



Department of Computer Science and Engineering
Islamic University of Technology (IUT)

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Internship Report

Internship Period

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Internship At

DreamOnline Limited

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BSc in Software Engineering Program
Department of Computer Science and Engineering

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And last but not least I would like to thank all my team members at DreamOnline Limited for their constant support and encouragement throughout the internship period.

1. Introduction

1.1 Introduction

This document provides a detailed report of my internship experience at DreamOnline Limited. From the 9th of May to the 9th of September, I worked as a full-stack development intern at DreamOnline Limited. Because of this internship, I get to know how a production-level application with hundreds of users is built. Throughout our academic life, we only get theoretical knowledge. But to sustain in a competitive world and become a good engineer, having practical knowledge is a must. This internship expose me to various tools and technologies of software development and makes me a better software engineer than I was before.

During my stay in the company, I worked on two production-level applications. One is the Ebidyaloy project which is an EdTech-related product and one is the WebGym project. My main goal was to develop software applications following all the stages of the software development life cycle through agile scrum methodologies. In those projects, I implemented a good number of features and functionalities and solved a lot of bugs. I also regularly attended all my scrum meetings as well as other official meetings. Throughout my internship, I had to deal with many hurdles, but I was able to successfully solve all of those. In the company, I worked with many trending tools and technologies. I learn the best practices and many clean code methodologies from working on real-life projects. Working on these projects not only helped me to increase my skills but also makes me more confident as a software engineer.

This internship has taught me the various aspects and practices of software engineering in the real world, professional development in scrum methodology and helped me enhanced my technical abilities. I had a chance to put all concepts and knowledge acquired at the university into good professional practice. The experience of working in a team makes me more considerate of others' opinions and helps me to become a good team player. I also get a perspective of working in the business world. This gives me the chance to broaden my knowledge and identify my strengths and weaknesses, both of which will be useful for my future profession.

1.2 Background

I started my internship on the 9th of May, 2022. Although my internship was for a full-stack development intern, I mainly worked as a front-end developer in the company. On the first day of the internship, the company asked for my choice of technology and assigned me a team. During my first 1 week of internship, the team lead asked me to go through the frontend and backend code of the project and understand the workflow of the project as I already knew the technologies that were used in the project. After 1 week, I was assigned to the front-end sub-team, and tasks were assigned to me by the front-end team lead.

I was also assigned to work on another project as a front-end developer as I already performed really well on my first project. I worked 2 to 3 weeks on that project and help the team to solve some issues and bugs they were facing on that project as the team had no dedicated front-end developer when I joined.

In my internship, I got the opportunity to work with the technologies I loved the most. That is Next.js. I also used tailwind CSS and swagger in my day-to-day task.

1.3 Motivation

The internship program gives me the chance to broaden my skill set, gain experience working in the industrial sector, and achieve my aim of becoming accustomed to the corporate environment. This internship gives me an opportunity to collaborate with a company and helps me establish a connection with them. I can hone my skills and broaden my experience through this involvement. I have the opportunity to learn a variety of new and trending tools and technologies. I've always wanted to contribute significantly to a production-level application and solve real-life business problems. And I'm committed to doing my absolute best to accomplish these. I was able to gain the necessary information about the software industry through this internship program.

1.4 Objective:

The main objective of the internship is to solve business problems, to know how a production level is built from scratch, and to gather information on the industry environment. As an intern,

my superior assigned me tasks. The tasks were about feature implementation, bugs, and issue fixing as well as some research and development work. I frequently communicate with my manager and team lead to know about my progress and asked them to provide feedback on my work. I regularly attend all the meetings and followed the company's policy strictly.

1.5 Scope

The primary goal of the internship was to become a good engineer. Throughout my internship, I learned a lot of things. I was able to connect the dots between my academic learning and industrial learning. If I want to sum up my learning in the internships in some points:

- Communication is the key when it comes to working in a team
- Coding this not everything when developing a product. There are a lot of things we need to consider when developing a product
- Have to follow the rules and policies when working in a reputed company
- When solving a particular problem in a production-level application we have to do it in the most optimized and efficient way possible
- Never stop learning. We need to continuously learn to grow as a developer.

2. Company Overview

2.1 About

DreamOnline Limited is a software & mobile app development company specializing in AR/VR, IoT, AI/ML, Web & Windows systems, and Android & iOS development. The company follows an agile project management methodology which reduces development costs and helps to meet deadlines. A dedicated QA team is available to ensure excellent product quality.

The company is still growing but it already creates a place in Bangladesh's software industry space because of:

- **Highly Creative & Motivated Team:**

Teams of highly talented individuals make the most creative solution to clients' problems and resolve it in the most timely manner.

- **Understanding Business Needs**

Always keep on researching on the trending global technological needs which prepares the company to understand business needs.

- **Quality & Secure Adherence**

Quality and security are the two most crucial factors during all phases of development which the company maintain with Japanese standard.

- **Result-Driven Approach**

All of the company's work are result driven and very less experimental. Always focus to reach the client's goal through fine-tuning of development phases.

- **Co-Development Teams**

Wide variety of technology experts always helps the company to create multi-talented teams helping the clients to achieve their business goals.

- **Guaranteed Innovation**

DreamOnline always strives to achieve something new in all of its projects which helps to provide the most innovative solutions.

- **DevOps Enablement**

DreamOnline always focuses on shortening the systems development life cycle and providing continuous delivery with high software quality.

- **Integrity & Transparency**

The company is continuously working with reputed brands because of their standards for integrity & transparency.

- **In-Depth Domain Knowledge**

In Every single technology or platform DreamOnline work with, they have specialist members contributing to the depth of their knowledge to create perfection.

DreamOnline Limited consistently strives for success through exemplary work and significant contributions. Teams of highly skilled engineers give their best to create an impactful and impressive product. As one of the advanced IT outsourcing companies, DreamOnline Limited always stays on schedule, scales the teams, and ensures product quality.

2.2 History

The company was founded in 2019 and currently, there are more than 60 employees in the company. DreamOnline Limited is located in Baridhara, Dhaka, Bangladesh. The mother company of DreamOnline Limited is DreamOnline Incorporation which is located in Japan. DreamOnline Incorporation mainly handles all the company's business and sales parts, and DreamOnline Limited handles the product development parts.

2.3 Mission & Vision

The core problem business people usually face is creating a system in the form of an application that can help them to automate the process of handling data and create a sustainable business operation process. From the very beginning, DreamOnline Limited focuses on solving business problems by providing quality service to its clients. To main mission of DreamOnline Limited is to

- Reduce customer effort to the absolute minimum while increasing service value.
- Provide the best possible service to clients
- Quality over quantity.
- Provide a great experience to its users'

The goal of DreamOnline Limited is to deliver superior services with minimal credit, which entails maximizing the service while minimizing the credit. It aspires to lead the field in terms of software companies. To provide great service, the company has a team of highly experienced and skilled professionals.

2.4 Location

Tokyo Office

Taiyo Seimei Shinagawa Building 28F, 2-16-2 Konan, Minato-ku,
Tokyo 108-0075, Japan.

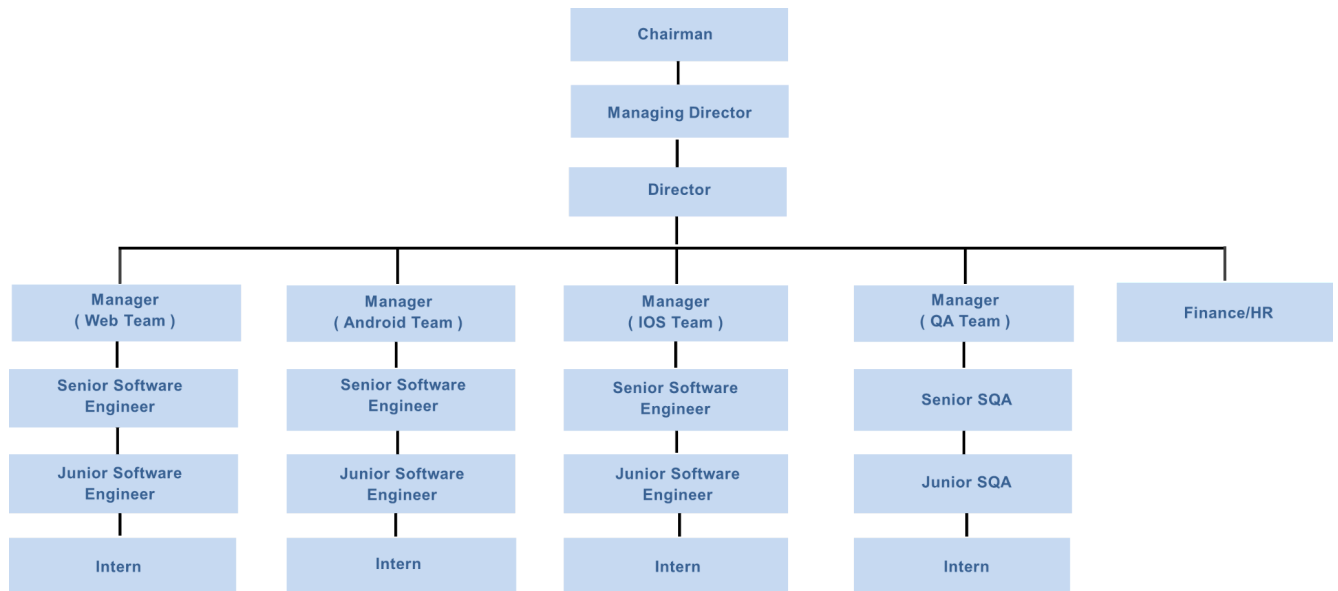
Hiroshima Office

Miura Building 5-6F 2-22 Nakajima City, Naka-ku,
Hiroshima, Japan

Dhaka Office

House #1, Road #2/E, Block - J,
Baridhara, Dhaka 1212
Contact: +8802-48810931
Email: sales-bd@dreamonline.co.jp

2.5 Organogram



The Chairman and Director of the company are at the top of the company hierarchy and they are from Japan. A Managing Director is assigned in Bangladesh to supervise all the work in DreamOnline Limited. There are basically four teams in DreamOnline Limited. One for the web, one for android, one for iOS, and the last one for Quality Assurance(QA). All the teams are led by a manager. Under them, there works senior engineers, junior engineers, and interns.

2.6 Tools and Technologies

The company works with a wide range of tools and technologies. It enables them to serve a variety of clients. So the tools and technologies that are used by the company are

- **Programming Languages:**

Java, C, Python, C++, C#, Visual Basic, Javascript, PHP, SQL, Ruby, Objective-C, Swift, Kotlin, HTML, VBA, Dart, Go, TypeScript

- **Cross Platform:**

Flutter, React Native, Unity, Xamarin, Node.js, PhoneGap, Ionic

- **Database:**

Oracle, MySQL, Microsoft SQL Server, PostgreSQL, MongoDB, SQLite, Microsoft Access, MariaDB, Amazon, DynamoDB, FileMaker

- **Cloud Service:**

AWS, Microsoft Azure, Google Cloud

Although the company is still new, they have already proven their worth through their impressive work. Their work covers a wide variety of industries

- Manufacturing
- Banking
- Healthcare
- Information Technology
- Retail
- Telecommunication
- Logistics & Transportation
- Insurance
- Public Service
- And Many More

2.7 Products & Clients

DreamOnline has very big names in their portfolio as clients. The clients put their trust in DreamOnline Limited because the company focuses on providing their clients with the best possible technological solution for their problems. Some of the clients of DreamOnline Limited are

- CocaCola
- Canon
- Sony
- SoftBank
- NTT Docomo
- Rakuten Communications

As the company works with a variety of tools and technologies, they have products that cover a wide range of industries and technologies. Some of their works are mentioned below:

- **Construction Site App**

Reduce on-site mistakes and the number of workers. Reads the QR code attached to the pile with a Bluetooth scanner and You can check if the pile is correct in the app.

- **Fracora**

Live a healthy and smart life with the healing alpaca. This is the official shopping app for health foods, diets, and cosmetics online shopping site: fracora.com. You can collect Hula coins that can be used on online shopping sites just by using them. You can enjoy popular columns and videos about beauty and health in the app.

- **Kirin Nama-Cha AR**

Take pictures with cute Sanrio characters. It will be an AR campaign site for Kirin Beverage's *Nama-cha*. After entering the serial code and getting the character, With Sanrio characters with an AR decoration camera, you can take a picture.

- **Signadia**

For the first time as an STB for digital signage Supports Michibiki's disaster/crisis management reporting service. You can connect to the display just by connecting the HDMI cable. By using a smartphone-type operation terminal, You can easily replace the content without asking a specialist.

- **Museum Application**

Baseball Hall of Fame Museum Official Application. You can see not only information but also photos and videos that can only be seen here. The camera function, which can only be used inside the museum, allows you to watch videos and photos of people who have entered the Baseball Hall of Fame by holding it over the exhibit.

- **Diet Management Application**

A diet menu that suits you. This is a dedicated app for purchasers of the Tokyu Sports Oasis diet program *Shape Navi Plus*. You can manage your eating habits just by taking a

picture of the meal of the day and posting it. The change in weight is also recorded firmly, and the trainer gives feedback on the record.

- **Wearable Application**

It is a wellness-creating app. When exercising, JISSBAND uses a wrist-worn gadget to measure physical data like heart rate and track sleep information. It supports healthy bodybuilding and can be compared to historical information.

- **NFC Enabled Application**

Secures your device against harmful outsiders. It is equipped with an NFC security feature (Near Field Communication). By placing the registered IC card on top of it, you can unlock it. A mode exists where you can capture the picture of the person who is trying to unlock the device.

- **A AI based Music Application**

It is a music application that can play high-definition audio files. Additionally, you can download and play the music that you've bought from online music stores using NePLAYER. It is equipped with a high-resolution visualizer that gives you a unique opportunity to see how high-resolution audio sources are playing back. (A patent for Client Radius is pending.)

The company works on both in-house products as well as outsourced products. They have successfully developed many products with hundreds of daily active users. DreamOnline Limited possesses the experience and expertise to help businesses to reach their customers in all digital spaces.

3. Company Culture

The company believes in the fundamental idea that creative work requires a special kind of work culture. The company takes great initiative to create a work culture that attracts talented people and supports them in giving their best work. This culture is evident in everything from workplace structure to the development teams' guiding principles.

3.1 Company Working Environment & Protocols

Having a great culture in the workplace increases a person's productivity and helps him/her to achieve personal and professional goals.

Some noteworthy workplace cultures I encountered in DreamOnline Limited are

- **Helpful and Considerate**

The company has an environment where employees can easily get help from their colleagues. Coworkers push each other to bring out the best in each. If you get stuck in some problems there will be someone who is ready to help you. Having such a positive workplace culture improves teamwork, raises morale, increases productivity and efficiency, and enhances retention of the workforce.

At the same time, the company is very considerate of an employee's time and effort. They never push an employee to work overtime or extra hour. Being in a healthy mindset is the most important thing for being productive in the workplace.

- **Comfortable Workplace**

Comfortable workspaces with amenities and perks that people care about contribute significantly to morale levels. People have the flexibility to join the office from home or join the office physically. The on-site office has all the facilities that an employee needs to do his/her day-to-day tasks. Even in the online office, everything is very organized. We can communicate with anyone without any problems. Gossip or office politics have no place in a productive workplace. Even if this occasionally occurs in group settings, it ought to be the exception rather than the rule.

- **Effective communication**

Communication is the most important thing when it comes to working in a team. A culture of fear and uncertainty is cultivated by secrecy or a lack of communication from the top to down. By having effective communication we can avoid information overload and cut down on unnecessary things that are not relevant to work. DreamOnline Limited put a strong emphasis on creating an effective communicative environment in the workplace. Coworkers can easily communicate with each other whether they are working in a physical office or in a home office. In the company, regular audits are conducted to assess how individuals are interacting with one another, input is accepted and considered, and possibilities for social connection are made possible by open and honest communication.

- **Supportive Environment**

The most important thing I like about working in this company is they really appreciate your hard work, efforts, and time. In my opinion, a good work environment is one where all employees—regardless of their gender, sexual orientation, or skin color—are valued, encouraged, and fostered. All employees ought to enjoy equal access to all benefits and rewards offered, as well as equal opportunities to advance.

- **Enjoyable Work Culture**

As an appreciation for the employee's hard work, the company regularly arranges events and parties for them. All wins like launching a mobile app or releasing a product are celebrated. These types of things motivate employees to work even harder and deliver amazing results. By doing these, employees get to know each other more and as a result, it creates a healthy and friendly environment in the workplace

- **Constructive Feedback**

The success of a team depends on feedback. DreamOnline Limited does not hide the truth when providing feedback out of concern for a disagreement. Regularly giving honest comments will help the team improve. The best strategy is to start frequent feedback sessions. All team members can provide genuine feedback on the performance of the team during these meetings.

3.2 Events

- **Meetings**

Every morning I had to join the morning scrum meeting where I have to tell the team what I did the previous day and what I am going to do today. Usually, we have our team meeting 3 to 4 times every week where we discussed the progress of the project as well as the things we need to do to meet the deadlines.

I also had to join a security meeting that generally happened in the 1st week of every month where my senior manager briefed all the employees about the security policies and rules and regulations of the company.

- **Parties**

During my stay in the company, there were three dinner parties, one lunch party, and one summer fruit festival. I joined most of them. By attending the party, I get to know a lot of amazing and talented people. It was such a great experience for me. People from different teams share their experiences of working with different tools and technologies and that really motivates me to learn even more.

- **Tours**

Sometimes a team or sometimes the whole office goes on a trip together so that they can get rid of stressful work and enjoy life. This helps in team bonding as well as makes people more motivated to do their work.

3.3 Performance Rewards

The company values the people who have a great impact on the company. As an appreciation for their hard work, the company rewards those employees and promotes them. Every year some employees get the *Employee of the Year* award for their amazing work. This type of culture not only motivates those employees who got rewards but also others to push their limits and become more skilled. Even when a person works overtime or on weekends, they get extra benefits from the company.

3.4 Internee Policy

As an intern, I was also treated as a regular employee. They always valued my opinions and gave feedback about my work. I had to attend all the official meetings. Generally, the company assigns a mentor to the intern and gives them enough time to learn about the codebase and necessary technologies.

Usually, when an intern joined the company, they give priority to what technologies the intern wants to work with. The company's policy about interns is they don't hire fresh graduates directly. They first offer internships to potential candidates and if they perform well during the internship, they get the offer to join the company as full-time employees.

The company follows a guideline for new interns. The interns have to follow this guideline and abide by the rules and regulations of the company.

- All interns will be assigned to a team first
- Interns going to report to his/her immediate supervisor
- The company allocated a learning phase for new interns before assigning them new tasks. They can take help from their respective team members.
- The company can assign the intern to a different team if required. Interns also get the choice to choose their preferable technologies.
- Interns will get a full-time employment offer if they do well during the internship.

4. Company Workflow

DreamOnline Limited is one of the advanced IT outsourcing companies. They have clients from all over the world. The company also has some in-house products which serve a huge number of users. They follow agile methodologies while developing the products. A team of highly skilled engineers who have expertise in their respective fields continuously works to meet the client's requirements and deliver an impressive product.

4.1 Services provided by the Company

The company's offshore software development services are geared to deliver results that are expected from a Japanese IT outsourcing company. DreamOnline Limited offers clients a final product that will aid in the expansion of their company in addition to software development and maintenance services. The services that the company provides are

- **Mobile Application Development**

DreamOnline has extensive experience in creating mobile apps and has developed over 800 apps to date. They have developed apps across multiple industries and technologies, including AR/VR/AI/ML.

- **Web Application Development**

Dedicated web application development team of experts brings in over 10 years of domain experience. They have developed a wide range of products for various industries. They have already established their name as a leading software company for developing great web services.

- **Windows/Linux/Mac Application Development**

DreamOnline has developed a variety of platforms using Win / Mac / Linux based on different clients' business needs and providing innovative solutions to their problems.

- **AR/VR Applications**

The company already developed a good number of applications using AR/VR technologies. They support a wide range of systems from on-site systems to game systems used at events.

- **IoT Applications**

DreamOnline developed desktop apps and smartphone apps that work with hardware devices. They have some impressive IoT applications that solve a lot of common problems.

- **ML/AI Applications**

The company also has expertise in developing ML/AR applications. The company mainly develops its apps using Apple's Core ML and Google's ML Kit.

Multiple products using different tools and technologies are developing simultaneously. The company follows both teams oriented as well as project-oriented approaches while developing its products depending on the requirements.

5. Learning and Achievement

5.1 Technical Learning

As I mainly worked as a frontend engineer, the tools and languages I learned and used are primarily frontend focused.

- **JavaScript:**

JavaScript is a lightweight, interpreted, and promise-based language. It is also called the language of the web. Both projects that I have worked on use JavaScript.

- **React.js:**

React is a JavaScript library that is used to build user interfaces. It is kept up-to-date by Meta (previously Facebook) and a group of independent programmers and businesses.

- **Next.js:**

This is a react-based framework for production applications. Next.js is used to build the client side or frontend part of the Ebidyaloy project.

- **Tailwind CSS:**

This is a utility-first CSS framework for styling User Interfaces. I heavily used Tailwind CSS while working on the Ebidyaloy project.

- **Swagger:**

Swagger is used to test the APIs that were provided by the backend team. Before using the APIs on the client side, I had to test the APIs and if something goes wrong or if I find any issues, I need to report those to the backend team.

- **Backlog:**

The company uses backlog for project management, bug, and issue tracking as well as for version control management. During my stay at the company, I thoroughly used this tool in my day-to-day work.

5.2 Soft skills learning

Working in the company not only made me a better developer but also helps me to grow as a better person.

- **Collaborative/ Teamwork:**

The most important thing I learned from this internship would be working in a team. Although in university I also worked in a team to develop many projects but working in the industry as a team is completely different from working on a university project. Like I worked as a frontend developer in the team. But at the same time, I had to constantly communicate with the backend team for any API-related issues and with the design team for any changes coming from the client or any UI elements that need modification, and also with the Quality Assurance (QA) Team regarding any issues and bugs. Apart from that, I also need to communicate with my team members while solving critical problems or implementing any new functionalities. All these things make me a better team player as a whole.

- **Time Management:**

The company is pretty strict about time management. The management encourages the employees to maintain time carefully. Like during our morning scrum meeting, we need to join the meeting at a specific time otherwise we are marked as absent. During the product release period, we sometimes had to work overtime and even had to work on weekends to meet the deadline.

- **Critical Thinking:**

I worked on a production-level application during my internship, so when I try to solve a particular problem in the project I need to solve it in the most efficient and optimized way possible so that when a huge number of people come to the website, the website shouldn't face any kind of latency or performance issues. At the same time, my implementation should be reusable and easily understandable so that if I or my team members need to use the same implementation or functionality in any other place, they can easily use it without any issues. I believe solving a lot of real-life business problems makes me a better developer than I was before.

- **Accountability:**

If I implement a functionality or develop a UI and if it breaks or something goes wrong in production, then it's my responsibility to come forward, accept my mistake, and solve that mistake. I just can't push the mistake to my superiors or other team members to solve this for me. I think it makes me more accountable for my work at the same time makes me diligent in my work.

- **Patience:**

Throughout my internship journey, I have had to spend a huge amount of time for solving business problems in the most optimal way possible as well as solving lots of bugs and issues. And of course, the process wasn't easy. In order to find a solution, I had to cope with a lot of challenges and impediments. This process taught me that the most important person you'll ever have to be patient with is you.

5.3 Additional Learning

The technologies that have been used in the projects I already knew all these. So my mentor asked me to learn some additional topics which were not directly related to my work, but some of the things that I should know as a software developer.

- **Database Design:**

During my last month of internship, my mentor showed me the database design of the Ebidaloy project. Up until then, I only read about database design. But seeing how developers design a production-level application helped me to understand database design more precisely.

- **Docker:**

Docker is a software platform that allows you to build, test, and deploy applications quickly. Software is packaged by Docker into standardized units called containers that contain all of the necessary code, libraries, system tools, and runtime. Although I did not directly work with docker, only read about this and then saw how the team implemented this in the project.

- **Nginx**

Nginx is an open-source web server software that serves as a reverse proxy, HTTP load balancer, and email proxy for IMAP, POP3, and SMTP. The company used Nginx in the project as a web server. Similar to docker, I only read about how Nginx works but did not use it practically.

- **Proxy & Reverse Proxy**

A reverse proxy proxies on behalf of servers, whereas forward proxy or just proxy proxies on behalf of clients (or requesting hosts). Basically, a reverse proxy receives requests from external clients on behalf of the servers located behind it.

- ~~Vim Basics~~

Vim is a text editor. We can write notes, reminders, and emails in it. Though most of the users use it for editing source code files. Vim emphasizes mouse-free interaction. Using various modes, we can efficiently use vim.

- ~~Typescript Basics~~

Static typing has been added to TypeScript, which is a syntactic superset of JavaScript. This essentially means that TypeScript enhances JavaScript by adding syntax, enabling developers to add types.

6. Team Involvement

Although my internship was for a full-stack development intern, I worked as a front-end developer on two of the project.

1. Ebidyloy project:

I spent most of my time working on this project. This is a public application and you can access the website from this link: [Ebdialoy](#). This is an EdTech-based application. Ebidyloy project is available on android, ios, and web platforms. There are near about 10 engineers working on this project. I worked in the web team as a front-end developer.

2. WebGym project:

This project was started just a month before my departure from the company. As this project is quite new so I can't provide any details about this project as per the company's policy. I worked for 2 to 3 weeks on this project as a support engineer. Currently, five engineers relentlessly working on this project.

The company usually asked the interns about tools and technologies they preferred to work with. Because I already had experience working with Javascript, they assigned me to a team who works with Javascript-based frameworks.

6.1 Overview of the team

The Ebidyloy team consists of near about 10 highly skilled and experienced engineers. As Ebdialoy is available on Android, iOS, and Web platforms, there is multiple sub-team in this project to handle work on those platforms. I mainly worked on the web team as a front-end developer. A breakdown of all team members is given below

- Frontend Team (3 Members)
- Backend Team (2 Members)
- Dev-Ops Team (1 Member)

- Design Team (1 Member)
- QA Team (3 members)

There were also some support engineers in the team who are not permanent members but sometimes work in different teams in case of any emergencies.

For the WebGym project, there are mainly five engineers who actively work on the project. The team overview is given below

- Product Development Team (1 member)
- Product Design Team (1 member)
- Software Engineering Team (3 members)

I worked as a support engineer in this project to help the team to migrate the website to a different technology as well as fix some front-end issues and bugs.

6.2 My Influence as an Intern

Although I was an intern at DreamOnline Limited, the company always treat me like a full-time employee. They always respected my opinions, wanted to hear what I want to say, and provide me with constructive criticism about my work. As a member of the team, I always had to fulfill several responsibilities -

- Solve my assigned tasks.
- Give feedbacks to my team members' work
- Review UI and Ux
- Report any issue and bug that I can find in the project
- Join all team meetings and discussions on time

6.3 My contributions in Ebidyaloy Project

- **Implement Features and Functionalities**

So basically Ebidyaloy project has three modules. One for students, one for teachers, and one for management. During my stay in the company, I and my team fully developed all the UIs and implemented all functionalities of the management module including authentication and authorization workflow which has more than 100 pages.

- **Example of My work**

Some of the functionalities I developed include

- CRUD (Create/Read/Update/Delete) operations of the class Scheduling system.
Basically, users can do all the operations related to the schedule on the website
- CRUD operations of the attendance system. Add the functionalities so that a student can give his/her attendance, teachers can take attendance and management can have all the records of attendance.
- Routine uploading in CSV or Excel format as well as creating custom dynamic routines within the website
- Setup class and sections of a class
- OTP registration and verification
- Handling push notifications
- CRUD operations of class-related notices
- Handling class enrollment
- Create a custom carousel. This carousel component is independent and reusable

- **Bug and Issue Fixing**

I solved a lot of bugs and issues that were encountered by my manager and QA team. During this, I faced a lot of hurdles. But solving these bugs and issues makes me more confident as a developer.

- **Review UI/Ux**

I need to constantly review UIs and functionalities that my other team members developed. If issues were found, I need to inform them about those issues as well as give them feedback about their work.

- **Support Team Members**

I also help my team to solve some of the issues and bugs they were facing. At the same time provide feedback on their work.

- **Research and Development**

For implementing some of the functionalities, I had to go through a research and development process. For example, at a point, I need to implement a carousel in the Ebidyaloy project. But because of the custom design, I can't just directly use a 3rd party package for implementing the carousel. So to implement a carousel in the project, I had to first learn how a carousel works under the hood, and then I incorporated those techniques in the project to implement the carousel. At the same time, I need to make this carousel component reusable and customizable so that I and my team members can use it when the need comes.

The majority of my time has been spent on the Ebidyloy project. I learned a lot of things working on a production-level application. Solving a lot of real-life business problems helps me to expand my knowledge and strengthen my front-end skills.

6.4 My contributions in WebGym Project:

- **Migration to a different Technology**

WebGym was started just a month ago before my departure from the company. WebGym project's team consists of members from both Japan side and Bangladesh side. When I joined the team, the basic layout like the landing page, log-in, and registration pages was already developed. But these were originally built with vanilla javascript and jquery. So the company asked me to help the team to migrate this website

to a react site. I spent a good portion of time on this project and successfully migrated all the existing pages from the vanilla javascript website to a react-based website.

Also, the team was struggling to fix some of the bugs and issues in the project. I help them to understand the reason behind the occurrence of some bugs and solve those bugs as well.

- **Create Scalable Codebase**

I also worked on creating a scalable structure for the codebase that follows best practices. This will eventually help the team to add new functionalities to the site in the future.

This project is still under development so I can't share any more details about this project as per the company's policy.

6.5 Achievements

During my stay in the company, I worked on two projects. I gave my best to complete all the tasks that were assigned to me. And because of my hard work, dedication, and skill, the company offered me to join the company as a Junior Software Developer. Unfortunately, I had to decline the offer as I still have to complete my academics. But the company kept their door open for me so that I can join the company after my graduation if I want.

Conclusion

The internship at DreamOnline Limited was my first experience working in a software company. It gave me everything an engineering graduate student could ask for. I collaborated extensively with management, field engineers, scrum team members, and software developers. This gave me the opportunity to develop not only my teamwork abilities but also my interpersonal and collaborative skills.

Amongst other tasks, I was totally responsible for the development of the software throughout the cycle. As a result, I was highly particular and detail-oriented about everything. By doing this internship I get to know how a product is built, the allocation of work as well as the time and budget concerns of a project. Before my internship, I always believed that software engineering is all about coding, but now this belief of mine is broken. There is a lot of thinking going on before building software and solving a problem in software engineering.

From a technical point of view, I worked with various tools and technologies in this internship. This internship was incredibly beneficial for me because it has given me the opportunity to learn about new working cultures and advance my technical skills. I solved a lot of real-life business problems during my internship. Definitely, the road wasn't easy. I faced plenty of challenges and limitations but I was able to overcome all the hurdles.

As an intern, it was a great experience working at DreamOnline Limited. I am grateful to the Department of Computer Science and Engineering of Islamic University Technology (IUT) for this experience. Because of this experience, I am able to link my academic and professional development and gain an understanding of the significance of the university courses we all took. I also came to understand my weaknesses and the areas I'll be focusing on to improve as a person and a software developer.

I am satisfied with the work accomplished and the impact made at DreamOnline Limited. I'm confident that this internship is a crucial milestone in the development of my career in the profession.

References :

[1] <https://dreamonline.com.bd/>

[2] <https://www.dreamonline.co.jp/en/index.html>