. All requests are received by the controller, which then passes them on to the model and view. When a person goes to a website, he or she sees the information that is in the database. The database we have used here is Postgresql. When he performs an activity, the controller receives the request and acts as a mediator between the model and the view.



MVC Architecture Diagram

Chapter 6

6. Results & Analysis

Black Box Testing: It's also known as Behavioural Testing, and it's a software testing method in which the tester has no knowledge of the system's internal structure, design, or implementation. These tests might be functional or non-functional, however functional tests are more common.

White Box Testing: It is a software testing technique that involves examining the product's internal structure, architecture, and coding in order to verify input-output flow and improve design, usability, and security. White box testing is also known as Clear box testing, Open box testing, Transparent box testing, Code-based testing, and Glass box testing since the code is visible to the testers.

The table below shows the tests that were conducted on the system.

Task	Description	Conditions	Success Rate	Shortcomings	Working?
Submit Contact Form	User fills up the form in the Contact Page	The user needs to be connected with an internet enabled device	100%	The user cannot change the content of the email after the submit button is clicked.	Yes

Result Table For Users

Task	Description	Conditions	Success Rate	Shortcomings	Working?
Create Services	Admin can add a service	The admin needs to be connected with an internet enabled device	100%	N/A	Yes
Update Services	Admin can modify a service	The admin needs to be connected with an internet enabled device	100%	N/A	Yes
Create News	Admin can add a news	The admin needs to be connected with an internet enabled device	100%	N/A	Yes
Update News	Admin can modify a news	The admin needs to be connected with an internet enabled device	100%	N/A	Yes
Add Clients	Admin can add a client	The admin needs to be connected with an internet enabled device	100%	N/A	Yes

Modify Client	Admin can modify a client	The admin needs to be connected with an internet enabled device	100%	N/A	Yes
Add Content	Admin can add a content	The admin needs to be connected with an internet enabled device	100%	N/A	Yes
Modify Content	Admin can modify content	The admin needs to be connected with an internet enabled device	100%	N/A	Yes
Check Email	Admin can check emails	The admin needs to be connected with an internet enabled device	100%	N/A	Yes

Result Table For Admin

Chapter 7

7. Project as Engineering Problem Analysis

7.1 Sustainability of the Project/Work

The sustainability of this system was kept in mind when the development of this system started. The company plans to make revenue with this website by providing all the legal services they can provide to the customers out there. To provide more comfort and ease to the people, new technologies and features will be implemented in the upcoming future.

7.2 Social and Environmental Effects and Analysis

Digitalizing the legal services will bring huge comfort and ease to the people out there. They will be able to get any legal services for their need in a matter of seconds, thus bringing mental peace and satisfaction to the customers at large.

7.3 Addressing Ethics and Ethical Issues

The misuse or disclosure of a customer's personal information may result in personal harm to others. As a result, the development team has used encryption and taken security measures to prevent data hacking.

Chapter 8

8. Future Work & Conclusion

8.1 Future Works

For the new future, the features down below were kept in mind and will be implemented soon.

- User Profiles
- Chat Bot
- Tracking Service to keep track of the services
- Auto Backup of the whole site

8.2 Conclusion

This report is based on the project “Shawn Novel & Associates Website” that I have worked on at Aveneur Solutions. This report contains all of the detailed information and the methodology used to make this website. Due to the Covid 19 Pandemic. the work pace was a bit slow, but we were able to handover the website to our client. The client was happy and satisfied with our work.

The team members were just amazing. Without their continuous support and help, we wouldn't have been able to pull it off. The internship time taught me how to function in a corporate office under challenging conditions. The time I spent at the organization was an excellent opportunity for me to get valuable expertise.

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