Final Internship Report
Internship as a Web Developer at YY Ventures

by

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A report submitted to the Department of Computer Science and Engineering
in partial fulfillment of the requirements for the degree of
B.Sc. in Computer Science

Department of Computer Science and Engineering
Brac University
January 2023

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Declaration

It is hereby declared that

1. The Final Intership Report submitted is my/our own original work while completing degree at Brac University.
2. The Intership Report does not contain material previously published or written by a third party, except where this is appropriately cited through full and accurate referencing.
3. The Intership Report does not contain material which has been accepted, or submitted, for any other degree or diploma at a university or other institution.
4. We have acknowledged all main sources of help.

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Approval

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Abstract

Among all the projects I had the honor and pleasure of working at YY Ventures during my internship program and during my full time role as a Web Developer, 3ZERO Club is by far the most noteworthy one as it gave me the opportunity to work the legendary Muhammad Yunus himself. The 3ZERO Club is an initiative towards achieving the Nobel Peace Laureate Professor Muhammad Yunus's vision of creating a world of three zeros — zero net carbon emission, zero wealth concentration for ending poverty, and zero unemployment by unleashing entrepreneurship in all. The ultimate goal of the project is to inspire and enable the youth to ideate, create and lead with the entrepreneurial spirit to solve the most pressing social and environmental issues of our time.

Dedication

I would like to dedicate the entirety of my academic efforts towards my parents for whom I have tried my utmost best to go through this long journey. I would like to take this opportunity to also pay my due separately to my late father who has always encouraged and supported me to boldly go after my goals and also to my mother, whoher extreme struggles never let me realize that my father was absent from my life.

I would also like to devote the workings of this report to my respected Team Leader at YY Ventures, Mr. Fazly Rabby from whom I have learned a fair bit of technical skills as well as professionalism in such a brief period of time.

Acknowledgement

First and foremost, all praise and thanks are due to The Mighty, The Majestic Allah, Who has generously allowed me to finish the internship without any major interruptions even at troublesome times like the global pandemic.

Secondly, to my primary supervisor, Mr. Fazly Rabby, Team Leader, YY Ventures for spending his precious time on me to teach me and guide me on my way to becoming a competent Software Engineer.

And finally, to my revered and respected teacher as well as my Co-supervisor, Dr. Md. Golam Rabiul Alam Sir. who has patiently guided me the whole period of my internship program in order to deliver this final report along with two more preceding this to the best of his ability and beyond.

With their kind support and prayer, I am now on the verge of my graduation.

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Chapter 1

Introduction

1.1 Preamble

After careful consideration and evaluation of the available options, I had determined that a Software Engineering Internship Program is the most suitable choice for me, as opposed to the Thesis program. The following are the reasons that have greatly influenced my decision:

- Hands-on experience: Internship programs provide an opportunity for students to gain hands-on experience in a professional software development environment, which is essential for their future careers.
- Learning new technologies: Internship programs expose students to the latest technologies and industry practices, which can be difficult to learn in a classroom setting.
- Networking: Internship programs provide an opportunity to network with industry professionals, which can be beneficial in finding future job opportunities.
- Gaining confidence: Working on real-world projects in a professional environment can help students to gain confidence in their abilities and develop a better understanding of their strengths and weaknesses.
- Earn while you learn: Some internship programs are paid, which allows students to earn money while they learn.
- Applying theoretical knowledge: Internship programs allow students to apply the theoretical knowledge they have learned in the classroom to real-world projects and situations.
- Improving soft skills: Working in a professional environment can also help students to improve their communication, teamwork and problem-solving skills, which are essential for their future careers.
- Making a decision: Internship programs allow students to explore different areas of software engineering, which can help them to make a more informed decision about their future career path.

Being determined to do the program I ultimately secured an internship as a Web Developer at YY Ventures, a social business organization under the guidance of renowned Professor Muhammad Yunus. Afterwards I contacted my supervisor, Dr. Md. Golam Rabiul Alam to consult about the opportunity. Upon reviewing the organization profile, he approved the program and thus began my first professional experience following my university studies.

1.2 Objective

This document is a result of my six months tenure as an intern and then a full-time web developer at YY Ventures. It is generated as a requirement of an internship program under the Computer Science and Engineering department at BRAC University. The primary objective of this document is to fulfill the requirements of the internship program. However, it also serves as an overview of YY Ventures, including their business operations and my personal experience while working with the company. Furthermore, it highlights my accomplishments, project work, and professional development during the course of my internship. Additionally, this report may be beneficial for individuals seeking a comprehensive summary of YY Ventures.

1.3 Information Source

The information presented in this report was primarily obtained through my own efforts while employed at YY Ventures. This included data collected through interactions with various individuals as well as utilizing secondary sources such as the official website of YY Ventures and various Internet resources.

1.4 Document Overview

In this report, I have detailed my work experience with YY Ventures, including a comprehensive overview of the achievements and personal growth I attained while working with the team. Additionally, I have provided a brief overview of the project I was assigned during my internship and the challenges encountered during its completion. Furthermore, I have highlighted the methods employed to overcome said challenges. Overall, this document aims to provide a clear and comprehensive understanding of YY Ventures and a detailed account of my personal growth and development during the course of the internship.

Chapter 2

Company Profile

2.1 Overview

[11] YY Ventures is a premier incubation and investment organization that is dedicated to supporting early stage entrepreneurs who are working to combat the pressing issues of carbon emissions, poverty, and unemployment. Our mission is to provide the necessary resources and support to help these entrepreneurs bring their innovative ideas to fruition and make a meaningful impact on the world.

They believe that a more equitable and just world is possible if we foster 'Social Business' while leveraging young people's talents and ideas.

Figure 2.1: YY Ventures Tag Line

The incubation arm of YY Ventures, known as YY Goshthi, is dedicated to providing comprehensive support to early stage social businesses. This support includes world-class training, tailored consultation services, business resources, access to coworking

spaces, and connections to potential investors. Through these efforts, YY Goshthi aims to empower these businesses to successfully launch their minimum viable products and secure the necessary seed capital to fuel their growth and success.

YY Ventures is committed to investing in early stage and untested social businesses that are working to address the pressing issues of carbon emissions, poverty, and unemployment in Bangladesh. The organization provides active assistance to portfolio companies to help them navigate the path to notable social business funds, venture investors, partners, and clients. Since its inception in 2016, YY Ventures has supported 64 entrepreneurs, resulting in a positive impact on the lives of 150,633 individuals. The organization has ambitious goals for the future, with a target of improving the lives of two million people by 2030 through investments in socially-focused businesses in emerging countries.

Figure 2.2: Notable Partners of YY Ventures

2.2 Programs

At YY Ventures, the organization's focus is on providing comprehensive support to socially and environmentally conscious entrepreneurs as they work to launch their minimum viable product and secure the necessary seed capital to fuel their growth and success. All programs and initiatives offered by YY Ventures are designed to achieve this goal, and the organization is dedicated to working closely with entrepreneurs to help them navigate the challenges and opportunities of the early stages of business development.
YY Ventures is committed to incubating early-stage, cause-driven businesses by providing comprehensive support to young entrepreneurs. This support includes world-class training, tailored consultation services, access to co-working space, business support resources, and connections to potential investors. Through these efforts, YY Ventures aims to empower entrepreneurs to successfully launch their minimum viable products and secure the necessary seed capital to fuel their growth and success. The organization's primary objective is to assist entrepreneurs in navigating the early stages of business development and to empower them to make a meaningful impact on society.

Figure 2.3: East Africa Social Business Ecosystem Builders

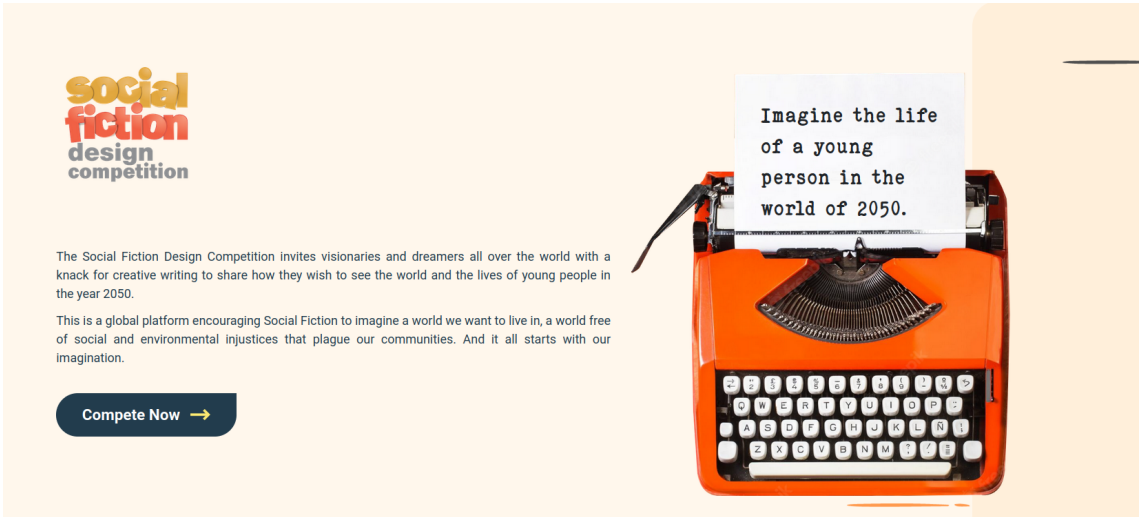

Figure 2.4: Social Business Fiction Competition

Since the beginning of their journey in 2016, they have supported 70+ entrepreneurs who have improved the lives of 200,000+ people.

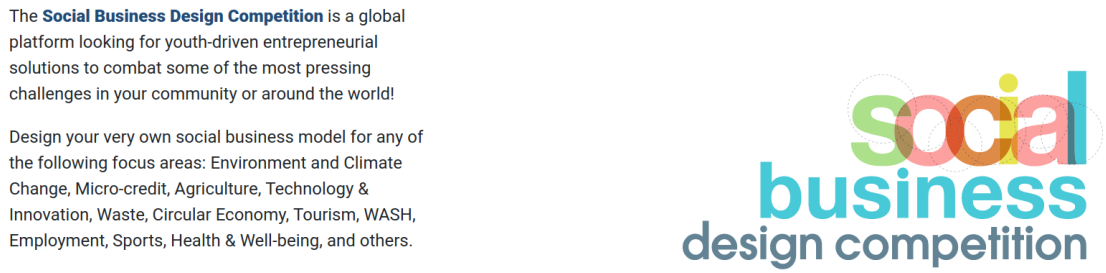

Figure 2.5: Social Business Design Competition

2.3 Portfolio

YY Ventures is dedicated to fulfilling its mission of supporting socially and environmentally conscious entrepreneurs in their efforts to achieve a sustainable future. This mission encompasses the ambitious goals of achieving zero carbon emissions, ending poverty and wealth concentration, and eliminating unemployment by fostering entrepreneurship across all sectors. The organization is committed to providing comprehensive support to entrepreneurs to help them bring their innovative ideas to fruition, and to make a meaningful impact on the world through their endeavors.

YY Ventures is dedicated to incubating and investing in early-stage, untested business models that are addressing social and environmental challenges in overlooked communities. The organization provides active assistance to portfolio companies as they navigate the path to notable venture investors, partners, and clients. YY Ventures leverages its own capital and philanthropic funding to finance promising social businesses, often serving as the first investors. In addition to providing capital, the organization supports its ventures through vision setting, developing a theory of change, and implementing impact measurement and management strategies.

They are currently raising money for their first venture fund to finance early-stage Social Businesses that are innovating across broad categories — education, healthcare, technology access, sports, environment, tourism and gender equality.

2.4 Advisory Services

YY Ventures offers a full range of corporate services including design and management of innovation programs like incubators, accelerators, innovation challenges, design sprints and venture building.

They help family foundations, impact funds, corporations, development agencies, and government agencies to use the powerful model of Social Business to take their

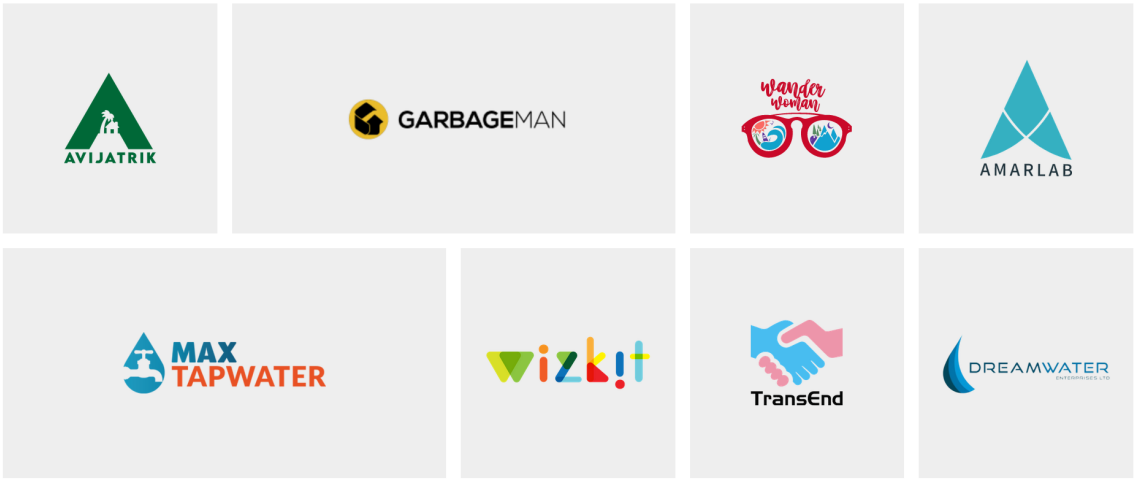

Figure 2.6: Notable Ventures of YY Ventures

innovation and social impact agenda forward in the field of entrepreneurship development, reducing poverty and fighting climate change.

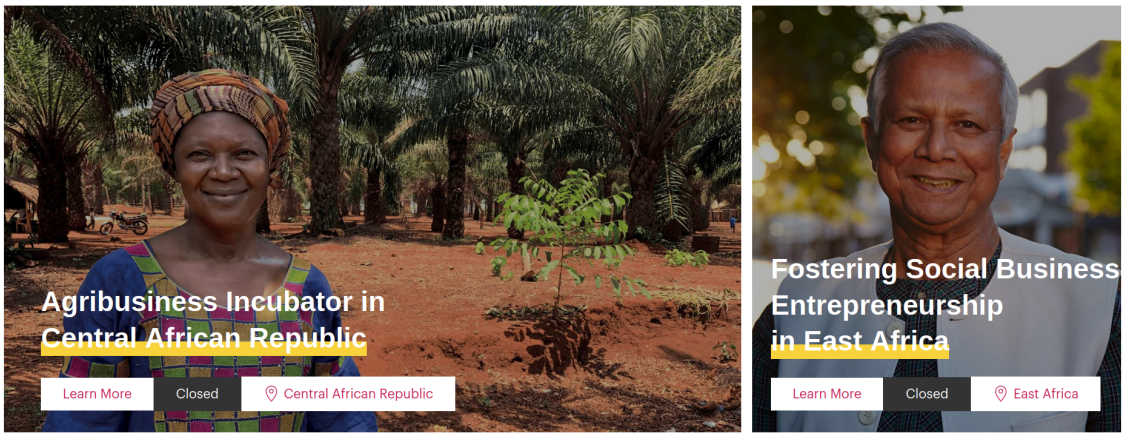

Figure 2.7: Notable Advisory Services of YY Ventures

Their consulting arm offers design and implementation of a range of innovation programs including accelerators, incubators and innovation challenges. Their world-class Accelerator facilitators can help people connect to bankable startups and tailored mentoring opportunities. They have experience in launching managing 15+ innovation programs for social entrepreneurs in the Asia Pacific and Africa. Their services were trusted by groups like United Nations Development Program, Yunus Centre, Aqua For All, and The Food and Agriculture Organization of the United Nations.

They systematically bring Social Businesses into existence by means of their own resources. Our venture-building team develops all ideas in-house as they build the core structure and a component of a Social Business from the ground up. They follow a tested protocol from identifying business ideas, building teams to launching

products, and helping Social Businesses create their legal and governance structures.

Chapter 3

My Contribution

3.1 Project Summary

[1] The 3ZERO Club is a comprehensive initiative aimed at realizing the vision of Nobel Peace Laureate Professor Muhammad Yunus for a world free of carbon emissions, poverty, and unemployment. This initiative is dedicated to achieving a state of "three zeros" - zero net carbon emissions, zero wealth concentration, and zero unemployment - through the promotion and support of entrepreneurship across all sectors. The 3ZERO Club is a pioneering effort to create a sustainable future for all, and it is committed to working closely with socially and environmentally conscious entrepreneurs to help them bring their innovative ideas to fruition and make a meaningful impact on the world.

The 3ZERO Club initiative is established with the objective of introducing young individuals to the goal of creating a "three zero" world, as envisioned by Nobel Peace Laureate Professor Muhammad Yunus, and to familiarize them with the various creative initiatives that can be undertaken to achieve this goal. The initiative entails the formation of a global network of self-formed and self-contained mini-clubs, each consisting of five members who have self-assigned tasks to play a role in creating a three zero world. These clubs empower themselves by connecting with other clubs, thereby expanding their range of common features and increasing their collective power. By linking themselves up with each other, the clubs become exponentially powerful and accelerate the process of reaching the goal in a systematic and efficient manner.

3.2 Project Overview

After gathering the requirements from several Zoom calls with the Legendary Professor Muhammad Yunus, our team came to the conclusion that initially it would be a simple static site with sign up features for the club members. However, in terms of planning the architecture, we had to keep in mind that the project would eventually grow to a point where we would need to implement many more features

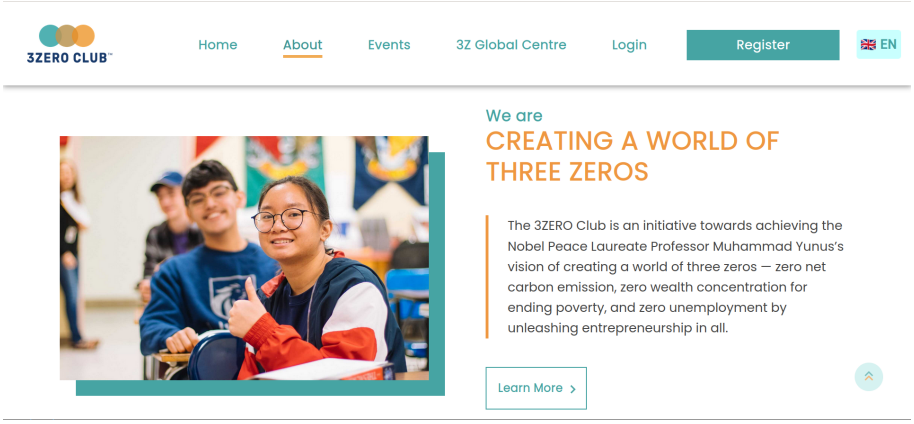

Figure 3.1: 3ZERO CLUB

like user authorization and authentication as well as feeds for them to interact on.

I had the utmost pleasure and honor of being one of the sole developer for the project. We took the opportunity to explore and use some of the cutting edge web technologies that are well approved by the global community of web developers. The primary technology stack for the 3ZERO Club website consists of Svelte.js, Astro, and Firebase. The project has been built by the principals of the JAM Stack.

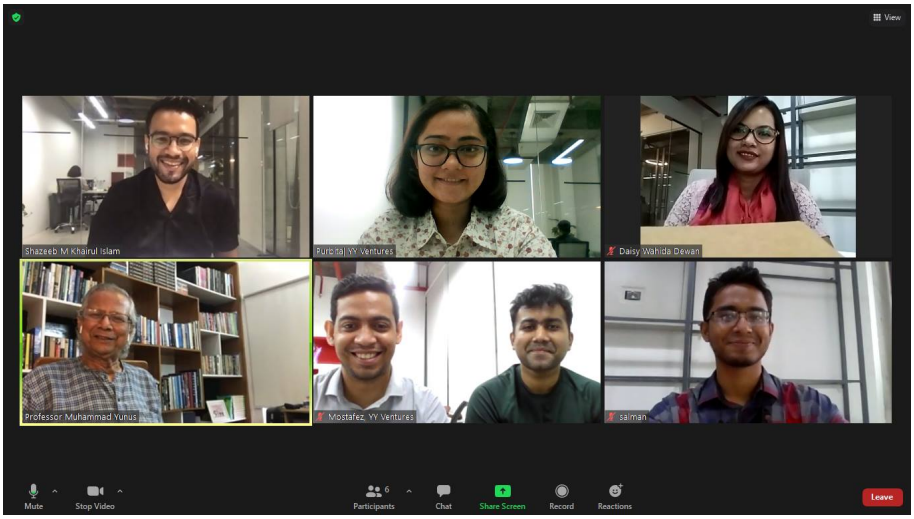

Figure 3.2: 3ZERO CLUB requirements gathering with Professor Muhammad Yunus and the YYV Team

3.3 Infrastructure

3.3.1 Overview

The development cycle was controlled by a pipeline according to hte JAMstack architecture where we pushed the code changes to Github from where Netlifly built

the project and served it to the client.

On the other hand, Firebase cloud functions were handling the business logic and they were communicated with by the client side application via the REST API protocol.

3.3.2 JAMstack

In terms of the rendering strategy and the architecture of the application, we decided to go with [7] the Jamstack as it is the most perfomant of all the alternatives as well as the simplest to implement.

Figure 3.3: JAMstack

JAMstack stands for JavaScript, APIs, and Markup. It's a web development architecture that uses a client-side JavaScript to dynamically generate content, and decouples the frontend from the backend by using APIs to handle server-side logic. This allows for a faster, more secure and scalable website, as the website can be served entirely from a CDN.

JAMstack is based on the idea of pre-building the website and serving the pre-built files directly to the browser, this is opposed to traditional server-side rendering where a server generates the HTML on-the-fly for each request.

This approach allows for faster load times and better scalability, as well as being more secure and easier to develop and maintain.

JAMstack is commonly used with static site generators, like Gatsby, Next.js, Nuxt.js and with headless CMS, like Strapi, Directus, Cockpit and others.

3.3.3 Github

[6] Github has been the choice for version controlling the codebase. GitHub is a web-based platform for version control and collaboration that uses Git as its version

control system.

Figure 3.4: Gitub

It allows developers to host and review code, manage projects, and build software. It is widely used by individuals and organizations to host and share code, as well as to collaborate on open-source projects.

3.3.4 Netlifly

In order to serve the static frontend files, We have used [9] Netlify, a very popular Platform as a Service(PAAS) solution.

Netlify is a platform that allows developers to build, deploy, and host web applications and static websites. It offers features such as continuous deployment, serverless functions, and a global content delivery network.

3.3.5 Firebase

[4]Firebase, an Infrastructure as a Solution(IAAS) developed by Google was selected as the overall backend solution. Firebase is a mobile and web application development platform developed by Google.

It provides a variety of tools and services for building, scaling, and managing web

Figure 3.5: Netlifly

Figure 3.6: Firebase

and mobile applications. Firebase includes services such as a real-time database, authentication, hosting, cloud storage, machine learning, and analytics. Developers can use these services to build and deploy web and mobile apps without having to manage infrastructure or servers. Firebase is used to build and power applications for web, iOS, and Android platforms.

3.3.6 REST API

The communication protocol used was REST API which has been the industry standard for decades now. REST (Representational State Transfer) is an architectural style for building web services. A REST API (Application Programming Interface) is a set of rules for building and interacting with web services using HTTP (Hypertext Transfer Protocol) methods such as GET, POST, PUT and DELETE.

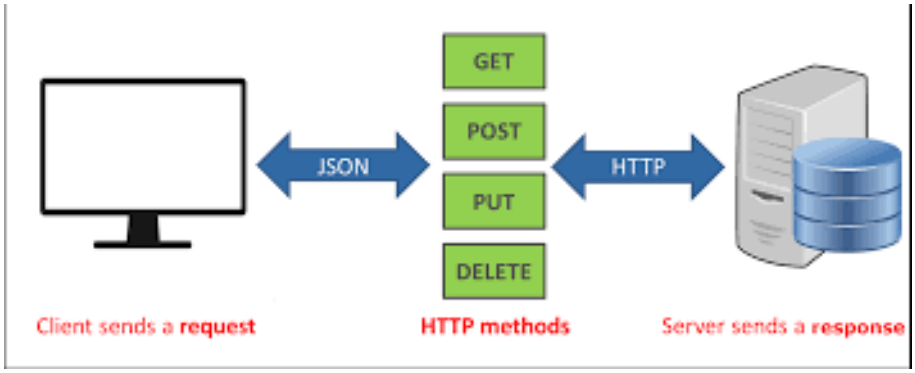

Figure 3.7: REST API

A REST API defines a set of endpoints, or URLs, that developers can access and interact with. Each endpoint represents a specific resource or collection of resources, and the methods (GET, POST, etc.) indicate the type of operation that can be performed on that resource.

For example, a REST API for a library might have endpoints for books, authors, and publishers, with methods for creating, reading, updating, and deleting resources. A developer could use the GET method to retrieve a list of books from the books endpoint, and the POST method to add a new book to the library.

REST APIs are widely adopted because they are simple to use, easily understandable, and based on the widely used HTTP protocol. They are also easy to implement and can be used with almost any programming language or framework.

3.4 Front End Implementation

3.4.1 Svelte.js

The markup has been written using [10] Svelte.js, the most popular Javascript framework in 2021 according to the official Stackoverflow Developer Survey. Svelte.js is a JavaScript framework for building user interfaces. It's different from other JavaScript frameworks such as React, Angular and Vue because it does not use a virtual DOM (Document Object Model) to update the view when the state of the application changes. Instead, Svelte.js compiles your code at build time and generates imperative code that updates the DOM.

Figure 3.8: Svelte

Svelte.js makes it easy to build reactive, high-performance web applications by providing a simple and expressive syntax for building components, handling events, and updating the view. It also provides a built-in system for handling state and component-level styling, making it easy to build maintainable, modular code.

Svelte.js is a lightweight and easy to learn framework, it's also has a small bundle size, which means it can be loaded faster and it's good for web performance. It's also has a good developer experience, with a good developer tooling, error messages and debugging.

Svelte.js is commonly used to build web apps, progressive web apps, and mobile apps. It's also used with other frameworks and libraries like Next.js, Nuxt.js, and Electron.

3.4.2 Misc Frontend Tools

I have used Astro, a static site generator that goes well with Svelte.js.

For a more modular and readable stylesheet codebase, SASS has been preferred

and used over CSS.

In order to generate static files, For bundling the application, I decided to use Snowpack, Babel.js and PostCSS that provides a robust solution for cross-browser compatibility.

No third party UI library/framework was used for the project with a view to keeping the website as light as possible for performance benefits as well as to stretch our programming skills in the process.

3.4.3 My Contribution

I was one of the two core developers for the [3] front-end side of the project where I made a total of 162 commits on the codebase. Additionally, a few of the architecture choices like using Svelte.js and SAAS was taken due to my suggestions.

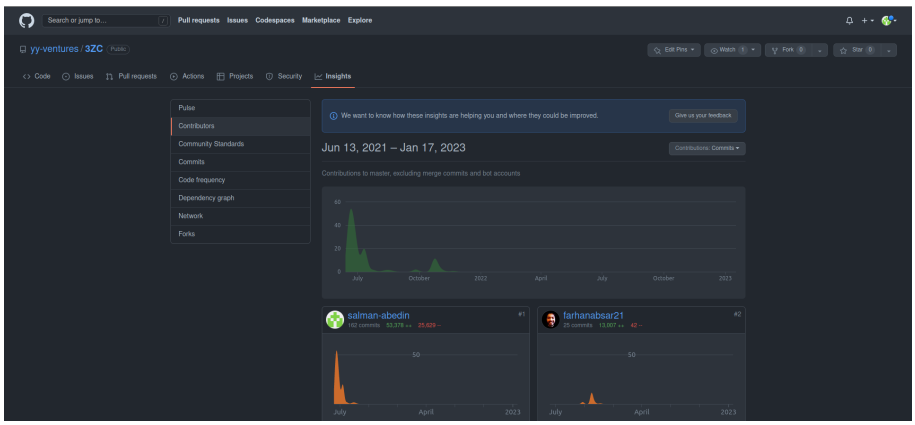

Figure 3.9: Front-end Contributions

3.5 Back End Implementation

3.5.1 Overview

We have used cloud functions to sign up 3Zero Club members by sending them emails to them by using mailgun. The process is initiated from the client side whenever a new club wants to join.

3.5.2 Firebase Cloud Functions

The business logic has been handled by the [5] Cloud Functions feature provided by Firebase. Firebase Cloud Functions is a serverless platform provided by Google Firebase, it allows developers to run backend code without the need to manage servers. Cloud Functions can be triggered by events such as changes in data in the

Firebase Real-time Database, new user sign-ups, or changes to files in Cloud Storage.

Figure 3.10: Firebase Cloud Functions

Once a function is triggered, it can perform any number of actions, such as sending an email, updating a database, or making an external API call. Cloud Functions can also be used to handle authentication and authorization, process payments, and validate data.

Firebase Cloud Functions are implemented in JavaScript and run on Node.js environment, Developers can use their favorite Node.js libraries and tools to develop, test and deploy their functions.

Cloud functions can also be integrated with other Firebase services like Firestore, Firebase Authentication, Firebase Hosting, Firebase Storage and Firebase Cloud Messaging to create powerful serverless applications.

3.5.3 Mailgun

In order to send mails, we have used [8] Mailgun, a transactional email api service built with developers in mind. Mailgun is a cloud-based email service that allows developers to send, receive, and track email using an API. It is designed to simplify the process of sending email from web and mobile applications, and can handle large volumes of email.

Mailgun provides a number of features, such as:

- sending email through an API, SMTP, or a web interface
- tracking email delivery and bounces
- managing email lists and unsubscribes
- processing inbound email

Figure 3.11: Mailgun

- setting up webhooks to trigger actions in your application based on email events
- providing detailed analytics and reporting
- providing email validation service

Mailgun is often used by developers to handle transactional email, such as password resets, order confirmations, and account verifications. It is also commonly used for sending marketing or bulk email. Mailgun supports a variety of programming languages and frameworks, including Ruby, Python, PHP, and Node.js.

3.5.4 My Contribution

Due to the simple nature of the business logic, I was assigned solely to write the [2] cloud functions.

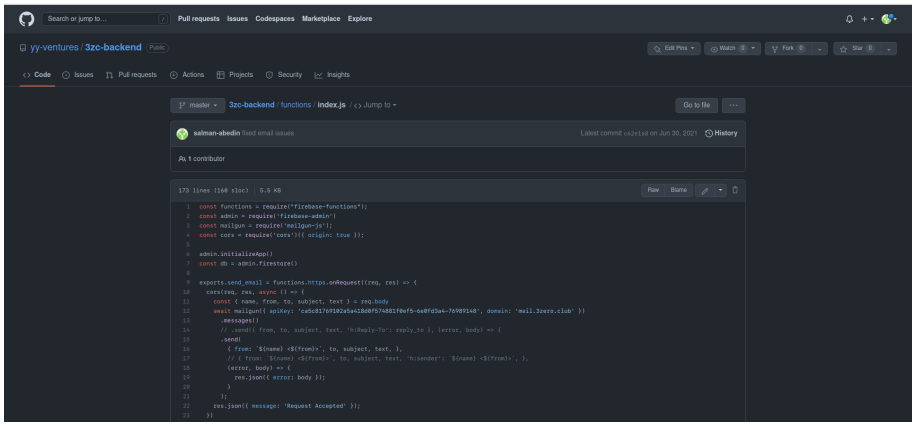

Figure 3.12: Back-end Contributions

Chapter 4

Growth

4.1 Professional Growth

Prior to joining YY Ventures, I had no experience in working in any organization and thus this internship gave me the opportunity to learn the dynamics of the organizational environment first hand. Initially, I learned how to communicate my thoughts with clarity and respect to my fellow interns and my colleagues. I also learned how to be diligent and punctual as I had to deliver various tasks in time. My language skills also got sharpened due to me collaborating with foreigners from all over the globe during my internship. Last but not least, I got the opportunity to experience what it's like to work with a big team where all of us had to cooperate with one another in order to accomplish our collective tasks.

4.2 Technical skills

As YY Ventures had a very experienced development team, I learned a fair bit from my fellow engineers, especially from our Team Lead, Mr. Fazly Rabby who had over 10 years of experience in the industry. I got to work with technologies I had never worked with before like Vue.js, Svelte.js and GraphQL to name a few. Additionally, I got exposed to the JAM stack architecture pattern which still to this day has tremendously benefited me as a Fullstack Web developer. From my fellow teammates, I also picked up the benefit of using existing third party solutions when the time is of the essence.

4.3 Interpersonal Growth

During my internship program, as I had to interact with many different kinds of people at work, I soon realized the power of being more considerate towards others. I also picked up on the fact that it always paid off to be a better listener. Last but not least, during the tough times, I also learned the value of having fortitude and patience when it comes to dealing with conflicts and disputes.

Chapter 5

Conclusion

Having worked on 3ZERO Club, I got to learn many different technologies hands on thanks to the amazing cooperation from my team leader Fazly Rabby. Additionally, I have learned the valuable skill of coordination among team members as well as the art of handling clients. Moreover, I also got to learn how to manage my time while working on such a huge project as well as how to deal with the immense pressure that accompanies such endeavours. Last but not least, being part of the project yielded me the immense honor and pleasure of meeting the legendary Muhammad Yunus himself. All in all, I feel very very fortunate to be able to work on such a prospectus project as part of my internship program.

YY Ventures is a great place for anyone interested to take part in the social business arena. The facility and the environment are exceptional for such a young organization and the team culture they have managed to develop is also noteworthy. Their roster of extremely capable and experienced members have a lot to offer when it comes to a learning experience and the fact that one might get the opportunity to work directly with the likes of Muhammad Yunus is alone reason enough to recommend YY Ventures as a preferred workplace. Rest assured, this is an amazing place for freshers and veterans alike to gather valuable experience and insights about social business.

Bibliography

[1] *3zero club*, https://3zero.club/.

[2] *3zero club back-end codebase*, https://github.com/yy-ventures/3zc-backend.

[3] *3zero club front-end codebase*, https://github.com/yy-ventures/3ZC.

[4] *Firebase*, https://firebase.google.com/.

[5] *Firebase cloud function*, https://firebase.google.com/docs/functions.

[6] *Github*, https://github.com/.

[7] *Jamstack*, https://jamstack.org/.

[8] *Mailgun*, https://mailgun.com/.

[9] *Netlify*, https://netlify.com/.

[10] *Svelte*, https://svelte.dev/.

[11] *Yy ventures*, https://yy.ventures/.