



An Undergraduate Internship on Senoark Website

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

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Attestation

This is to certify that the report titled “Senoark Website” is completed by me, Zulker Nien (1610287), 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 Mr. Bijoy R. Arif(Supervisor). I also certify that all my work is original 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

Zulker Nien

Name

Acknowledgement

Above all else, I want to express my gratitude towards Almighty Allah for enabling me the continuance and to buckle down. It is my benefit that I got the position in Cerulean Creative Technologies.

I express my profound thankfulness to my director Bijoy R. Arif, Lecturer, Department of Computer Science and Engineering, Independent University, Bangladesh, for his important guidelines, helpful reactions and mainly a unique mentoring that helped me face the real world problems and focus on the increasing challenges of the professional sector. I additionally express my profound thankfulness to Mr. MBE Tameem Enam (Project Manager, Cerulean Creative Technologies) and Mr. Aga Rafsan (Product Manager, Cerulean Creative Technologies). Likewise, I express my profound thankfulness to all representatives of Cerulean Creative Technologies for collaborating to assist me with completing this job report.

Last but not the least, I would like to thank my parents and other family members for their eternal support given to me.

Zulker Nien

January 27, 2021

Dhaka, Bangladesh

Letter of Transmittal

January 27, 2021

Md. Bijoy R. Arif

Lecturer

Department of Computer Science and Engineering

Independent University, Bangladesh.

Subject: Internship Report submission Autumn, 2020.

Dear Sir,

It is a great pleasure and honor to submit my Internship report on Senoark Website under your guidance. I have tried to present my project work, my experiences and achievements in this report.

I have completed my Internship from Cerulean Creative Technologies as a Full Stack Web Developer from the 1st of January 2020 to date. During this whole time period, I have gathered real life working experience and knowledge in various aspects. This report includes all the project works, experiences and learning that I have achieved during this internship.

I would like to thank you for your immense support, guidance and kindness. I have tried to complete this with utmost honesty and sincerity. I hope and pray that this report fulfills all the requirements and is up to your expectations.

Sincerely,

Zulker Nien.

Evaluation Committee

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Signature

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Name

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Supervisor

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Internal Examiner

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External Examiner

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Name

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Convener

Abstract

Creating new and innovative ideas to help your business stand out and make a mark in a saturated market. You tell us your story and Senoark brings it to life with their creative works that elevates your brand and makes it the talk of the town. Whether you are looking to simply improve your brand image or virality to etch it into the mind of your audience, Senoark can provide the ideas and tools to make it happen.

Senoark takes data from their clients regarding their business or company and they take those data through rigorous analysis and come up with an optimum and efficient strategy for already established companies and startups.

This website will help them reach the innovative minds out there by showcasing all the services of Senoark. The website showcases their sister concerns, blogs uploaded by the moderators and the admins, their mission & vision for the future. There is a form for startup incubation pitch submissions that are to be submitted by the innovative minds who seek assistance and these are to be viewed by the moderators and admin of this website. The system will also show job openings and career opportunities. Through the help of a form and a file uploading mechanism, interested candidates would be able to submit their CVs. There is a special part in this website, which utilizes same components for faster loading. Managerial control of the entire system is given to the Admin. The Moderators can only manage the contents, update blogs, view and manage the filled startup incubation forms and the interested cvs for jobs.

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Chapter 1

Introduction

We are living in a world where each and every little thing is being digitized. Web applications have made our lives too easy. Nowadays they are being used in all the major sectors like businesses, educational institutions and so on.

So, considering the regular traditional business websites, we have come up with a modern, optimized and user-friendly website for the client. This system contains 2 sides. The admin and moderator side and the user side. The admins can access the database to collect forms and CVs that have been submitted by the users through the website using the admin panel. And the users will be able to get information about the company and submit their incubation ideas through the "Startup Incubator" form and apply for jobs through the website. As a whole, I want to say that this is a very robust system.

1.1 Overview/Background of the Work

People these days have ideas that can change the world but they are met with many obstacles. This website is the first step of the guide that would be provided by Senoark. Here, a base outline of the whole idea would become transparent between the user and the Senoark personnel. The user would fill up the required form and upload the presentation file for Senoark to review.

Furthermore, there are opportunities for the users to join the Senoark team through their career page by filling up the form and submitting their CVs.

The admins and moderators are able to manage blogs and the submissions by the users.

1.2 Objectives

Senoark Digital is on a mission to enhance the online presence of our clients by providing expert solutions that present the wow factor to help them not only stand out but also beat the competition. To help the community grow digitally by sharing amazing amount of knowledge through collaborations with like-minded entrepreneurs.

1.3 Scopes

Senoark projects to develop an integrated website that provides consolidated and steady image.

1. They tried to portray their sister concerns in a way which describes their services in accordance to Senoark.
2. They also tried to improve their visibility of service options.
3. The features they have provided help to move around to the desired page upon less clicks.
4. They have ensured training and technical support to help maintain the website.
5. Measure traffic.

Chapter 2

Literature Review

A company website might consist of many things most of which are informational blogs published on the World Wide Web. Earlier we have seen people asking for looking for jobs in newspapers and trying to find funding in newspapers. It did not allow the one who do not read newspapers to read those. Moreover, this had to go through a long process from choosing the news company to getting it approved. But now, just with a click, users can easily post their incubation ideas and look for jobs sitting from homes. This idea evolved from kickstarter where they helped other to grow and meanwhile they grew themselves.

2.1 Relationship with Undergraduate Studies

2.1.1 Introduction to Programming

This was an introductory course in Computer Science. The main objective of this course was to help us develop a strong foundation of computer programming using C++. After successful completion of the course we were able to break down a complex programming problem into smaller parts, solve them and write the solution in C++.

2.1.2 Database Management

Through this course, we got basic understanding of data access structures, query processing and optimization techniques, and transaction management.

2.1.3 Object-Oriented Programming:

Through this course, we were able to understand the benefits of object oriented design and when it is an appropriate methodology to use; 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.

2.1.4 Web Applications & Internet

Through this course, 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 constraints, based on analysis, modeling or requirements specification, select and justify the implications of implementation and design considerations to internet security.

2.2 Related Work

The websites of local yet very big companies like Bashundhara Group, Jamuna Group, Gemcon Group etc are made to showcase all of their services and products. These websites can be called web applications for their handpicked back-end services although there are very less back-end services for websites like these. **We researched these websites and implemented our ideas for the Senoark Website.**

One of the key services that Senoark provides is Startup Incubation and for the design and development of this special feature, reference was taken from **www.kickstarter.com**

Chapter 3

Project Management & Financing

3.1 Work Breakdown Structure

A work breakdown structure is a visual, a guideline and a hierarchical overview of the project. We can create tasks by breaking down the deliverables and these can again be broken down into subtasks as many times as needed to reach the goal of the project.

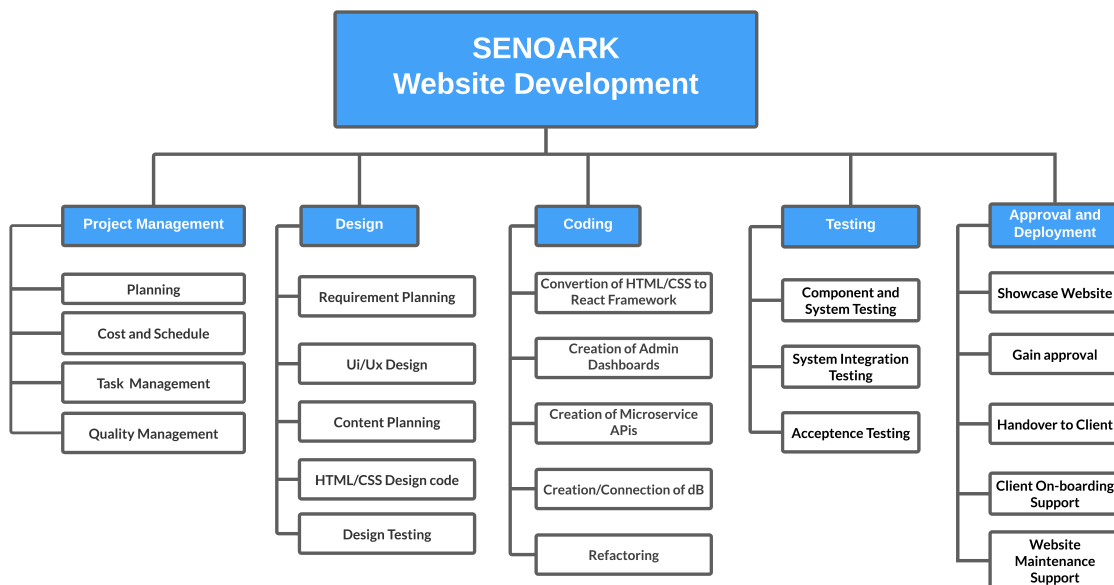


Figure 3.1: Work Breakdown Structure

Project team members were involved in developing the WBS to ensure consistency and buy-in. The WBS as we can see is consistent with the way in which work is actually going to be performed. Each WBS item are documented to ensure accurate understanding of the scope of work included and not included in that item. The WBS was made as a flexible tool to accommodate inevitable changes while properly maintaining control of the work content in the project.

3.2 Process/Activity wise Time Distribution

The estimated time required to end a project successfully defines process wise time distribution. This helps the developers create a mind map as to how efficiently they need to work in order to meet the deadlines. Time distribution is greatly needed to complete any project.

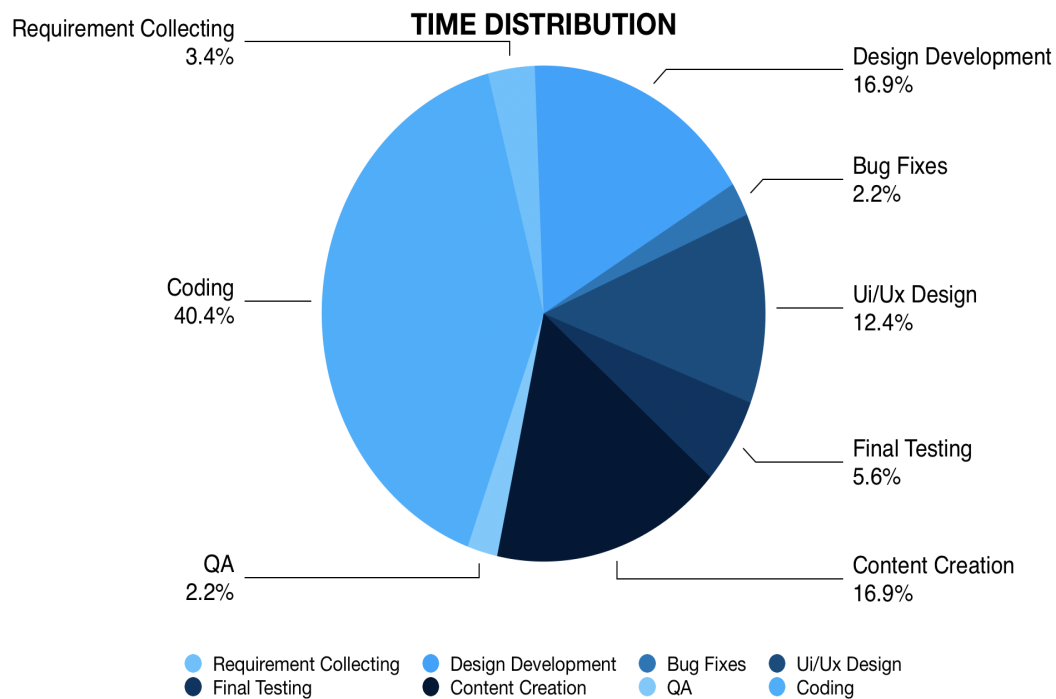


Figure 3.2: Pie Chart of Activity Wise Time Distribution

Here in the figure, Percentage (%) determines the time percentage needed to complete the tasks.

3.3 Gantt Chart

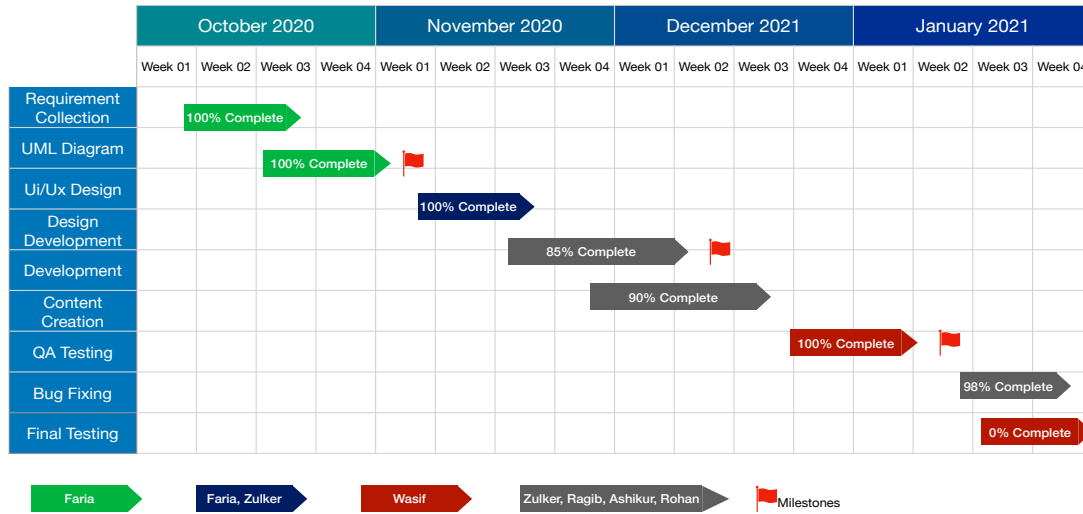


Figure 3.3: Gantt Chart

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

Table 3.1: Process/Activity wise Resource Allocation and Estimated Costing

Chapter 4

Methodology

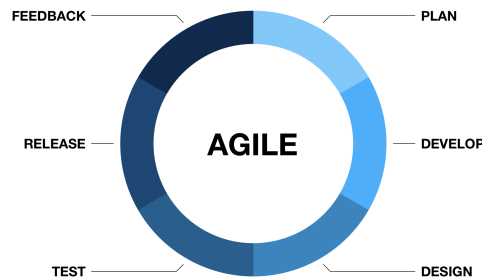
Software development methodology is a procedure or arrangement of procedures utilized in programming advancement. Once more, very wide, however that it is things like a design phase, and development phase. It is intended to depict the how of the life cycle of a piece of software.

There are various types of software development methodologies. Such as-

- 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**

For this project we have chosen the agile methodology. Sometimes it works in iterative development as well.

Agile is a process by which a team can manage a project by breaking it up into several stages and involving constant collaboration with stakeholders and continuous improvement and iteration at every stage. This approach starts with customers portraying how the finished result will be utilized and what issue it will solve. It doesn't fabricate a whole framework on the double, yet rather grows steadily.



Reasons for choosing agile methodology

1. Faster time to market:

Heaps of people that choose to go lithe are pretty tired of multi month delivery cycles that frequently convey an inappropriate item to showcase and our clients simply aren't keen on purchasing. The possibility of two weeks' delivery cycles and quarterly release cadences is quite engaging. Our business sectors and our opposition are simply moving excessively quick. So, we must show signs of improvement at getting working items out the door faster.

2. Customer satisfaction:

Building items our clients can utilize satisfies them. Having the option to frequent add new highlights based on their feedback makes them happy as well. As a product client, I don't know there is anything more terrible than putting resources into an item that doesn't work, doesn't do what we need it to do, and not being not able to see any way ahead for improving it. Agile helps us to build good relationships with our customers, one where we are working together to get problems solved.

3. Build the right products:

Regardless of whether we are building the specific highlights that our clients are asking for, steady delivery encourages us to assemble them the manner in which our clients will really use them. At the point when we deliver in smaller increments, we have the chance to let our clients see the developing item, react to it, and change it as they go. Agile helps the customer and the team converge on the best possible outcome.

4. Early risk reduction:

Agile doesn't regard risk as a different area to be overseen. Agile is risk management. By conveying early and getting feedback, we lessen the danger of building an inappropriate product. By ceaselessly incorporating and fabricating imperfection free programming, we

decrease the risk that our stuff wasn't constructed right not long before we have to put it up for sale to the market.

5. Better quality:

Agile fixes time, cost, and quality and gives us the tools to change the business and specialized extent of the arrangement. You probably won't get all that you sought after, however you can believe what was delivered.

6. Efficiency:

People realize that the large forthcoming plans as a rule turn out pointless over the long run. Individuals realize that the individuals in their practical silos aren't working very well together. Lithe holds the guarantee of helping us wipe out the stuff we don't require and get down to the matter of building working software.

Chapter 5

Body of the Project

5.1 Work Description

Senoark is a digital marketing and business consultant agency, specializing in strategies for both corporate and SME to maximize growth and increase sales. By analyzing website traffics and social media performance data, they continually implement solutions to get the best quality leads and turn them into clients.

This system can be divided into two parts:

On one side, admins will monitor the idea pitches, upload the latest career opportunities, review the CVs uploaded, add users with specific authorization to maintain the site.

On the other side, the users will provide their ideas for incubation privately.

There is also a super user who will be able to monitor everything.

Now talking about the blogs, every business should have their own blogs so that people can see what they have to offer. Our system has a blog writing system. Users who have the access can write blogs and publish them on the website. Admin can manage these blogs as well. These can be published with category and users can search by category for reading the blogs.

Our website is totally dynamic. Everything is controlled by the admin from the admin panel. It is very easy to use. We have tried to make it as simple as we can so that users do not face any problem while running it. In future we have plans to add more features to optimize our work.

5.2 System Analysis

To identify the objectives of a system, system analysis is conducted for the purpose of studying it and its parts. This is a problem solving process that determines how efficiently the system is running to accomplish their purposes. This contains some phases like planning, analysis, design, deployment and maintenance. It is a process of interpret-

ting and collecting facts, finding out the problems and splitting up the system into its components.

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, Tab	All Browsers	MYSQL	WAN
SIGNUP/ SIGNIN	Admin	n/a	Pc, Laptop, Smartphone, Tab	All Browsers	MYSQL	WAN
ADMIN DASHBOARD	Admin	n/a	Pc, Laptop, Smartphone, Tab	All Browsers	MYSQL	WAN
STARTUP INCUBATOR PAGE	All Users	n/a	Pc, Laptop, Smartphone, Tab	All Browsers	MYSQL	WAN
SENOARK DIGITAL PAGE	All Users	n/a	Pc, Laptop, Smartphone, Tab	All Browsers	MYSQL	WAN
CONCERNS PAGE	All Users	n/a	Pc, Laptop, Smartphone, Tab	All Browsers	MYSQL	WAN
WHO WE ARE PAGE	All Users	n/a	Pc, Laptop, Smartphone, Tab	All Browsers	MYSQL	WAN
CONTACT PAGE	All Users	n/a	Pc, Laptop, Smartphone, Tab	All Browsers	MYSQL	WAN
CAREER PAGE	All Users	n/a	Pc, Laptop, Smartphone, Tab	All Browsers	MYSQL	WAN
FORM SUBMISSION PAGE	All Users	n/a	Pc, Laptop, Smartphone, Tab	All Browsers	MYSQL	WAN

Table 5.1: Six Element Analysis

5.2.2 Feasibility Analysis

The analysis of a proposed project is to determine whether it is feasible and should go ahead is called feasibility analysis. Confirmation of design, plan and strategy is the main priority of this analysis. This can be used to validate assumptions, constraints, decisions and approaches. There are some main parts of feasibility analysis. [2]

They are -

1) Technical Feasibility: In technical feasibility, evaluation of the software, hardware and the other technical requirements of the proposed system are performed. This evaluates the details of how we intend to deliver a product or service to customers. Labor, think materials, transportation, where our business will be located, and the technology that will be necessary to bring all this together.

Senoark has been developed using the Reactjs framework with ASP.net Core. The use of typescript components from the latest 17.0.1 version of Reactjs and the regular HTML, CSS and JS helped to build a much efficient and faster website. Moreover, these technologies are very popular in the modern industry and are being used thoroughly with a growing community.

2) Operational Feasibility: Operational feasibility is a measure of how well a proposed system solves the problems and satisfies the system requirements identified during the scope definition and problem analysis phase. It is dependant on human resources available for the project and involves projecting whether the system will be used if it is developed and implemented.

Senoark has been developed in such a way that it can be conducted very easily. People will accept it without any doubt. It is a well planned system. People of all ages will be able to use it. It reduces physical and technical hardships. Users need not have a lot of technical knowledge to run this system. Every instruction is very clear to the users. We hope this system will be able to fulfill the requirements of the users.

3) Economic Feasibility: In economic feasibility, costs and benefits are identified. It determines cash flow and assigns values to costs and benefits. Development costs and production costs are included in economic feasibility.

Our system is nothing but a product. If this system can reach the users it will definitely bring benefits. On one hand it will reduce the costs of wasting pens and papers. On the other hand benefits will come depending on the uses.

5.2.3 Problem Solution Analysis

Problems:

Every work has some problems. Our website may also create some problems like -

- 1. Eye strain:** As harmful radiations are emitted from the PC, Laptop and Mobile screens then it may cause some eye strain problems.
- 2. Internet:** As this system will require internet connection once it has been launched.
- 3. Load shedding:** If anyone uses desktop and Wifi routers then load shedding may create problems while using this system.
- 4. Pitch Tracking:** How does a user know if their incubation idea is still under process or even has been viewed?
- 5. Page-Loading:** The traditional html/css/js took much time to load and had C grade rating when tested.

Solutions:

While there are problems, there are solutions too. Now I am going to discuss about the solutions of the problems mentioned above -

1. Eye strain solution: Brightness of the device should be maintained while using this system.

2. Solution to the internet problem: Nowadays internet data is not so costly that we cannot afford that. Our system does not consume a lot of data.

3. Load shedding solution: As this system can be run from laptop and mobile that do not require continuous electricity connection, users can use them very easily.

4. Pitch Tracking: Slowly but surely, our developers are working to bring on the tracking services for users to track their submitted proposals. **5. Page-Loading:** Now, the integration to react library has helped the website into working smoothly and running faster with a grade A test rating.

5.2.4 Effect and Constraints Analysis

This Website will currently direct all the incoming visitors to look into the core depths of the Company, kick-start their ideas by submitting their pitch and browse career opportunities.

As discussed earlier, our system has some constraints. We are planning to overcome those constraints through our latest releases to the website which would see itself moving towards into being a Web Application.

5.3 System Design

5.3.1 Rich Picture

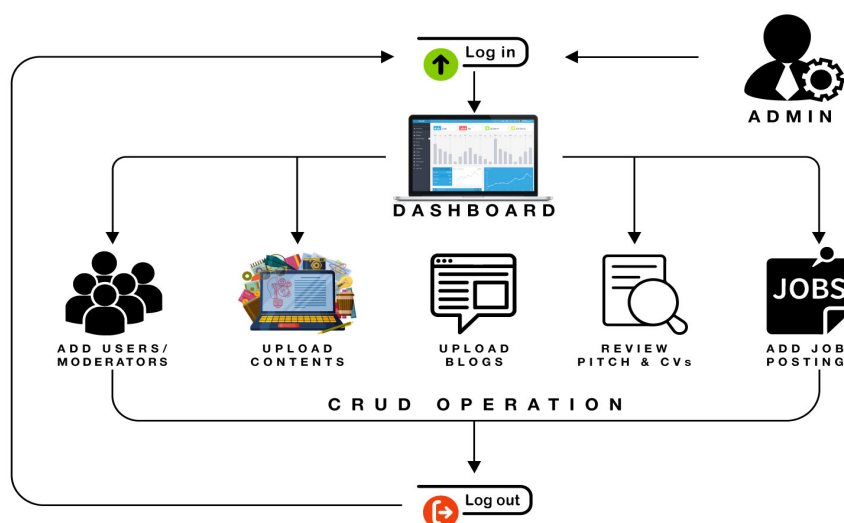


Figure 5.1: Admin Module Rich Picture

Here, there are two types of admin. The Super Admin(1) who can manage all of the things. The other type of Admin(2) Logs in to the dashboard and has access to the moderators among the users only; along with the rest of the services. These operations are carried through our Restful CRUD APIs that we have made specifically for this Website to handle data on the go.

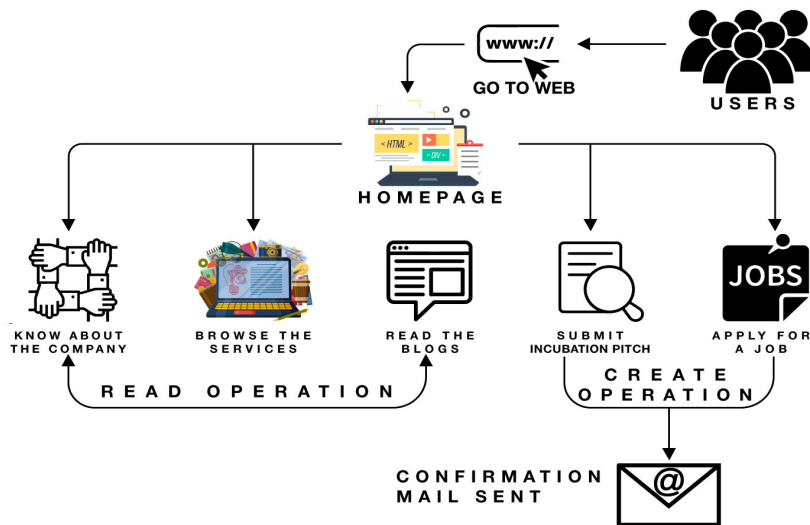


Figure 5.2: User Module Rich Picture

Here, when a user visits the website (Senoark), s/he is able to see all information related to the company. The user/s can read the blogs and other contents but cannot update them. The Users can create a form and apply for jobs but cannot update their submission.

5.3.2 UML Diagrams

Systems should have different applications for administrators and for common users. It is recommended that website administration applications should only be accessible from through some management networks. Except for the Super Admin, some part of the administrative interfaces should be also available to the moderators, as they need to be able to assist visiting users with issues like internet traffic, pitch and CV submissions. Moderators use a subset of the components available to the Super Admin. [3]

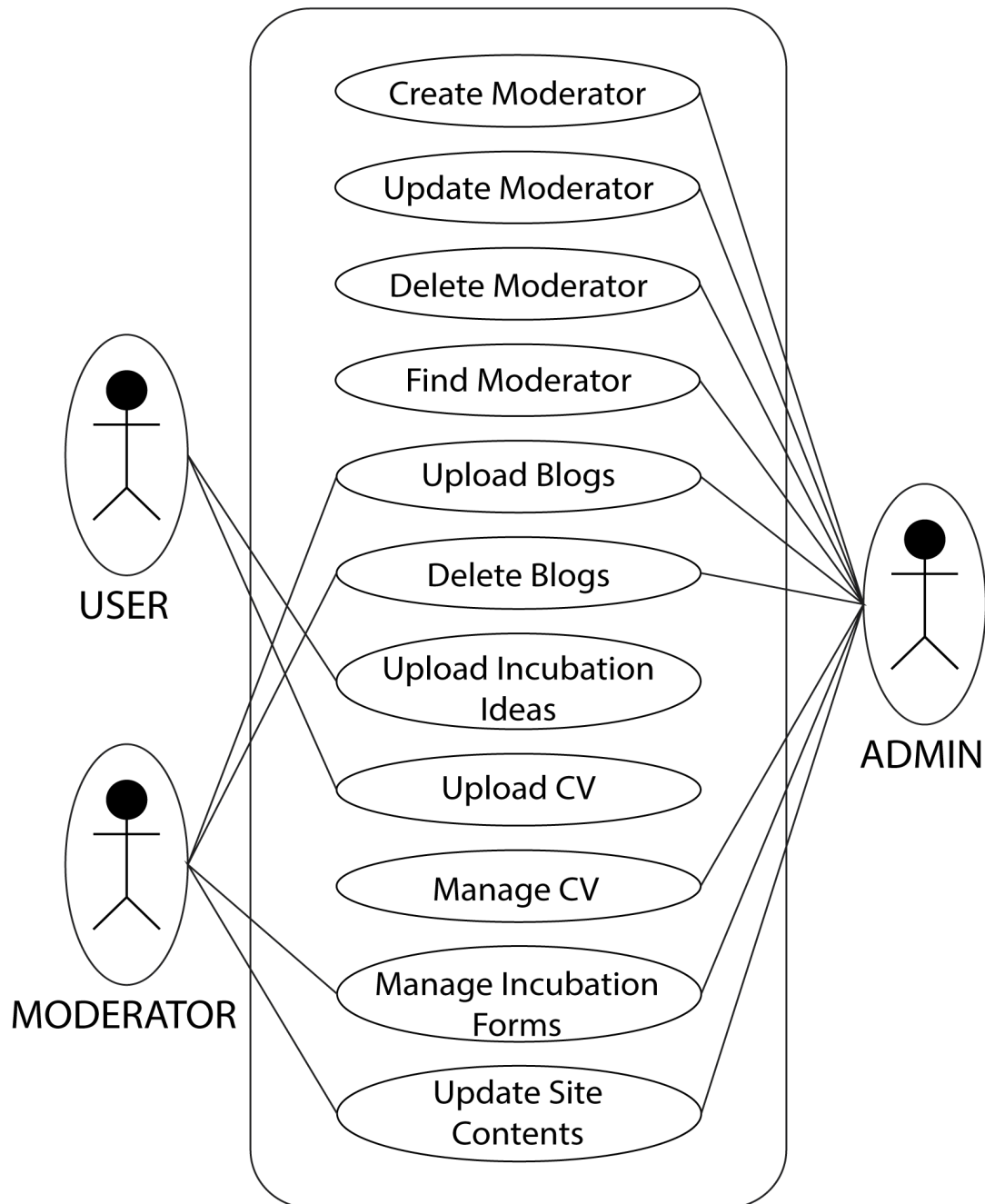


Figure 5.3: Case Diagram

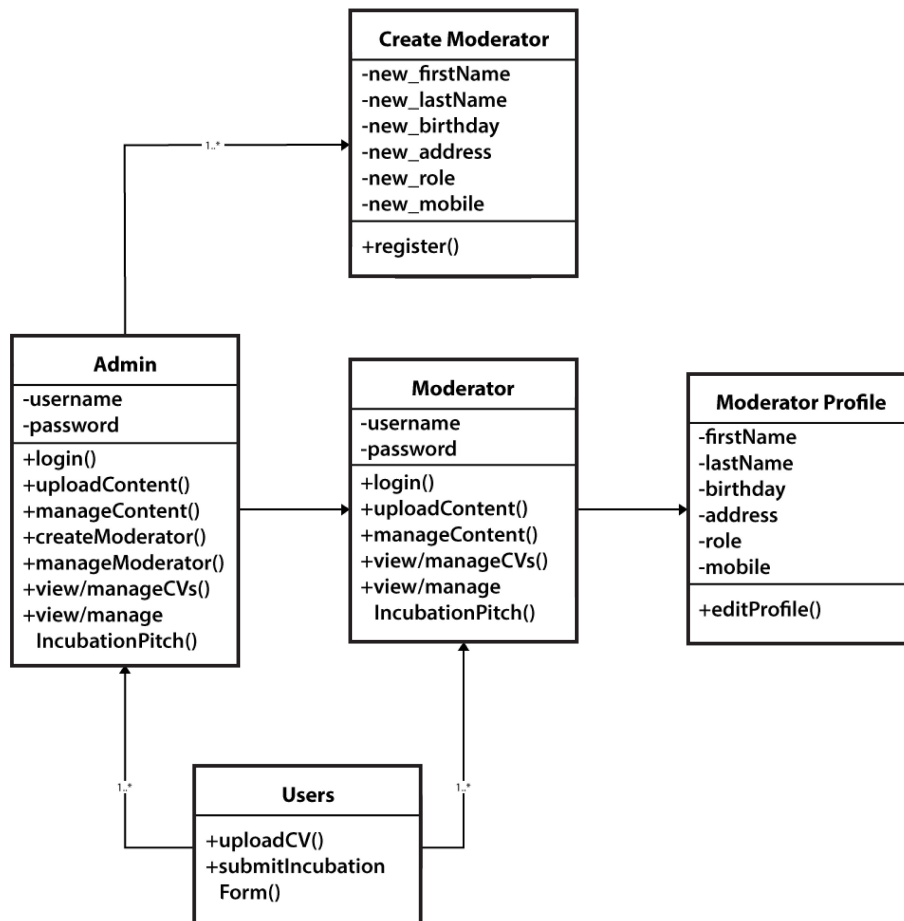


Figure 5.4: Class Diagram

5.3.3 Functional and Non-Functional Requirements

Functional Requirements

Functional requirements define the basic system behavior. This includes what the system does or can not do and can be thought of in terms of how the system responds to given inputs. Features that allow the system to function as it was intended. If the functional requirements are not met, the system will not work. Functional requirements are product features and focus on user requirements.

FUNCTIONS	INPUT	PROCESS	OUTPUT
Visit Website	Enter Website Domain	Load Data from Server & Database	Show Website with Dynamic Data
Submit Incubation Pitch (by Users)	Fill form & Upload Presentation	Form Process into Database	Successful Submission Confirmation Message
Submit CV (by Users)	Fill Questionnaires & Upload CV	Form Process into Database	Successful Submission Confirmation Message
Write Blogs	Input Admin/Moderator Username & Password	Match with registered Username & Password	Dashboard appears to write blogs
Manage Contents	Input Admin/Moderator Username & Password	Match with registered Username & Password	Dashboard appears to upload/manage contents
Manage Moderators (by Admin)	Input Admin Username & Password	Match with registered Username & Password	Dashboard appears to create/delete moderators

Table 5.2: Functional Requirement

Non-Functional Requirements

Non functional requirement specifies the quality attribute of a software system or a project. The software system is judged based on the responsiveness, usability, security, portability and the other non-functional standards that are critical to the success of the software system.[4]

This non-functional requirement allows us to impose constraints on the design of the system across the various agile backlogs.

- **Performance and Scalability:** This defines how fast the system returns results and how much it performs with the change of higher workloads. After launching our system we will test the system in GTMetrix and google page speed to see the speed and response. We will work on the optimization as per our plans. As this system may be used by many users at a time, so there is a possibility that the website might slow down due to traffic. Considering all these things we are planning to improve the speed of the system.

- **Portability and compatibility:** This determines which operating systems, browsers, hardware and their versions does the website run on and whether it conflicts with other processes within these environments.

- **Security:** How are the system and its data protected against attacks? In our system we have validated everything so that spam codes can not harm our system.

- **Usability:** It means how easy it is for our users to use the system. Senoark has been built in such a way that every process connects with another process with very less dependencies on the backend side. Users will be able to run the system very easily.

5.4 Product Features

Here I have included all the features a user will receive from this project.

5.4.1 Input and Output

Startup Incubation Page: The users who want to kickstart their ideas can fill this form for Senoark to review and process.

Submit Your Pitch

First name

Last name

Enter your email

Enter your phone number

What are you solving?

Why do we need this product?

Choose file No file chosen

SUBMIT

Start-up Incubator

SENOARK

f in t @

Career Page: The users who want to join Senoark for any job openings can fill this form for Senoark to review and process.

Upload CV

Choose file No file chosen

Write a short summary about yourself.

Why did you choose this line of work?

What are your expectations from your employers overall?

If you had to solve a worldly problem in your line of work. How would you solve it?

Which programming language do you prefer and why?

SUBMIT

APPLY

List of jobs

Job Title

Admin/Moderator Login Page: Admins and Moderators will be able to login through this page.

SENOARK WEBSITE MANAGER

USERNAME

PASSWORD

LOGIN

Admin/Moderator Dashboard: This is the view of the Super-Admin/Admin dashboard.

Note: The Moderator dashboard is the same except that he/she would not be able to create or manage other moderators

SENOARK WEBSITE MANAGER

[VISIT SITE](#)
[LOGOUT](#)

SUPER ADMIN

MUIZ SHAHABUDDIN

[EDIT PROFILE](#)

[CREATE MODERATORS](#)

[MANAGE MODERATORS](#)

[POST NEW JOB OPENING](#)

[EDIT SITE CONTENTS](#)

[UPLOAD BLOGS](#)

STARTUP INCUBATOR PITCH PROPOSALS

1	Shouvon Dash	
2	Ragib Rahman	
3	Ashiqur Ibn Hasan	
4	Faisal Alam	
5	Joheb Hassan	
6	Rohan Ahmed	

[VIEW FULL PAGE](#)

CV SUBMISSION FOR RECRUITMENT

1	Shouvon Dash	
2	Ragib Rahman	
3	Ashiqur Ibn Hasan	
4	Faisal Alam	
5	Joheb Hassan	
6	Rohan Ahmed	

[VIEW FULL PAGE](#)

Creating a new job post: This is the view of the form that is to be filled to create a new job post.

The screenshot shows the 'SUPER ADMIN' dashboard of the 'SENOARK WEBSITE MANAGER'. On the left sidebar, there is a user profile for 'MUIZ SHAHABUDDIN' with a circular profile picture and three buttons: 'EDIT PROFILE', 'CREATE MODERATORS', and 'MANAGE MODERATORS'. The main content area is titled 'SUPER ADMIN' and contains a form for creating a new job post. The form includes a small '+' icon at the top left, followed by a 'JOB TITLE' input field, a large 'JOB DESCRIPTION' text area, a 'SALARY' input field with a 'TK' unit selector, and two radio buttons for 'PART TIME' and 'FULL TIME'. At the bottom of the form is a red 'POST' button.

Creating a new blog post: This is the view of the form that is to be filled to create a new blog post.

The screenshot shows the 'SUPER ADMIN' dashboard of the 'SENOARK WEBSITE MANAGER'. On the left sidebar, there is a user profile for 'MUIZ SHAHABUDDIN' with a circular profile picture and three buttons: 'EDIT PROFILE', 'CREATE MODERATORS', and 'MANAGE MODERATORS'. The main content area is titled 'SUPER ADMIN' and contains a form for creating a new blog post. The form includes a small '+' icon at the top left, followed by a 'BLOG TITLE' input field, a large 'ARTICLE DESCRIPTION' text area, and an 'UPLOAD IMAGE' button with an upward arrow icon. At the bottom of the form is a red 'POST' button.

Creating a new Moderator: This is the view of the form that is to be filled to create a new moderator

Note: Only the Super-Admin/Admin has access to this view.

SENOARK WEBSITE MANAGER

VISIT SITE LOGOUT

SUPER ADMIN

MUIZ SHAHABUDDIN

EDIT PROFILE

CREATE MODERATORS

MANAGE MODERATORS

UPLOAD IMAGE

FIRST NAME LAST NAME

Moderator Username

Moderator Password

ROLE

NID NUMBER

POST

Editing Contents: This is the view of the page that helps to manage all the contents

SENOARK WEBSITE MANAGER

VISIT SITE LOGOUT

SUPER ADMIN

MUIZ SHAHABUDDIN

EDIT PROFILE

CREATE MODERATORS

MANAGE MODERATORS

BLOGS	
1	ZULKER NIEN
2	ZULKER NIEN
3	MUIZ SHAHABUDDIN
4	MALIHA RAHHAM
VIEW ALL	

STARTUP INCUBATION	
1	SHOUVON DASH
2	RAGIB RAHMAN
3	ASHIQUR IBN HASAN
4	FAISAL ALAM
5	JOHEB HASSAN
6	ROHAN AHMED
7	RAIHAN CHOWDHURY
8	DEWAN OSMAN
9	REZA ALI
10	SHUBORNO ISLAM
11	MAHER KHAN
VIEW ALL	

JOB RECRUITMENT	
1	DILIP KUMAR DAS
2	NAWSHIN ARA
3	SALIM CHOWDHURY
4	SHIKHTO PAYEL
VIEW ALL	

5.4.2 Architecture

To develop this project, we have used ASP .net Core with Reactjs which is a powerful .net frame-work. It is based on the MVC pattern. The model contains a function which is used to insert, retrieve and update information from the database. The view is made with Reactjs which 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. When he performs an activity the request is received by the controller which then works as an intermediary between model and view. [5]

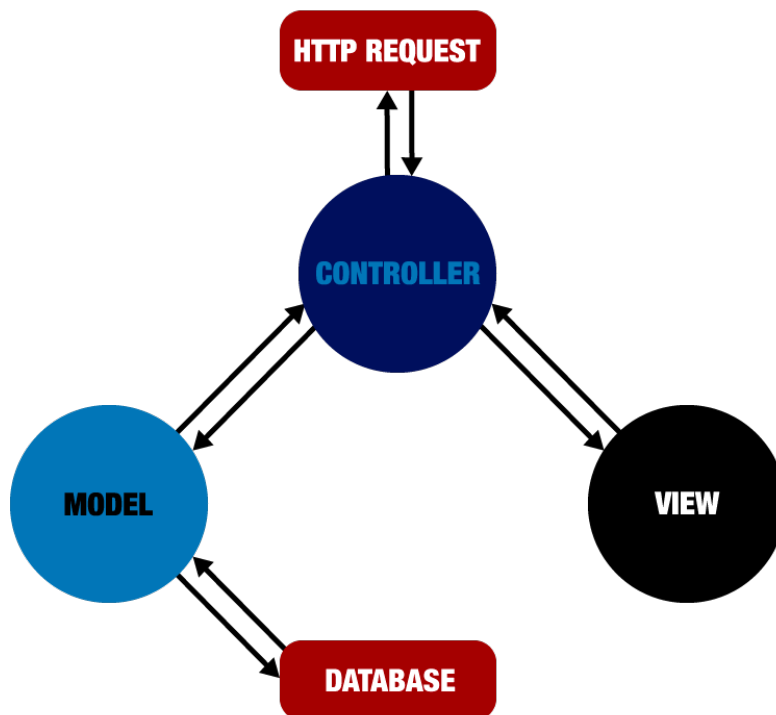


Figure 5.5: System Architecture [1]

Chapter 6

Results & Analysis

Black box testing: It is also known as Behavioural Testing, is a software testing method in which the internal structure/design/implementation of the item being tested is not known to the tester. These tests can be functional or non-functional, though usually functional.

White box testing: It is software testing technique in which internal structure, design and coding of software are tested to verify flow of input-output and to improve design, usability and security. In white box testing, code is visible to testers so it is also called Clear box testing, Open box testing, Transparent box testing, Code-based testing and Glass box testing. [6]

In this table below, I have given the results of tests that I have worked on. Each task performs successfully if it meets the conditions that are provided. Initially, some of these tasks had some bugs but these were fixed after several tests. All these tasks are tested on local hosting. Some of these tasks have some shortcomings which are not implemented yet have been mentioned above. These will be worked later on. As these tasks do not show any bugs or errors, so the error rate has been stated as zero.

Back End development is completed and changes are being made in Front End. Apart from the development team, the client has also tested some of the tasks that were implemented before. The rest will be shown at the next meeting. The tasks that I have mentioned above have also been tested live and show the same results. After the project is completed and before going live, it will be tested again and changes will be made if required. [7]

TASK	DESCRIPTION	CONDITIONS	SUCCESS RATE	SHORTCOMINGS	WORKING (YES/NO)
Submit Startup Incubation Form	User needs to fill up the form & upload a presentation file	User needs to have a computer, laptop, smartphone or tab connected to the internet	100%	After the submit button is clicked, the user cannot review the form. Only a confirmation message to his/her mail is sent.	YES
Submit Job Posting Form	User needs to fill up the form & upload his/her CV	User needs to have a computer, laptop, smartphone or tab connected to the internet	100%	After the submit button is clicked, the user cannot review the form. Only a confirmation message to his/her mail is sent.	YES

Table 6.1: Result Table for Users

TASK	DESCRIPTION	CONDITIONS	SUCCESS RATE	SHORTCOMINGS	WORKING (YES/NO)
Create Moderator	Admin can create a profile	Admin needs to have a computer, laptop, smartphone or tab connected to the internet	100%	Database has not been allocated	NO
Delete Moderator	Admin can delete a profile	Admin needs to have a computer, laptop, smartphone or tab connected to the internet	100%	Database has not been allocated	NO
Create Blog Posts	Admin can create a blog post	Admin needs to have a computer, laptop, smartphone or tab connected to the internet	100%	Database has not been allocated	NO
Update Blog Posts	Admin can update a blog post	Admin needs to have a computer, laptop, smartphone or tab connected to the internet	100%	Database has not been allocated	NO
Delete Blog Posts	Admin can delete a blog post	Admin needs to have a computer, laptop, smartphone or tab connected to the internet	100%	Database has not been allocated	NO
Manage Incubation Submissions	Admin can view and delete a submission	Admin needs to have a computer, laptop, smartphone or tab connected to the internet	100%	Database has not been allocated	NO
Manage Job Recruitment Submissions	Admin can view and delete a submission	Admin needs to have a computer, laptop, smartphone or tab connected to the internet	100%	Database has not been allocated	NO

Table 6.2: Result Table for Admins

TASK	DESCRIPTION	CONDITIONS	SUCCESS RATE	SHORTCOMINGS	WORKING (YES/NO)
Create Blog Posts	Moderators can create a blog post	Moderators need to have a computer, laptop, smartphone or tab connected to the internet	100%	Database has not been allocated	NO
Update Blog Posts	Moderators can update a blog post	Moderators need to have a computer, laptop, smartphone or tab connected to the internet	100%	Database has not been allocated	NO
Delete Blog Posts	Moderators can delete a blog post	Moderators need to have a computer, laptop, smartphone or tab connected to the internet	100%	Database has not been allocated	NO
Manage Incubation Submissions	Moderators can view and delete a submission	Moderators need to have a computer, laptop, smartphone or tab connected to the internet	100%	Database has not been allocated	NO
Manage Job Recruitment Submissions	Moderators can view and delete a submission	Moderators need to have a computer, laptop, smartphone or tab connected to the internet	100%	Database has not been allocated	NO

Table 6.3: Result Table for Moderators

Chapter 7

Project as Engineering Problem Analysis

7.1 Sustainability of the Project/Work

The website has been made sustainable by making these small yet significant changes.

- 1. Image optimization to reduce file size:** The size of the images and resolution has been kept fixed so that it does not burden load time and energy consumption. Moreover, the maximum number of images per blog has also been kept fixed.
- 2. Delete unnecessary data:** We plan to delete unnecessary data periodically once a year so that we can free up space of our database. These may include users who are inactive for more than a year, categories, unused themes, etc.
- 3. Site Navigation:** We have kept the website as simple as possible so that users do not find it difficult to use the website. So they do not need to click around the website and easily find the required information.

7.2 Social and Environmental Effects and Analysis

- 1. Social Effect:** A lot of people have many million dollar ideas but they do not know who to go to, from where to start, how to implement. The startup incubator gives them an opportunity to light the bulb and bring their ideas to reality. Pointing them to a direction and kickstarting their idea.
- 2. Environment Effect:** With growing people and growing businesses means growth of this company. Thus, the growth of the user is directly proportional to the booming of the company and it goes both ways. Cooperation from both the ends would be a key factor in this case. So the company relies on the environment for its betterment.

7.3 Addressing Ethics and Ethical Issues

People around the world have got a different set of ethics. Problems might arise when one's ethics are pointed wrong by others which may cause some kind of unwanted uneasiness. Other issues may arise if a person copies other's idea without the person's permission and does not give credit to the person. Thirdly, a person may have issue with one of the blogs posted which would cause a problem if a copyright issue is imposed. All these issues will be monitored by authorized Admins so that ethical issues can be avoided. The company/superadmin also plans to provide ethical guidelines to the moderators which will include copyright and credit, validation of post, spam content, deactivation of the moderator if required so that all the issues mentioned can be handled.

Chapter 8

Future Work & Conclusion

8.1 Future Works

Here are some future work for this website -

- User profiles
- Chat Support
- Tracking service to check progress of submission
- Monetize the whole website

8.2 Conclusion

I have given a detailed information about the website in this report. The background, benefits, how it works, the methodology used, results, etc. This project consists of front-end (Ui design, Web Design, html, css, scss, js, ts) and back-end with ASP.net Core 3.0 needed for Startup Incubation, Job Posting, and Admin/Moderator Dashboard that I have worked on during my Internship program.

Admin has the option to post blogs, create moderators, review CVs and Incubation submissions. Admin also has the option to delete all these contents of a user or moderator if he/she thinks is an outdated post.

The APIs have been made and the final integration of the hooks are on the process. There are multiple projects on hand and from the client side, we are waiting as long as it takes to receive the hosting platform. The next remaining tasks would be to integrate the database, install the hooks into the front-end which would connect to the back-end and eventually deploy the project. Currently, the project is under the final QA testing before the deployment.

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