An Undergraduate Internship on Web Design and Development in Information Management

By

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Summer, 2021

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

Department of Computer Science & Engineering

Independent University, Bangladesh

Attestation

This is to certify that the report titled "FISHERIES" was completed by Towfika Bintay shafiq (1720727) submitted in partial fulfillment of the requirement for the Degree of Computer Science from Independent University, Bangladesh (IUB). It has been completed under the guidance of **Mohammad Noor Nabi** (Internal Supervisor) and Mohammed Ibrahim Islam (External Supervisor). I also certify that all my work is original and has not been submitted earlier to this university or any other institution. All the sources of information used in this Project Report has been duly acknowledged in it.

Signature	Date
Write Your Name Here	
Name	

Acknowledgement

First of all, I would like to acknowledge “The Almighty Allah”, the supreme authority of the universe. This report is a product of hard study; the query involves many people’s considerable attention. Without their assistance, suggestion, direction, and co-operation preparation of this report would have been impossible. So, I want to pay my gratitude to them.

I want to express my gratitude mainly to my supervisor **Mohammad Noor Nabi**, Department of Computer Science Engineering, Independent University Bangladesh, who helped me from the very beginning of my internship.I want to express my heartfelt thanks to him. I have a deep respect for the management and continuous supervision of the Independent University of Bangladesh (IUB) and the distribution of important data related to the courses. I am very grateful to my external supervisor, Mohammad Ibrahim Islam, for his guidance and support throughout my internship and project. Maybe I want to express my special gratitude and gratitude to the CDPRC developers and staff to, and thank for giving so much care and time guidance to my internship.I would also like to thank my parents. They not only support me financially, but they have always believed in me and have always inspired me to achieve what I have achieved.

Letter of Transmittal

September 12, 2021
Mohammad Noor Nabi
School of Computer Science and Engineering
Independent University Bangladesh.
Subject: Submission of Internship Report.

Dear Sir,
It is a great pleasure to submit my report on my Internship at CDPRC. I have tried to narrate my project works, achievements, and experiences in this report. All the works presented here are done with utmost sincerity and honesty. During the internship period, I have served in CDPRC for three months where I have not only gained real-life work experience but understood the process of the department and its various aspects. This report includes a detailed review of the office as well as the functionalities of the department. As a document of my effort during the internship periods I have conducted all the project works that I have done during my internship periods, especially their requirement, functionalities, and technical specifications. I pray and hope this report will be quite interesting and fulfill your expectations. I have tried my best to avoid my deficiencies and hope that my report will satisfy you. I also would like to thank you again for giving me the opportunity to submit this report.

Sincerely,
Towfika Bintay Shafiq,
Id – 1720727

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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Convener

Abstract

This report describes my whole internship journey. While doing my internship I was at the Backend Technology Development team of the CDPRC.I was assigned to their running project 'FISHERIES'. In this project main objective is to automate the data collection process, reduce hassles for the users as they do all these manually which is time-consuming. So, here I got to learn Javascript and React as our developers planned to use Javascript and React framework. They also allowed me to make schema and SQL files for the database we showed in the frontend dropbox. I was also doing QA of the project when it got fully structured. After listing bugs they also let me learn how to fix some of those issues. After doing User Interface I was shifted to work in the admin panel where our registered forms will be shown and will get accepted from the admin. Here I got to work with ASP.net MVC crud operation using entity framework. Before appointing me to this part they suggested I make a demo project. So, I made a project and gave them a demo and after that, they appointed me in the admin dashboard structure where we registered admin id and password and set the claims and authorized the user to get entry and check the registered user's list, accept or deny an application, view pending list, trigger verification.

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Chapter 1

Introduction

1.1 Overview/Background of the Work

You cannot limit the development of software development technology. It is unstoppable and continues to grow in the software development industry.
There have been cases where it took 15 minutes to make a call outside, but now it only takes a second to call anyone in the world. The latest technology develops at this speed. There is a lot of development work in the field of software as it gradually becomes the backbone of this computer world.
If you follow the news about software development and the latest trends in technology, you may also be interested in the future of such new and upcoming technologies. In Bangladesh, all companies are more likely to build their websites for highly popular business purposes and are a good sign that they have gone digital. So, when building a suitable website, there is a frontend and a backend to make them work flawlessly. The frontend is what users show in the interface, and the backend is what actions are performed behind the screen, what data is stored on the server, and how to manage all the data for user actions. So, there are many frameworks and languages when creating a user interface or front-end.In my project we used javascript, response, CSS html, bootstrap, ASP.net, node js. JavaScript is the most popular programming language in the world. JavaScript is an online programming language. JavaScript is easy to learn.
JavaScript is one of three languages that all web developers must learn:
1. HTML for defining web content
2. CSS for defining the layout of a web page
3. JavaScript for programming web behavior

1.2 Objectives

1.User Friendly Interface: To build a user-friendly website and easy to use. All the content in the website is easy to find. So, UI should be clean and all the contents or category are well constructed and easy to find in the website.
2.Easy to Maintenance: Website should be easy to maintenance if client want to add some new features those should be easy to implement in our website.
3.Dynamic Content Load: Website should be control through the admin panel. And all the contents and the post in the website have to be dynamic and admin have full control over it.
4.lightweight Website: Lightweight website and easy to loading no external time needed for loading the website.

1.3 Scopes

Registration form : Users will get to register using their NID/Birth Certificate and Phone number.
Personal information : User will input their personal information as required to get registered.
Status : User can check status of the user registered form if it got accepted or got rejected.
Manual : To instruct new users what they need to get registration process done.
Inquiry : Users may have query about the system.
Translation(EN/BN) : User will be able to register both in Bangla/English.

Chapter 2

Literature Review

2.1 Relationship with Undergraduate Studies

1.Database Management (CSE303): While doing this course I have learnt that Database management allows a person to organize, store and retrieve data from a computer. In DBMS generally manipulates the data itself, the data format, field names, record structure and file structure. It also defines rules to validate and manipulate this data. Doing this course got to learn real-world entity which is more realistic and uses real-world entities to design its architecture. Relation-based tables which allows entities and relations among them to form tables.
A Database schema is the skeleton structure that represents the logical view of the entire database. It defines how the data is organized and how the relations among them are associated. I also got to learn about SQL, SQL is the most common language used by Database. In my workplace it helped me a lot to understand while designing Database of my project.
2.Object Oriented Programming(CSE213): In this course got a widely used concept to write powerful applications.Got to write applications to process data, among a range of other things.Discovered the basics of object-oriented programming to create a class ,Instantiating objects,Adding attributes to a class ,Defining methods within a class,Passing arguments to methods etc.
3.System Analysis and Design (CSE307): In this course I have learnt while making a project we need to plan, analyze, design, deployment, and do maintenance. Analysis specifies what the system should do and System design focuses on how to accomplish the objective of the system. So, in my workplace this course backed-up me to do such research and development for the project I am working.
4.Web Application and Design (CSE309): This is one of the most important courses which is helping me to design and develop a website. In this course I learned about HTML, CSS, JAVASCRIPT, BOOTSTRAP, JQUERY. This is helping me to design my project.

2.2 Related works

1.While doing system analysis and design i made a project which helped me to design and implement in my field work.i made a project which was named "freedom not feardom" for working women for their safety and security app.
2.Doing (OOP) i made a project in education board (dhaka).
3.In Web Application and Design made website of weather-forecasting, Registration system.
4.In Database Management made an project where i made a database management system to store data and show data.

Chapter 3

Project Management & Financing

3.1 Work Breakdown Structure

When developers need to add a huge project, they have to breakdown all the task in different phase to simplify the work. Work breakdown structure (WBS) could even be a hierarchical tree structure that outlines a project and breaks it down into smaller portions. The goal of a WBS is to form an outsized project more manageable. Breaking it down into smaller chunks means work are often done simultaneously by different team members which leads to better team productivity.

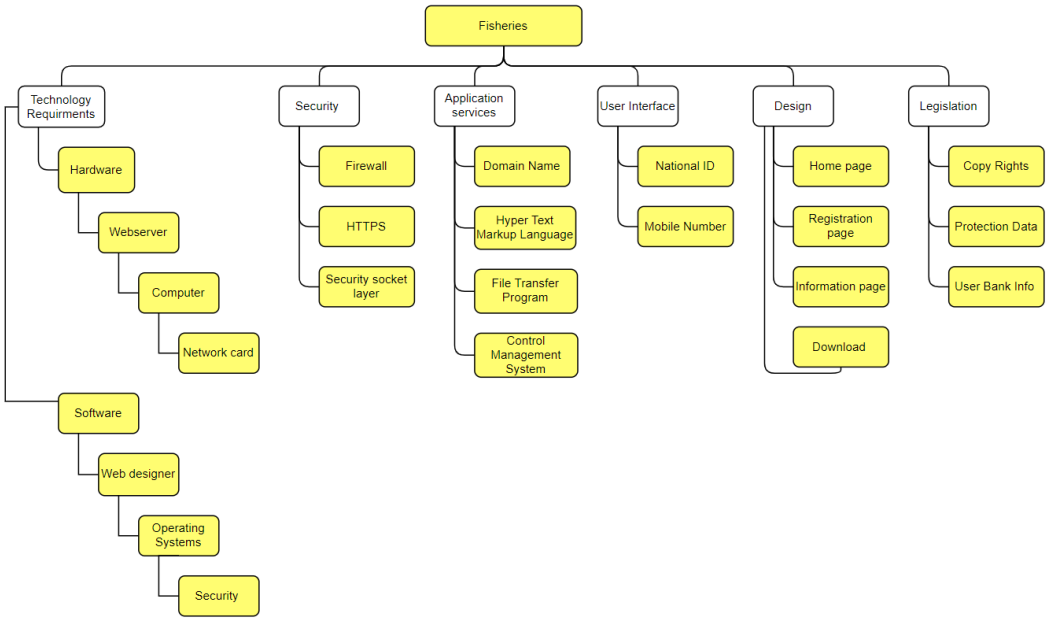


Figure 3.1: Work Breakdown Structure Of Fisheries

3.2 Process/Activity wise Time Distribution

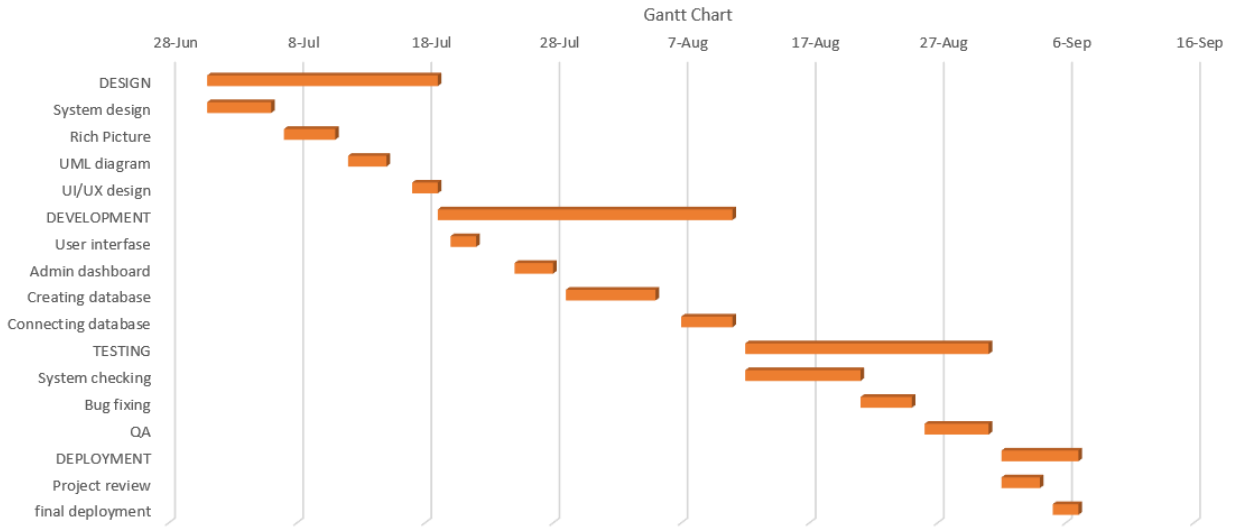
The entire web development process is proper timely wise distributed. It is very important to breakdown the activity and also give a time limit for it. It's increase the client satisfaction and also make trust worthy that we ensure them that we have ability to deliver the process in a proper time management. If a project take long period of time it's dissatisfy our client and possibility to loose our client. And the time distribution also help developers to make complete their task in a certain period of time limit. So here given the Time distribution Chart :

Activity	Days	Work Percentage
Prototype Design	10	10%
Project Breakdown & System Understanding	5	10%
Development	15	30%
Testing	5	30%
Frontend Developer	10	10%
Backend Developer	10	10%
Error and Bug fixing	5	10%
Total	60	100%

Figure 3.2: Time Distribution Table

3.3 Gantt Chart

A Gantt chart is a project management tool assisting in the planning and scheduling of projects of all sizes, although they are particularly useful for simplifying complex projects. Project management timelines and tasks are converted into a horizontal bar chart, showing start and end dates, as well as dependencies, scheduling and deadlines, including how much of the task is completed per stage and who is the task owner. This is useful to keep tasks on track when there is a large team and multiple stakeholders when the scope changes. Here given the benefit of using gantt chart : 1. A visual display of the whole project, 2. Timelines and deadlines of all tasks, 3. Relationships and dependencies between the various activities of project phases. Here Given Our Project Gantt Chart :



	final deployment	Project review	DEPLOYMENT	QA	Bug fixing	System checking	TESTING	Connecting database	Creating database	Admin dashboard	User interfase	DEVELOPMENT	UI/UX design	UML diagram	Rich Picture	System design	DESIGN
Start date	5-Sep	1-Sep	1-Sep	26-Aug	21-Aug	12-Aug	12-Aug	7-Aug	29-Jul	25-Jul	20-Jul	19-Jul	17-Jul	12-Jul	7-Jul	1-Jul	1-Jul
Duration	2	3	6	5	4	9	19	4	7	3	2	23	2	3	4	5	18

Figure 3.3: Gantt Chart

3.4 Process/Activity wise Resource Allocation

SL	Team Member	Pax	Approx. Salary
1	Project Head (Senior full Stack Developer)	1	45,000/-
2	UI UX Designer	1	30,000/-
3	Sr System Analyst	1	30,000/-
4	Business Analyst	1	25,000/-
5	Marketing Team	3	35,000/-
6	Trainee Full Stack Developer	5	20,000/-

Figure 3.4: Web Development Team Salary

3.5 Estimated Costing

SL no.	Work Distribution	Costing
1	UI/UX Development	45,000/-
2	System Analyst	60,000/-
3	Development team	1,50,000/-
4	Business Analyst	60,000
5	Marketing Team	1,05,000/-
	TOTAL	4,20,000/-

Figure 3.5: Estimated cost

Chapter 4

Methodology

A software development methodology is a collection of procedures, techniques, tools, and documentation aids which will help the systems developers in their efforts to implement a new information system. There are a number of software development methodology each of which are adopted based on a number of factors relating to the project. Time, cost, incorporation of requirement changes during the development process, system complexity, communication between customers and developers, software criticality, size of the development team. These generic models are not definitive descriptions of software processes. Rather, they are abstractions of the process that can be used to explain different approaches to software development. You can think of them as process frameworks that may be extended and adapted to create more specific software engineering processes. We were working in Agile methodology this methodology is one of the simplest and effective processes to turn a vision for a business need into software solutions. Agile is a term used to describe software development approaches that employ continual planning, learning, improvement, team collaboration, evolutionary development, and early delivery. It encourages flexible responses to change.
[1]

Figure 4.1: Agile Methodology

Chapter 5

Body of the Project

5.1 Work Description

Fisheries is a project where we will be collecting data of Fishermans. Fish and fisheries are an integral part of Bangladesh and have earned its importance due to immense export and revenue potential. The results showed that fish production has increased in Bangladesh during the last two decades, starting from 17.81 lakh metric tons in 2000–01 and reaching up to 41.34 lakh metric tons in 2016–17. Due to the gradual decline in capture fishery, a significant percentage of total production comes from aquaculture. As our government is also concerned about fisheries site so we decided to collect information of our countries Fishermans and help them to get their livelihood better and in a proper way from government side. Here our goal is to automate data collecting process and reduce hassle for the users and it will also help us to keep data of all the Fishermans of our country. Here every registered fisherman will be benefited as they will get full funding support officially from the government side. Not only funding also trainings and fish growth food that might help them to grow their farms. Here we kept user friendly interface where they need to input their details and just get registered in a minute. In the month of production, they will be contacting by the expertise and consult If they need any help or support. This project is all about Fishermans support and keep their heads up they are very important part of country as they are helping in fish production. Bangladesh has increased sixfold in the last 34 years, and fish production is now expected to reach 45.52 lakh tons by 2020–21.

5.2 Requirement Analysis

Rich Picture

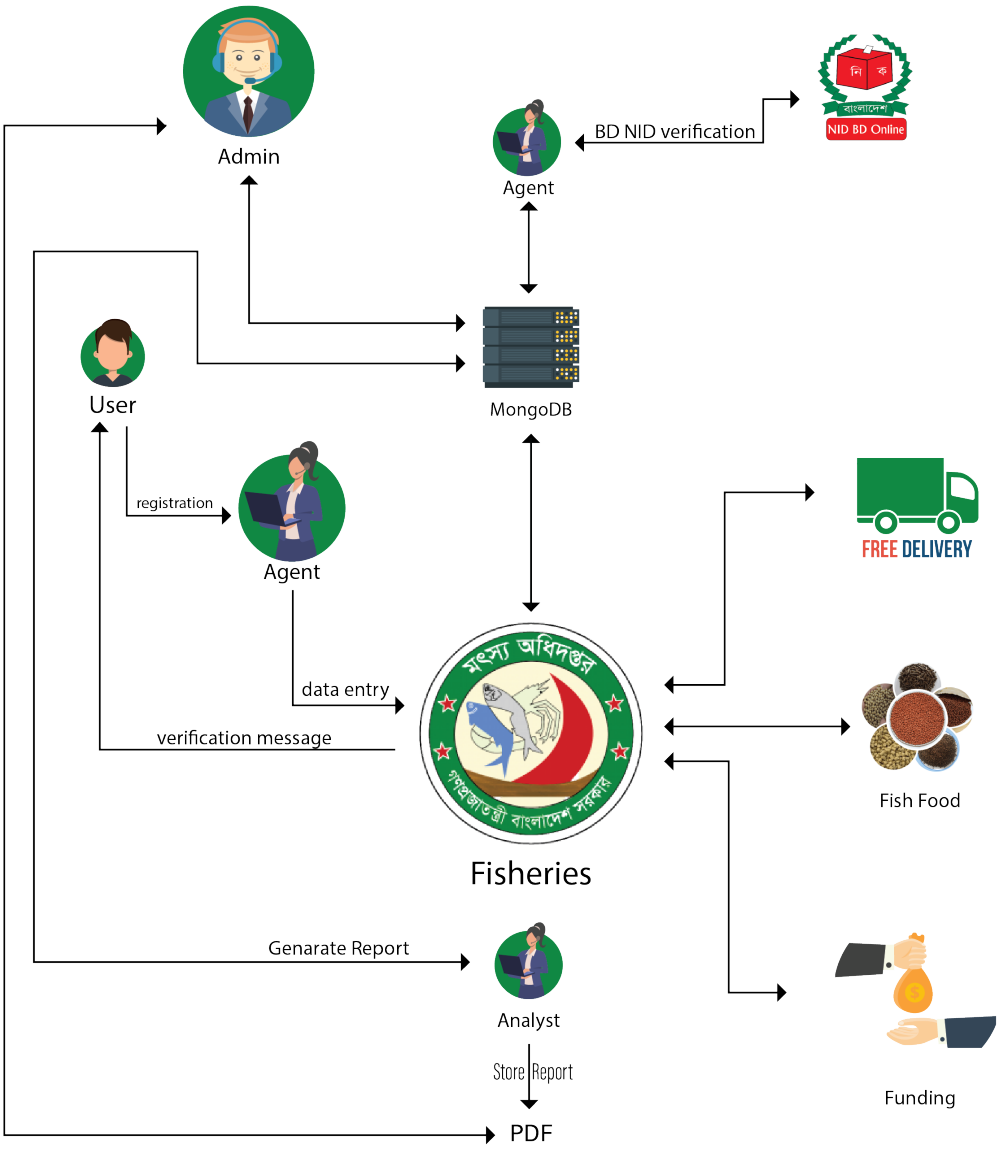


Figure 5.1: Rich picture

Functional and Non-Functional Requirements

Functional Requirements

• The authentication system validates a user to register with his NID/BOD and phone number.

• Only NID/DOB or one mobile number is permitted and phone number verification Is needed.

• User can ask for help desk, we have put FAQ.

• Both in English and Bangla translation.

• User can get to see their registration status once done with filling up the form.

• Personal bank account no or mobile banking information will be kept safe.

• Admin can check files.

• Admin panel can accept and reject user files.

• Admin can block a user if found duplication happened.

Non-Functional Requirements

• Lightweight website making.

• Reliability of the website.

• Achieving customer satisfaction to give quality service.

• Maintaining the website continuously.

• Readable code writing that can be understanding by any developer.

• User friendly website.

• Security, the system will be secured and personal information's like user's phone numbers, bank account will be safe.

5.3 System Analysis

5.3.1 Six Element Analysis

Process	System Role					
	Human	Non-Computing Hardware	Computing Hardware	Software	Database	Network and Communication
Fisherman Registration	Fisherman	N/A	Computing Device connected to internet	Web Browser	MongoDB	Reliable Internet
Fisherman information verification	Admin	N/A	Computing Device connected to internet	Web Browser	MongoDB	Reliable Internet
Check fisherman status	Fisherman Agent	N/A	Computing Device connected to internet	Web Browser	N/A	Reliable Internet
Fisherman inputs data	Agent Fisherman	N/A	Computing Device connected to internet	Web Browser	MongoDB	Reliable Internet
Admin monitors fisherman data's	Admin	N/A	Computing Device connected to internet	Web Browser	MongoDB	Reliable Internet

Figure 5.2: Six Elements

5.3.2 Feasibility Analysis

Feasibility Analysis

The importance of a feasibility study is based on organizational desire to "get it right" before committing resources, time, or budget. A feasibility study might uncover new ideas

that could completely change a project's scope. It's best to make these determinations in advance, rather than to jump in and to learn that the project won't work. Conducting a feasibility study is always beneficial to the project as it gives you and other stakeholders a clear picture of the proposed project. For our project we followed some feasibility analysis steps to make our project market based and they are: **Technical feasibility**
This assessment focuses on the organization's technical resources. It helped us organization determine if resources meet capacity and if the technical team can convert ideas into working systems.

Economic feasibility

This assessment typically involves a cost/benefits analysis of the project, helping our organization determine the viability and benefits associated with a project.

Legal feasibility

This assessment investigates whether any aspect of the proposed project conflicts with legal requirements like zoning laws, data protection acts, or social media laws.

Operational feasibility

This assessment involves undertaking a study to analyze and determine whether-and how well-our organization needs can be met by completing the project.

Scheduling feasibility

This assessment is the most important for project success. In scheduling feasibility, our organization estimated how much time our project will take to complete.

5.3.3 Problem Solution Analysis

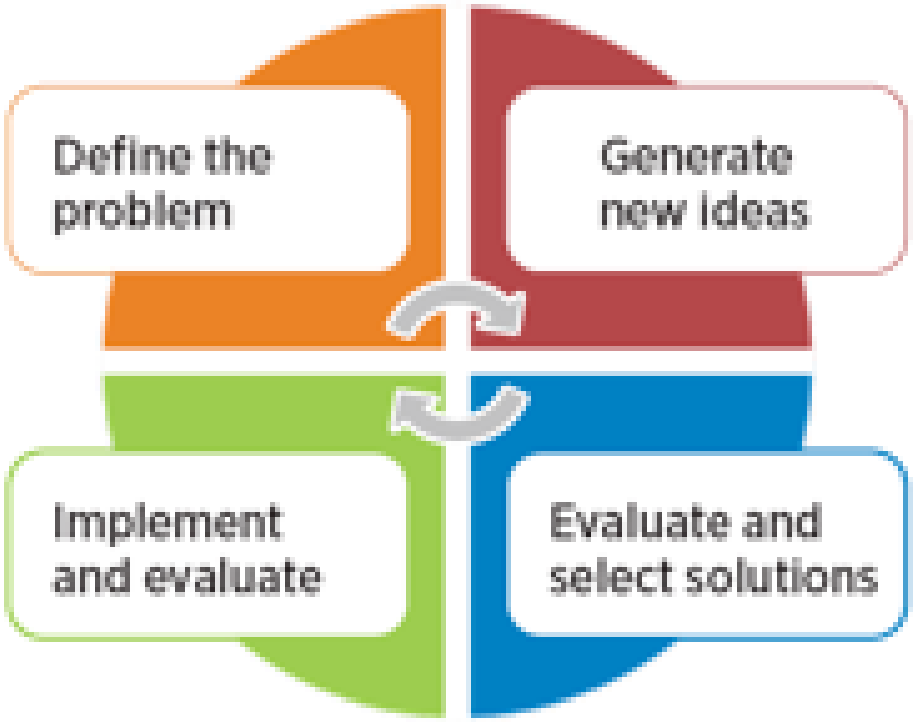


Figure 5.3: Problem Solving Chart

In order to effectively manage and run a successful organization, leadership must guide their employees and develop problem-solving techniques. Finding a suitable solution for issues can be accomplished by following the basic four-step problem-solving process and methodology outlined below. [2]

Step	Characteristics
1. Define the problem	• Differentiate fact from opinion • Specify underlying causes • Consult each faction involved for information • State the problem specifically • Identify what standard or expectation is violated • Determine in which process the problem lies • Avoid trying to solve the problem without data
2. Generate alternative solutions	• Postpone evaluating alternatives initially • Include all involved individuals in the generating of alternatives • Specify alternatives consistent with organizational goals • Specify short- and long-term alternatives • Brainstorm on others' ideas • Seek alternatives that may solve the problem
3. Evaluate and select an alternative	• Evaluate alternatives relative to a target standard • Evaluate all alternatives without bias • Evaluate alternatives relative to established goals • Evaluate both proven and possible outcomes • State the selected alternative explicitly
4. Implement and follow up on the solution	• Plan and implement a pilot test of the chosen alternative • Gather feedback from all affected parties • Seek acceptance or consensus by all those affected • Establish ongoing measures and monitoring • Evaluate long-term results based on final solution

Figure 5.4: Problem Solving table

5.3.4 Effect and Constraints Analysis

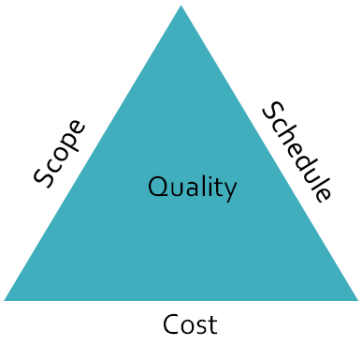


Figure 5.5: The Iron Triangle in Action

We all got to learn in project management about iron triangle because the Project Management constraints are no longer limited to just 3 or 4 parameters. More and more experts agree that there are 6 constraints of Project Management. [3]
Time (Schedule) – The project must be completed on time
Cost – The project must stay within the budget.

Scope – The project scope must be managed throughout.
Quality – The product of the project must do what it is supposed to do.
Resources – This includes both physical and team resources. Both are needed for the project.
Risk – Unexpected events can derail your project so risk planning is essential.

5.4 System Design

UML Diagrams

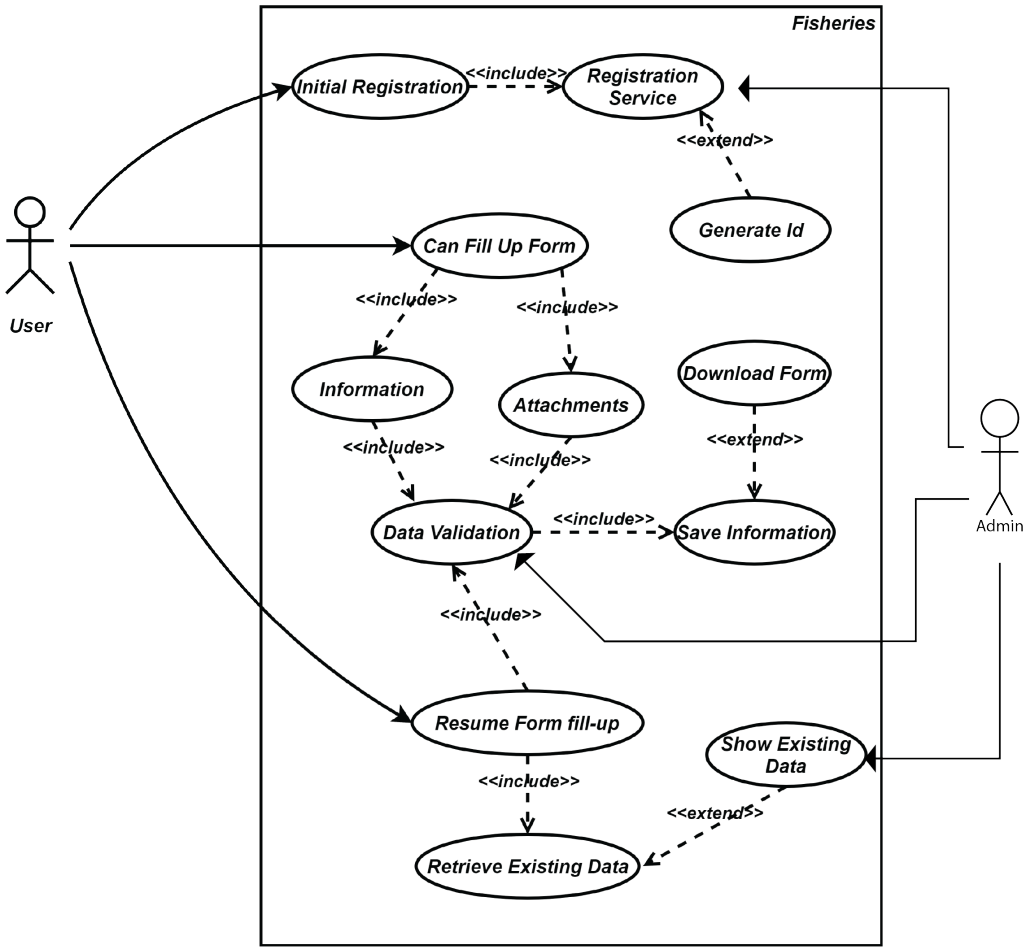


Figure 5.6: Use Case

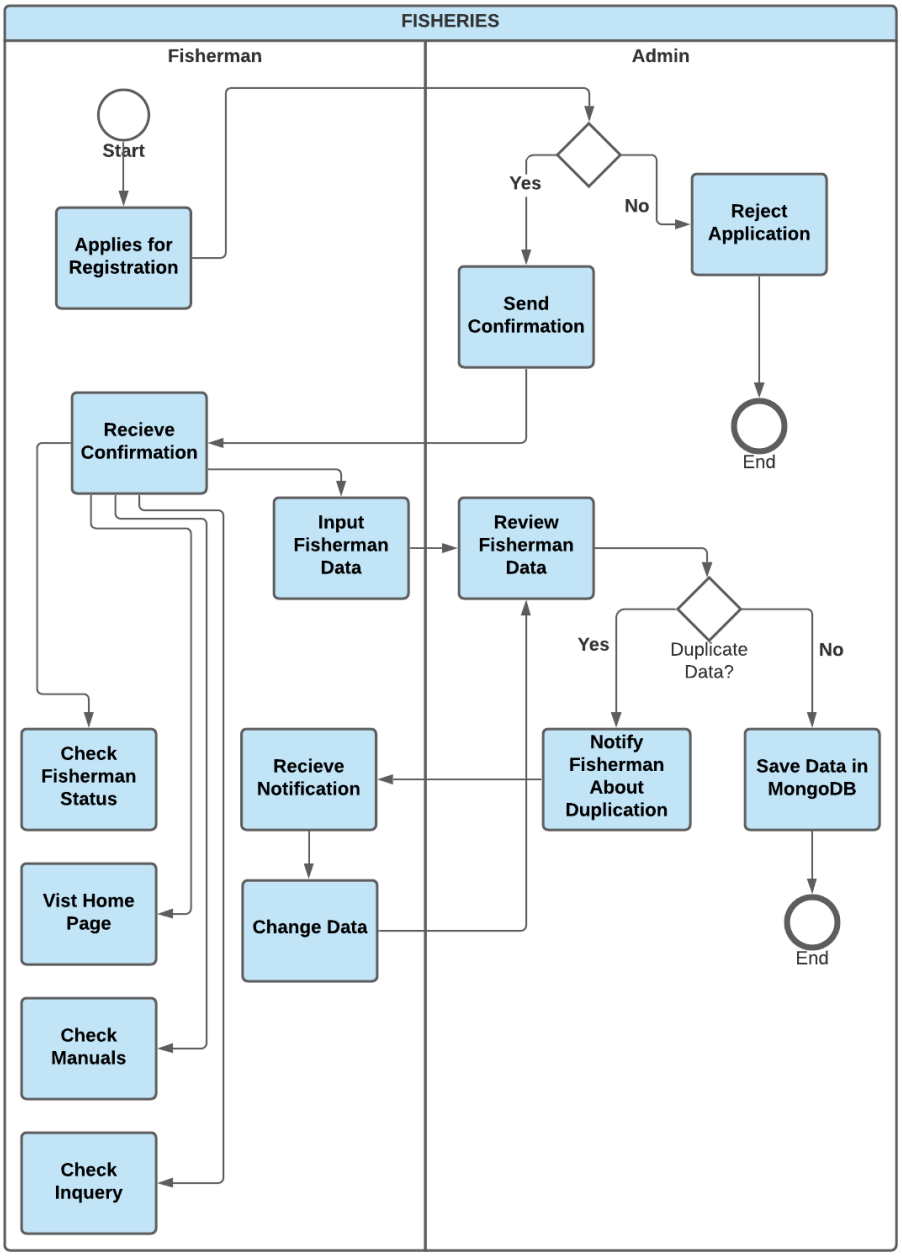


Figure 5.7: Activity Diagram

Architecture

The architecture that we are using for this project is MVC architecture. MVC stands for Model, View and Controller.
A web framework is a software platform for developing web applications and websites. Web application frameworks offer a wide range of pre-written components, code snippets, and whole application templates. Web development frameworks can be used for the development of web services, web APIs (Application Programming Interface) and other web resources.

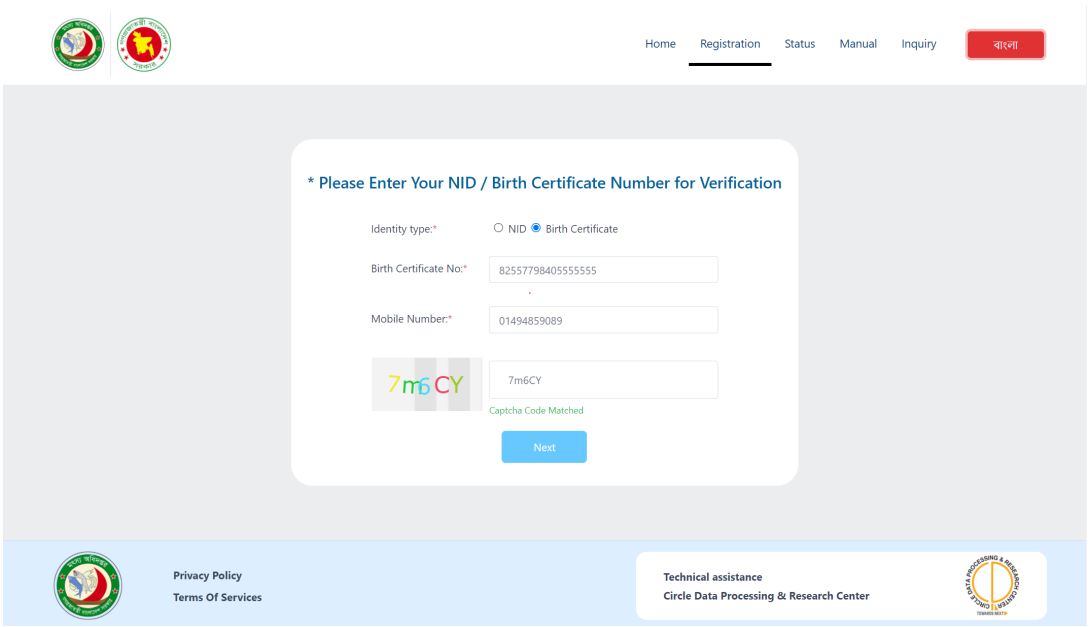
For Frontend Languages – HTML, CSS, JavaScript and for Backend Languages – JavaScript, react. [4]
React is a JavaScript framework developed by Facebook that simplifies the process of building interactive UI's. It is the base of React Native, an adjacent framework for building mobile applications. [5]
Both frameworks have a one-way data flow, which is considered more intuitive than bi-directional data binding. Hot reload is another popular feature of the React frameworks allowing developers to immediately see changes as they are applied.

5.5 Implementation

5.6 Testing

Input

User need to give their National id/Birth certificate no and phone number to processed their registration.



Output

গণপ্রজাতন্ত্রী বাংলাদেশ সরকার

জেলে নিবন্ধন ও পরিচয়পত্র প্রদান প্রকল্প

জেলে নিবন্ধন ফরম

ক্রমিক নং : 32b85cb8-453d-460d-9b7c-1b678be3c284

উপজেলা : নবাবগঞ্জ | জেলা : ঢাকা | বিভাগ : ঢাকা

থানা : ঢাকা | ইউনিয়ন : রামনগর | পৌরসভা/সিটি কর্পোরেশন : বাড্ডা থানা

নাম :তৌফিকা বিনতে শফিক সিনথিয়া (বাংলায়)

:TOWFIKA BINTAY SHAFIQ SINTHYA (ইংরেজিতে)

জাতীয় পরিচয়পত্র নং : 7 6 8 9 7 9 8 8 8 0 8 8 8 8 8 8 8

জন্ম নিবন্ধন নং : 6 5 7 8 6 8 8 8 8 8 8 8 8 9 8 8 9

লিঙ্গ : ছেলে | রক্তের গ্রুপ : বি +

বৈবাহিক অবস্থা : একাধিক বিবাহ | ধর্ম : শিখ ধর্ম

পিতার নাম :ALFAZ ALAM CHOWDHURY

মাতার নাম :TAHRIN ALAM CHOWDHURY

স্ত্রীর নাম : SUMAIYA SIDDIKA

Chapter 6

Results & Analysis

After finishing project infrastructure, we checked the project in our QA server and got our expected outputs and after analyzing some issues we got to refactor those bugs and fixing it accordingly. Here I have attached our project interfaces.
This is the homepage where our user will get their first view.

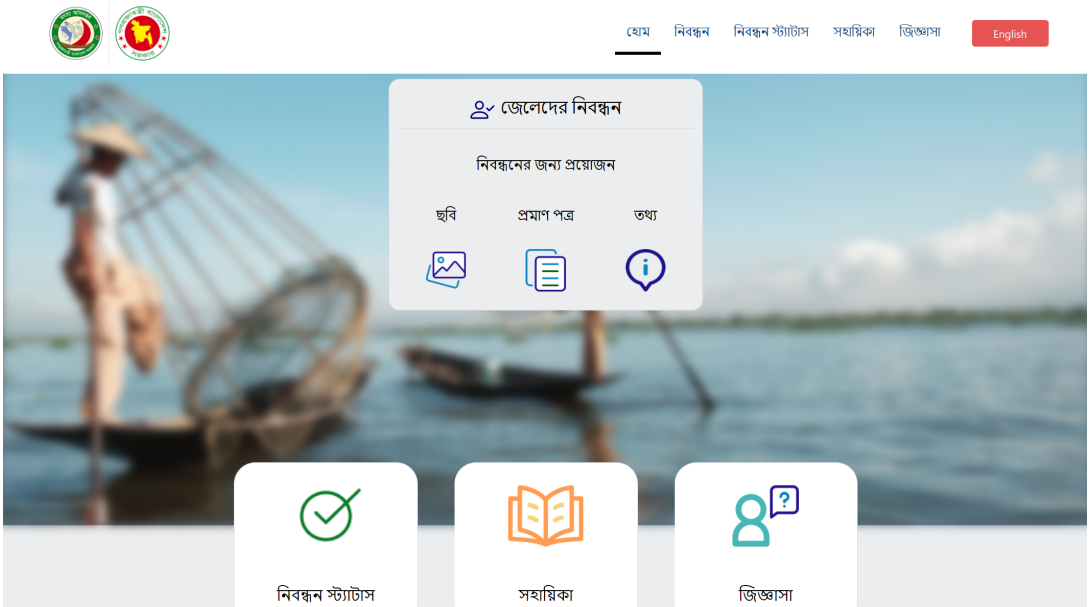


Figure 6.1: Home Page

This is the registration page where fisherman will be able to get started with their valid NID/DOB and phone number. Once this page information's are giving properly, they can give other information's as required.

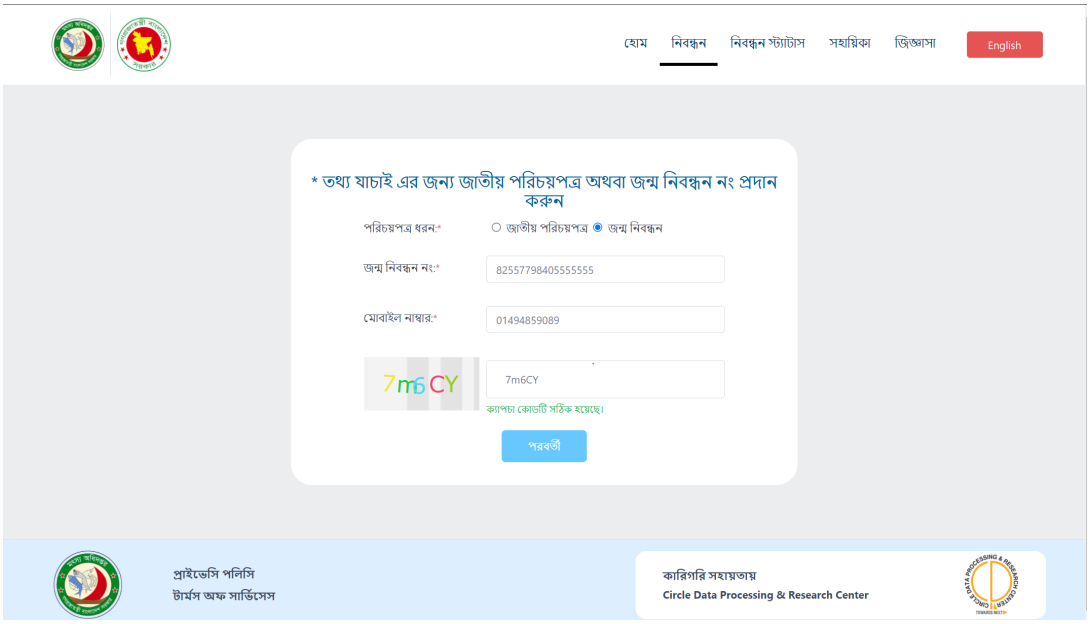


Figure 6.2: Registration in bangla

Here according to user Wishlist have kept both options to fill up the form in Bangla English.

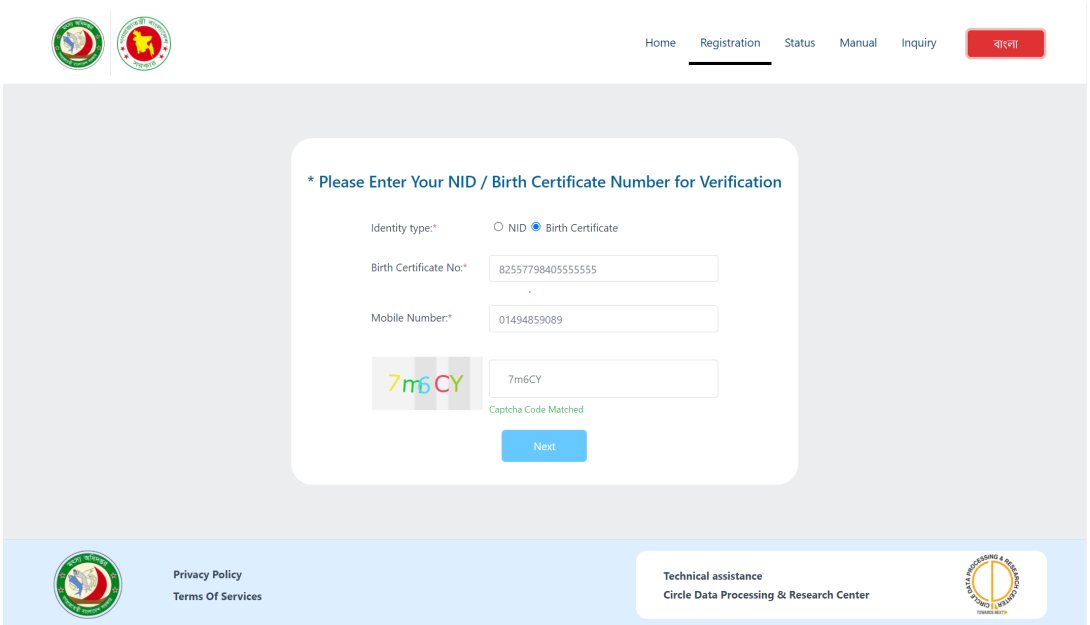


Figure 6.3: Registration in English

Here user can give his/her personal information as required.

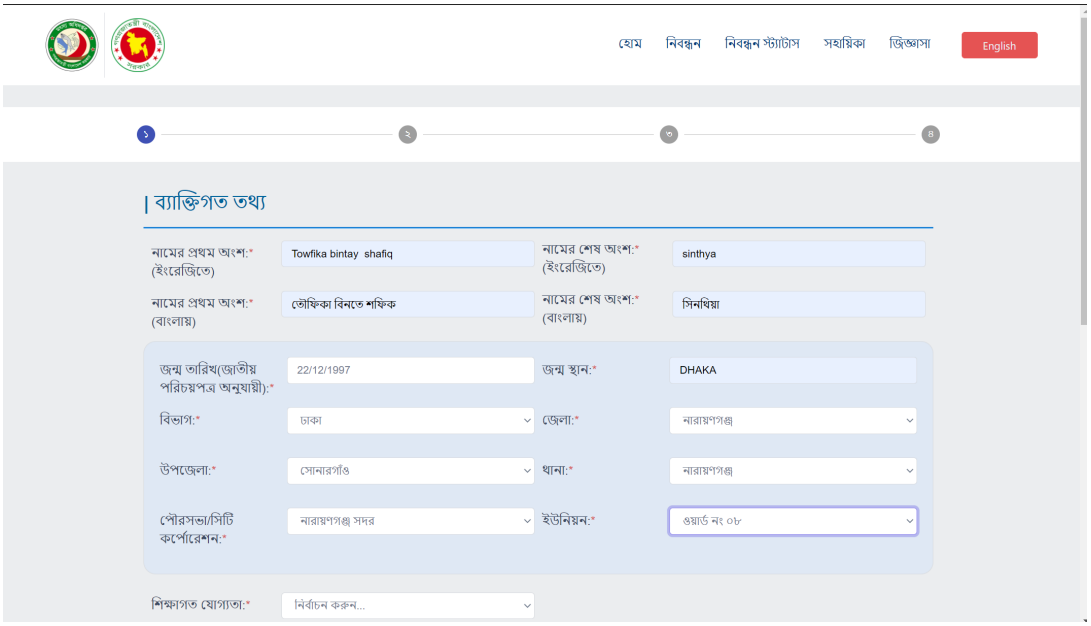


Figure 6.4: User Information

In the 2nd page user will give their contact information, here they can add present address and also permanent address and move on the next page after completing.

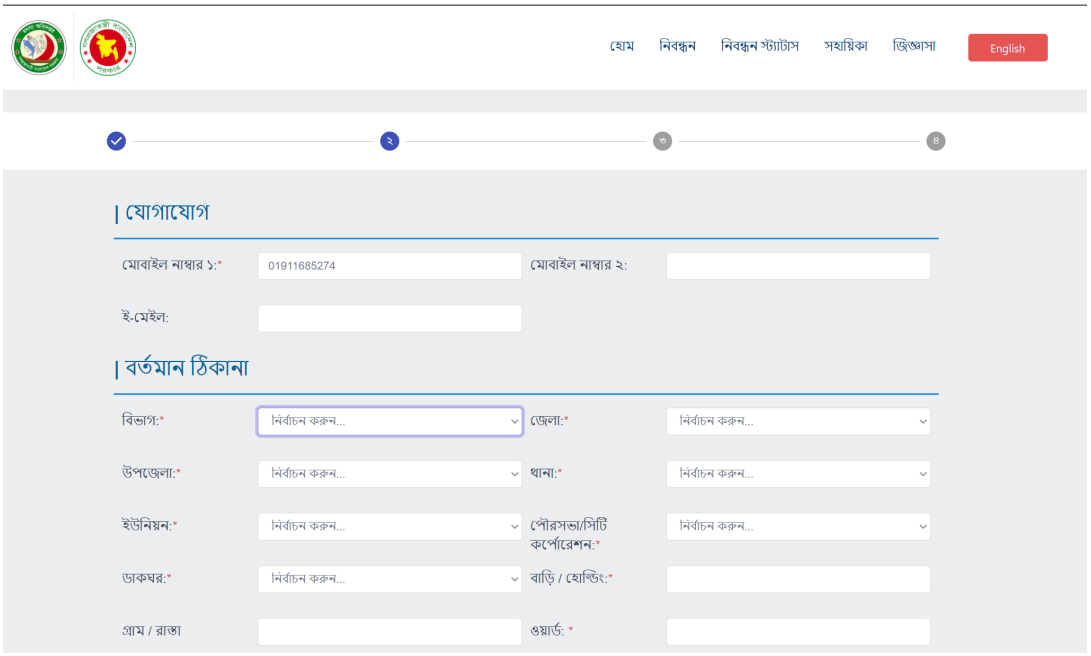


Figure 6.5: User Contact Information

This part will be confidential as our users will input their income source and bank account number etc.

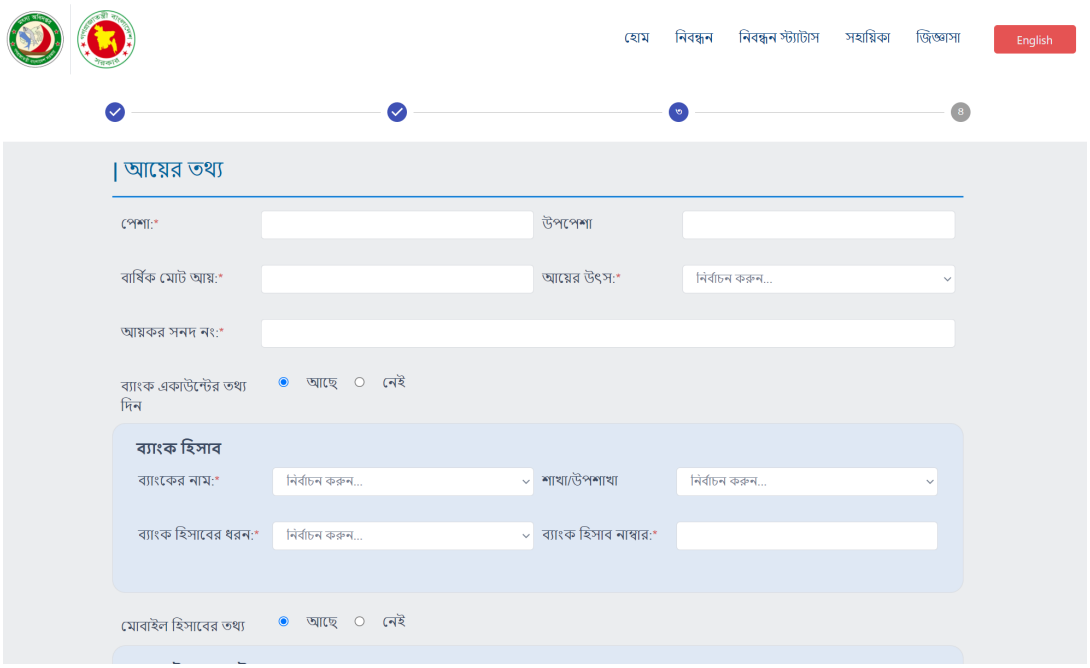


Figure 6.6: User Income-source Information

Last but not the least user will upload his/her recent passport size picture , NID copy , DOB, fisherman testimonial, character certificate and if they want to submit more documents they will get and option add more.

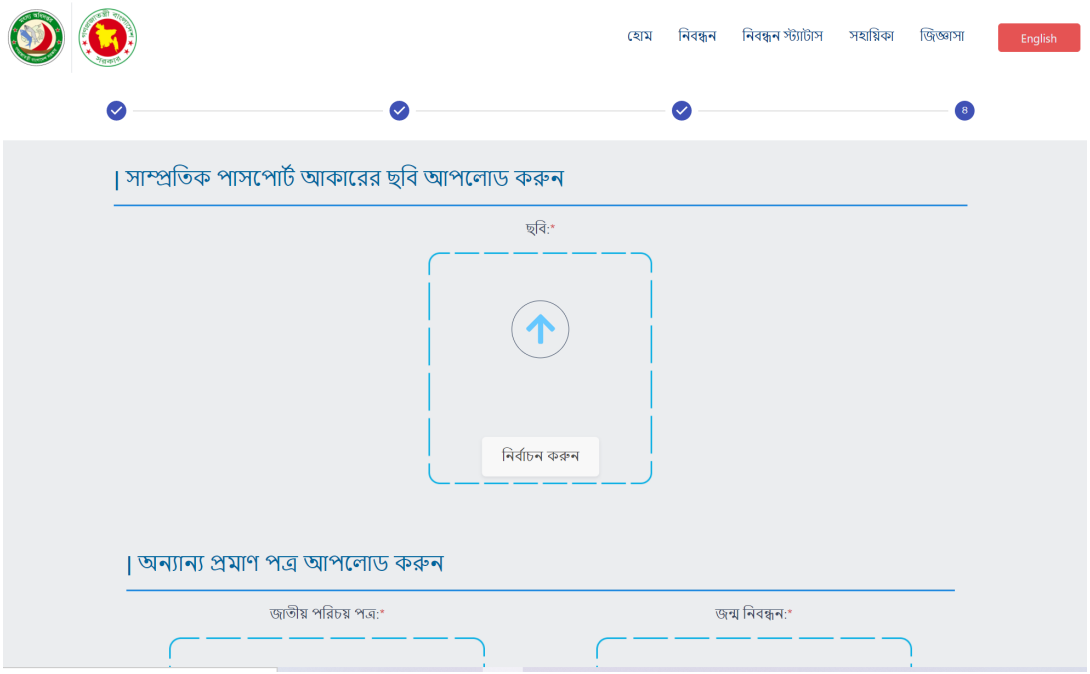
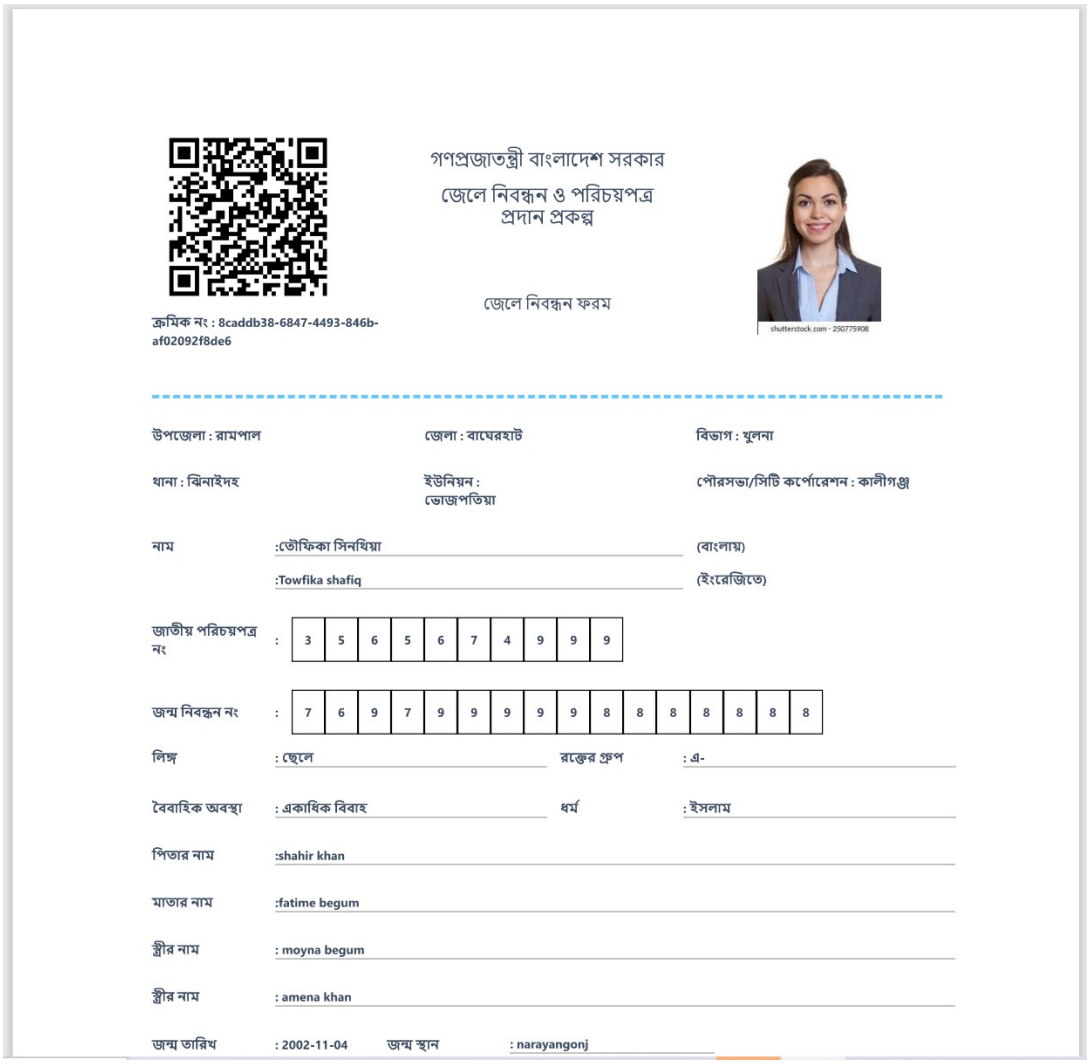


Figure 6.7: User Attach Information

After giving all the information our user will be able to download their form.



গণপ্রজাতন্ত্রী বাংলাদেশ সরকার

জেলে নিবন্ধন ও পরিচয়পত্র প্রদান প্রকল্প

জেলে নিবন্ধন ফরম

ক্রমিক নং : 8caddb38-6847-4493-846b-af02092f8de6

উপজেলা : রামপাল | জেলা : বাগেরহাট | বিভাগ : খুলনা

থানা : ঝিনাইদহ | ইউনিয়ন : ভোজপতিয়া | পৌরসভা/সিটি কর্পোরেশন : কালীগঞ্জ

নাম :তৌফিকা সিনথিয়া (বাংলায়)

:Towfika shafiq (ইংরেজিতে)

জাতীয় পরিচয়পত্র নং : 3 5 6 5 6 7 4 9 9 9

জন্ম নিবন্ধন নং : 7 6 9 7 9 9 9 9 9 8 8 8 8 8 8 8

লিঙ্গ : ছেলে | রক্তের গ্রুপ : এ-

বৈবাহিক অবস্থা : একাধিক বিবাহ | ধর্ম : ইসলাম

পিতার নাম :shahir khan

মাতার নাম :fatime begum

স্ত্রীর নাম : moyna begum

স্ত্রীর নাম : amena khan

জন্ম তারিখ : 2002-11-04 | জন্ম স্থান : narayangonj

Figure 6.8: User Download Form

Chapter 7

Project as Engineering Problem Analysis

7.1 Sustainability of the Project/Work

Sustainability in the project profession is an approach to business that balances the environmental, social, economic aspects of project-based working to meet the current needs of stakeholders without compromising or overburdening future generations.

While making this project, the company has done a lot of requirement analysis for the project. We have researched and compared with other software's and found what improvements we can implement in out project so that it meets all the sustainability requirements.

This project will help our country develop a very important part to establish and get records to improve in fisheries side.

7.2 Social and Environmental Effects and Analysis

After doing research on our project, I believe that the project is environmentally friendly, socially effective and economically it helping out fisherman to get their right take Care from our government side.

This project is especially designed for those who are fisherman in our country, and they contain a very important role in our society and in our country as they are helping us to feed protein in a daily basis which we can't ignore. So, there livelihood matters and we are making registration process to keep track on them and contact for more development in our fisheries site. Socially and environmentally our software meets all the requirements

and it won't make a risk for our future generation.

7.3 Addressing Ethics and Ethical Issues

The more innovatively progressed our reality turns into, the more vital it is to address moral difficulties and follow acknowledged moral standards and rules. Touchy information is continually sent over the web through various frameworks, and it should be checked that the information isn't compromised in any capacity.

We guaranteed that our undertaking information was adequately secure to forestall hacking or breaks. To get delicate information from any type of release, appropriate security methods are taken. Information is safely put away in the cloud, and basic data, for example, passwords is encoded. This information must be gotten to by our group's Lead Developer with substantial qualifications, and nobody else in our group approaches, guaranteeing the information's security.

All venture related records, exchanges, and arrangements, just as the codebase, are kept hidden.

Chapter 8

Lesson Learned

8.1 Problems Faced During this Period

Throughout the Internship process, I have faced so many new challenges and I also overcome day after day. As we all know that due to gobal pandemic situation it created a blockage in our regular life. It was so tough to maintain safety precautions and go for office every day and during lockdown as an intern it was tough to communicate with other team members and work accordingly. Internet issues and also badly suffering with my eye site problem as I had to work randomly every day for a fixed period. Still managed to overcome all those issues, as life goes on and we need to adopt certain changes.

Work place was a challenging thing as I got to learn new technologies in a very short time and it was difficult to understand the flows. It was tough to manage works on time and report timely to the supervisor. Faced issues using GitHub as I was totally new to git. It was quit challenging to understand the operations and how the repositories are maintained.

8.2 Solution of those Problems

As we were suffering from this pandemic situation, I tried to maintain proper safety and went to office. Again, some tasks were so difficult so understand so I R and D on those tasks and got a proper solution, like I had a task to translate some data in Bangla so I tried to translate the file in python and still there were some spelling issues so I tried to solve that issue using other software's where we can get perfect spelling solutions. I also got to solve GitHub issues I started practicing GitHub and at a moment got to learn that how we can control the versions of our projects. Then I worked with json files, here I had to convert the posgres sql to json format. Worked with reusable components and

published as package so that we could use those components for further projects.

Chapter 9

Future Work & Conclusion

9.1 Future Works

"The future is already here-it's just not evenly distributed"-William Gibson. The company has future plan for the project. They want to apply image processing system to identify our clients easily and get their information at a moment. Also, they are planning to develop this software to help people through online chatbot system. Our countries motive is to build digital Bangladesh and already we are so on the peak of development, and it won't take much time to see us to work everything digitally. As in covid situation we will be able to contact with our clients through online and consult them with their development and basic supports they may need. Hopefully we will be able to develop These processes our project in future

9.2 Conclusion

The internship has been a very fruitful and worthy experience for me. I was able to work, hands-on, in an industry that I had no prior knowledge about. The process of transforming the rich theoretical knowledge with the practical knowledge of the industry has dawned on me and driven to seek excellence in the craft of software engineering. Interns don't usually get to work on live projects and contribute to the workflow of an ongoing project in the office. But the people at CDPRC, felt that I was worth giving a chance to and tasked me with such projects that would help me grow in every aspect of my career. Being the youngest there and also the least experienced of the bunch, I got a plethora of advice from the people of the offices. I also learned the tools and techniques that were utilized by industry hardened software developers and engineers alike. On top of that I was taught etiquettes of the corporate life and also how to maintain proper rapport with my co-workers. These are the skills that can't be learned using books and have to be applied to assure proper implementation. It was a blessing for me to be in

the presence of such good people who were willing to help me at each part of my journey through the internship. In the end, I'd like to thank both my internal and external supervisors whose guidance and motivations have persuaded me to strive for the success in this project and also for the endless projects to come in my way in the future.

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