Course Code: SE-431

Course Name: Final Year Thesis/Project/Internship

Internship at DataSoft Systems Bangladesh Limited

Supervised By

Ms. Nusrat Jahan

Assistant Professor,

Department of Software Engineering

Daffodil International University

Prepared By

T.M Moeen Uddin

ID: 191-35-2663

A report submitted in partial fulfillment of the requirement for the degree of

Bachelor of Science in Software Engineering

Department of Software Engineering

Daffodil International University

Approval

This thesis/project titled on "**Internship**", submitted by **T.M Moeen Uddin (ID: 191-35-2663)** to the Department of Software Engineering, Daffodil International University has been accepted as satisfactory for the partial fulfillment of the requirements for the degree of Bachelor of Science in Software Engineering and approval as to its style and contents.

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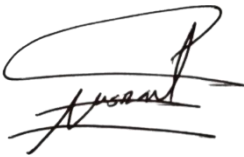**Managing Director**
Tecognize Solution Limited

DECLARATION

I thus certify that the internship report, "Internship on Full Stack Software Development by DataSoft," was written by me as an original piece of work under the guidance of "Nusrat Jahan," Lecturer; Department of Software Engineering, and was based on my four months of internship activities

The report is distinctive and hasn't been filed anyplace for any academic reason. I also gathered and arranged the statistics and information that are given here.

In order to partially meet the criteria for the Degree of Bachelor of Science, this report is presented to the Faculty of Science & Information Technology Department of Software Engineering at Daffodil International University.

Supervised by:

Department of Software Engineering,
Daffodil International University
Submitted by:

Submitted By:

T.M Moeen Uddin ID:
191-35-2663
Batch: 28
Department of Software Engineering
Daffodil International University

ACKNOWLEDGEMENT

First of all, I want to express my gratitude to the Almighty God for providing me the opportunity to survive the last year.

For her help and counsel during my time in college, Nusrat Jahan, Head of the Department of Information Technology Management and Senior Scale Lecturer in the Department of Software Engineering at Daffodil International University, deserves my sincere gratitude.

I also want to express my thanks to each and every one of my coworkers at DataSoft.

Finally, I'd want to express my gratitude to all the academics whose writing, research, and use of models allowed me to finish this time.

Table Of Content

Appointment Letter

DataSoft ®NEXT
Building a SMART Tomorrow

DSSBL/INT/2022
July 26, 2022

T.M Moeen Uddin
Tolarbag, Mirpur-1
Dhaka, Bangladesh
Mobile: +880-1785553517
Email: umoeen3@gmail.com

Subject: Placement of Internship.

Dear Mr. **T.M Moeen Uddin**

Greetings from DataSoft!!!

In reply to your application request, we are pleased to offer you an Internship opportunity at DataSoft Systems Bangladesh Limited. Please find the following confirmation of the specifics regarding this program.

Start Date: **July 24, 2022.**
End Date: **November 24, 2022.**

Reporting Relationship: Sagar Chakraborty, Senior Software Engineer, DataSoft Systems Bangladesh Limited.

Responsibilities: Day-to-day responsibilities, projects or assignments.

Number of working Hours: Nine (9) hours (9:00 AM to 6:00 PM) per day.

You will be responsible to perform the assigned project-related work given by your supervisor. As an **Intern,** you can enjoy free snacks and lunch facilities from the office premises.

Regards

Md. Maniruzzaman Shakil
Assistant Manager, Human Resources Department
DataSoft Systems Bangladesh Limited

Data Soft Systems Bangladesh Limited

Rupayan Shelford (Level 19, 20), 23/6, Mirpur Road, Shyamoli, Dhaka-1207,
Bangladesh. Phone: +880-2-58151538, +880-2-58151542, +880-2-48121377.
Email:info@datasoft-bd.com web:www.datasoft-bd.com

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Chapter 1: Introduction

1.1 Introduction

A well-known option for students to broaden their experience while learning from other viewpoints is through an internship. During this internship, students learn a wide range of skills from many organizations, which will substantially help them enhance their theoretical and practical knowledge. As we become older and have access to more advanced facilities, computers play a bigger role in our lives. Software engineering is a promising career path and current craze. In the current market environment, I want to start building my career right away. It was a wise choice for me to join DataSoft Systems Bangladesh as an intern in order to advance my knowledge and abilities. I owe a lot of gratitude to my college professor for the excellent lessons she gave me. I'm also appreciative of the group that helped me out. I have completed several projects using a variety of languages and tools throughout my time in college, including Java, React, Node, Express, MySQL, and MongoDB. I feel ready to take on any difficulties at this point and have a great career.

1.2 Background

Internship programs provide a special environment for laying the groundwork for a new career, learning about corporate culture, obtaining real-world experience, honing key skills, and providing the potential to land long-term employment with the host firm and other companies.
Daffodil International University offers undergraduate "BSc. in Software Engineering" degrees. The curriculum requires that we do an internship with a reputable company as undergraduate students. I'll get practical training in working practices and understanding of the sector throughout this period. As part of my internship program, I worked at DataSoft Systems Bangladesh for four months as an intern software engineer.

1.3   Motivation

As a student in the software engineering department, I wanted to learn how to develop, produce, and maintain software with the greatest degree of quality. The university is where we learn the fundamentals of software development. We are unable to understand how they operate in actual business, though. Hence, the need for an intern position. Even though the industry is currently highly competitive, I was particularly interested in working in the software industry. I enrolled in the internship program in order to have a better understanding of how an IT firm functions and how they really design, develop, and manage software. Before I started working as an intern, I was a novice who wished to get more knowledge and make some creative works. Thanks to this internship, I now have the opportunity to learn more and advance my career in this industry.

1.4   Objective

This report's major goal is to complete the BSc program's requirements and to present the knowledge and information that were acquired throughout the organization's internship period.

The other important purposes are as follows:

- Describe the organization and the standards it upholds.
- Writing and maintaining codes.
- Working on bug fixes.
- Responding to the request from developer team.
- Working on documentation.
- Acquiring new technology.
- Strong understanding of website design.
- Improve problem-solving skills
- Be a good team player and develop administrative abilities.
- To retain professional ethics and ideals while improving technical proficiency.

1.5   Scope of the study

This internship report's main objective is to demonstrate the knowledge and information acquired during the internship term with the organization while also meeting the requirements of the undergraduate BSc program. During my time here as an intern, I've learned about my responsibilities as an employee, including how to do my work quickly and professionally. I've covered the business, its services, products, working environment, culture, and policies in this essay. The second section of the report discusses how I began my internship and the kind of work I did during this time. Software Development and How to Use Different Tools and Practices in the Software Development Life Cycle are covered in the third section of the paper.

1.6   Limitations

To begin with, I must state that due to the terms of the contract I was required to sign when I joined DataSoft Systems Bangladesh and the nature of the contracts DataSoft Systems Bangladesh has with its clients, I am unable to disclose certain information about the company, its goods and services that is considered sensitive business information. Moreover, a number of constraints, including a lack of time and money, have decreased my output.

Chapter 2: Company Overview

2.1 About

DataSoft has been a CMMI level 5, ISO 9001:2015 certified leading software product and services company in Bangladesh. Since 1998, DataSoft has successful track record of delivering innovative and cost-effective technical services to customers in both Corporate and public sectors undertakings.

The story of DataSoft is as powerful as the story of its country of origin- Bangladesh. Established with the mission to maintain the status of leading software solution provider ensuring benefit of customers, shareholders and employees, DataSoft vision to deliver quality solutions to build The Digital Delta powered by innovation and guided by integrity. Like the remarkable growth of the economy of Bangladesh, DataSoft has also wondered its clients and stakeholders with amazing results, by building world-class capacity to deliver world-wide solutions. With operation spanning across three continents, DataSoft is now a global solution provider.

Since 1998, DataSoft has successful track record of delivering innovative and cost-effective technical services to customers in both corporate and public sectors undertakings. Our customer includes number of Fortune 500 companies and offering mission critical public services IT services like e-Payment, Customs House Automation, Port IT operation (CTMS), automation of commercial banks, touching millions of lives. As a company, we have contributed significantly to the digitalization of Bangladesh by designing and implementing critical projects like Chittagong Port Automation. DataSoft was the IT partner of the most complicated scientific project in the history of Bangladesh- the Jute Genome Project. DataSoft also touched the lifestyle of the rural population of Bangladesh by offering comprehensive solution for the world-famous Micro Credit Solution of Bangladesh.

Today, DataSoft is a pioneer of working with latest technologies that help us imagine tomorrow. As a CMMI Level 5 Company, DataSoft has a strong IoT, AR, VR portfolio and are working relentlessly on AI and Machine Learning Projects.

2.2 Company Profile

DataSoft has been a CMMI level 5, ISO 9001:2015 certified leading software product and services company in Bangladesh. Since 1998, DataSoft has successful track record of delivering innovative and cost-effective technical services to customers in both Corporate and public sectors undertakings.

2.3 Mission

Delivering high-caliber solutions while being driven by innovation and ethics will help to create The Digital Delta.

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2.4   Vision

- To continue to be the top provider of software solutions while protecting the interests of customers, shareholders, and employees
- Enhancing, sharing, and utilizing the extraordinary experience, skill, and knowledge of all of our personnel.
- Building a strong foundational competency in project management and process development

2.5   Value

- **Customer satisfaction is paramount to business success**

  Consequently, we aim to surpass customers' expectations.

- **DataSoft is result oriented**

  Therefore, we aim for constant progress through ambitious, achievable goals.

- **We are committed to innovate**

  Because innovation has the potential to change how our customers conduct business

- **Great teams build great companies**

  We therefore try to draw in, develop, and keep top talent.

- **Aspire to Lead**

  By establishing examples that others can follow

- **Honest and Fair**

  In our interactions with clients, partners, shareholders, and one another's shareholders.

2.6   Department Hierarchy

According on the assignment, DadaSoft offers a variety of departments. The divisions are

- **Service & Customer Department:** A customer service representative interacts with clients of a company to answer questions about goods and services and to give information. They also respond to and help resolve any consumer issues. Typically, customer care agents collect this information over the phone.

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- **Business Development:** Business development involves coordinated management, strategic marketing, and sales abilities, as well as the cooperation of ALL staff members, including the CEO, project managers, the sales team, and development team. This is especially true in the technology sector.
- **Marketing Department:** DataSoft is advertising themselves through this section. This section also offers post-purchase assistance to the clients.
- **Human Resource Department:** HR is the name given to the division of a corporation entrusted for recruiting, developing, and maintaining staff (human resources). These professionals create policies and make sure that employees are content in their jobs. HR is essential to a software company's ability to hire highly skilled software experts.
- **Network Department:** This department oversees the network department of the company such local server management and sometimes project network system designing and testing.
- **Infrastructure Department:** The systems and people who make up an organization's core are designed, installed, maintained, and retired by the infrastructure department.
- **Software Development Department:** All the software is developed and maintained under this development. Every software engineer, developers are under this department.

2.7 Services of DataSoft Systems Bangladesh

DataSoft offers its domestic and international clients a wide range of top-notch services. These are the services:

- **Software Development Solutions:**
  DataSoft offers both specialized services and a world-class product portfolio to both profit-making and nonprofit organizations. by creating effective solutions that are tailored to the unique requirements of a broad range of our clients globally.
  DataSoft has modified the CMMI L5 project management process in accordance with global standards. Additionally, DataSoft has a small group of qualified experts that work tirelessly to develop and build new services for all of its clients.
  .

- **Software Testing as A Service:**
  DataSoft offers software testing in addition to software development. The testing engineers have a lot of expertise testing on both mobile and web platforms across many industries. DataSoft has a stellar track record of customer involvement and service delivery up to this point.
  DataSoft specializes on leading edge technologies including IoT and Virtual Reality, as well as Fintech, MNCs, Port & Logistics. Over the years, we have worked with companies like Bangladesh Police, bKash, MetLife, Pedrollo Group, SDF, USAID, and several other national and international organizations to provide software testing services.

- **System Management & Implementation:**
  DataSoft assists you in selecting the proper software that complies with all requirements and regulations and offers ongoing maintenance support. Conversion with DataSoft is affordable, quick, and results are guaranteed.

- **DataSoft Advisory Service:**
  Additionally, DataSoft offers advisory services in response to the shifting demands of its customers. Considering their requirements and what they need to develop further.

- **Infrastructure as a Service:**
  Even the most complicated and demanding enterprises can rely on DataSoft's uninterrupted IT infrastructure. Advanced Data Centers, Cloud Management, and other IT Infrastructure assistance are all included in the package.

- **Education & Training:**
  By offering top-notch learning, DataSoft assists clients in strengthening resources, developing skills, and enhancing team and organization performance on the job.

2.8 Products

DataSoft has a wide spectrum of products to cater your specific business needs. Some of them are as follows:

- Financial Ecosystem
  - MicroFin 360
  - Pay 365
  - AML Solution Suite

- Port & Logistics
  - TIMS
  - Port Management

- Virtual Reality
  - Cricket Simulation Game
  - Engine Assembly Simulation

- ERP-Smart Enterprise
  - Smart HRM
  - Smart Parole
  - Smart Assest

- Marketplace
  - E-Micromela

2.9   Contact Detail

DataSoft Systems Bangladesh Limited

Address: Rupayan Shelford (20th Floor), 23/6, Mirpur Road, Shyamoli, Dhaka-1207, Bangladesh.

Phone: 880-2-58151538, 880-2-58151542, 880-2-48121377, 880-2-48115029

Email: info@datasoft-bd.com

Website: http://datasoft-bd.com

Chapter 3: Company Culture and Carrying Out

3.1 Working Environments

The workplace is important for establishing a successful career. This workplace has a great working atmosphere. All of my coworkers are kind and friendly. Everyone has a space of their own. The office offers every piece of gear a person may possibly need

.
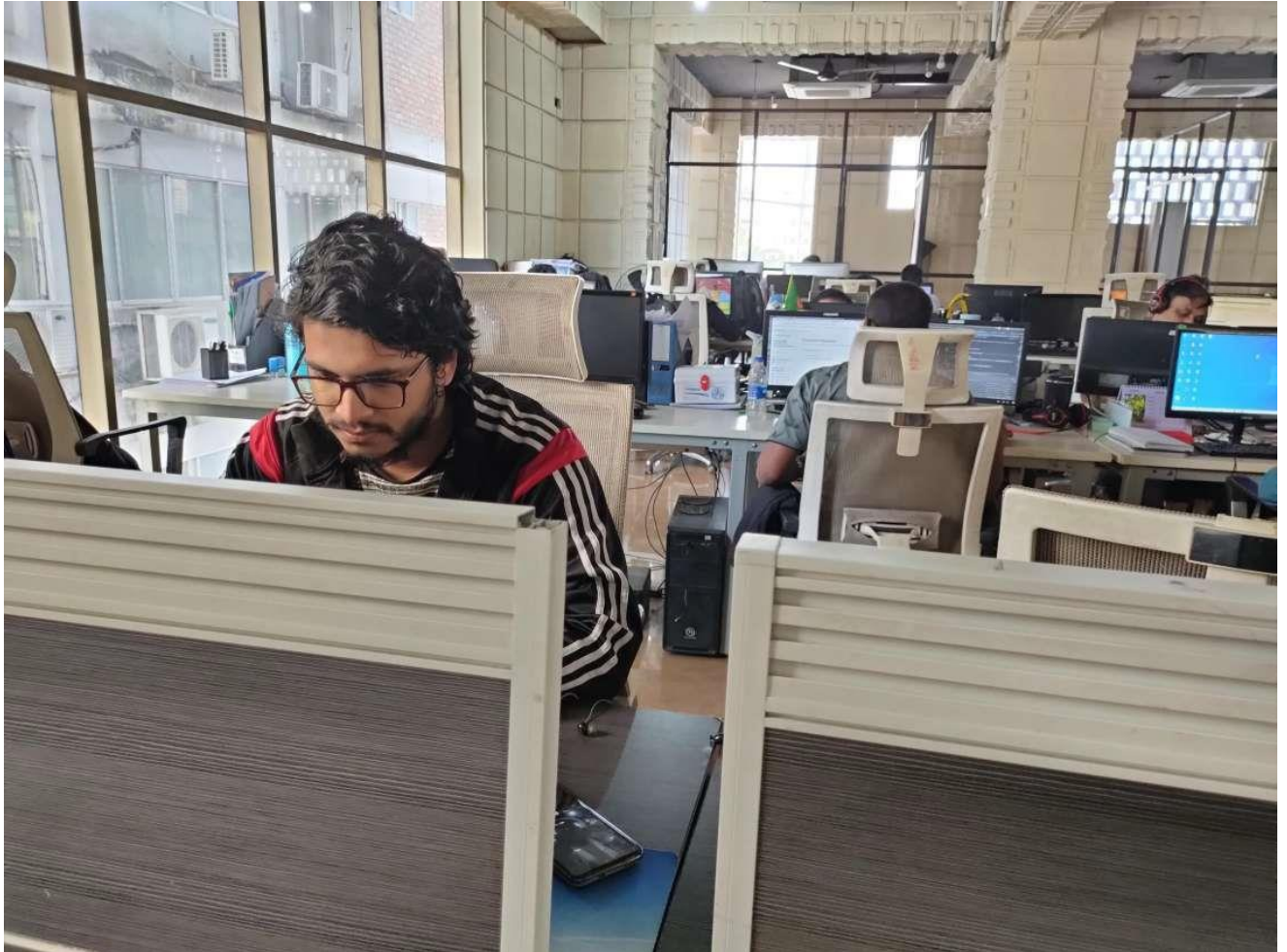
3.2 Rules and Regulation

The employer's policies may occasionally be broken by employees. Even when one employee violates the rules in good intention, it negatively impacts the productivity of others. DatsSoft employees are subject to a certain set of rules and regulations that must be observed at work.

3.2.1 Flexibility

DataSoft abides by a set of somewhat stringent rules. The majority of the time, breaking a rule without endangering other people or the project the person is working on is not disciplined.

3.2.2 Semi-Formal Attitude

Employees are urged to treat one another with respect and in a friendly manner.

Teams that operate internally and don't need to interact with clients should dress semi-formally, whereas teams that interface with external organizations should dress professionally.

3.2.3 Office Schedule

The working hours are very flexible for the employees. The recommended time for employees to come at work is between 10:00 and 10:30 AM and to leave at least eight hours later. Additionally, lunch, prayer, and snack breaks are provided. The employee may ask for a leave of absence if they urgently need one and it is not necessary for their job. Employees have the option of working remotely if necessary.

3.2.4 Responsibilities

Everyone is given their own tasks to complete, thus each person is accountable for his or her own work. There is other more duties such as:

- Using tools and equipment carelessly could result in damage to office property.
- As soon as possible, any significant loss or harm to company property must need to informed.
- Other private items must only be handled with his consent.

3.3   Recruiting Policy

DataSoft approached me for a casual interview where I was asked about my academic interests and personal preferences by HR and a senior project manager. A senior software engineer questioned me about the subjects I had studied in college, the technologies I was using at the time, the subjects I wished to study, and some interview questions to evaluate my skill sets after the informal interview. The interview was cordial, and I was warmly welcomed. A few days later, they called me to officially let me know that I had been hired. They then asked me to join and start working right away.

3.4   Getting Started

I started working with DataSoft Systems Bangladesh as an intern on July 24, 2022. This month has given me a lot of new development skills and knowledge that will be useful when I launch my IT career. Additionally, I get knowledge about client sites. This intern taught me what I needed to do. I'm quite appreciative that I had the opportunity to do the internship.

3.5   Evaluation Process

In order to offer me assignments, monitor my progress, and assist me in overcoming some of the difficulties I had during the first part of the internship term, a senior software engineer was designated as my mentor. Each assignment I had to accomplish had a soft deadline. I received some feedback for improvement based on my progress. I was given instructions by software engineers and project managers to execute tiny changes of code that had stringent deadlines after becoming familiar with the system and how everyone works.

Chapter 4: Software Development Life Cycle and Overview

4.1   Software Development Life Cycle

Software development life cycle is referred to as SDLC. A software development life cycle is essentially a set of phases that serve as a framework for the creation and administration of an application or piece of software.

Every firm has a different SDLC process strategy. To plan, design, construct, test, and deploy systems, engineers use a software development life cycle, which is composed of a number of separate work phases. An SDLC seeks to offer systems that progress through each clearly defined phase within the anticipated time frame and at the lowest feasible cost, producing high-quality systems that meet or exceed customers' expectations and satisfy their needs. Anything that is created on an assembly line is comparable to this.

The SDLC processes that are typically employed include waterfall and agile. The waterfall technique is more conventional and begins with a comprehensive plan and a certain set of criteria, whereas the agile SDLC starts with less stringent guidelines and then makes alterations as needed. Agile development is noted for its short turnaround times that enable it to swiftly change an application from a prototype to a final product at practically any stage, making it more appropriate for applications that are often updated or improved.

Most of the software are being developed in agile SDLC but if a software is much more crucial and won't be changing its features then waterfall SDLC is used.

The SDLC typically includes six steps. The steps are following:

- Requirement Gathering and Analysis
- Design
- Implementation
- Testing
- Deployment
- Maintenance

Requirement Gathering and Analysis: At this point, business needs are gathered. This phase is when the project managers and other key players are mostly concentrated. Numerous meetings with managers, stakeholders, and users are held to establish the requirements, including who the system's users are, what data should be fed into the system, and what the system should produce. All general queries are made at this stage. After gathering all the criteria, each one is analyzed to verify its legitimacy and viability for inclusion in the system that will be developed. Finally, a paper detailing the criteria is created as a set of recommendations for the model's next stage.

Design: The first phase's necessary requirements are utilized to prepare the second phase's system and software design. System design helps in figuring out the hardware and system requirements as well as the overall system architecture. The system design specifications are used as input in the model's subsequent phase. In this phase, testers create test strategies that outline what should be tested and how it should be tested while UX designers give suggestions.

Implementation: The task is separated into pieces during this phase, and real coding is started. The major priority for software engineers at this period is the production of the code. This is the stage of the software development life cycle that lasts the longest.

Testing: To ensure that the program is truly solving the issue it was designed to, the code is tested against the requirements after it has been written. All functional and non-functional requirements are tested during this phase, along with unit tests, integration tests, system tests, and acceptance tests.

Deployment: Once the testing process has been successfully completed, the application is tagged for shipping and then distributed to the production servers or app stores so that actual consumers may use it. Depending on the client contract, the client may also include the best testing with consumers here.

Maintenance: As soon as users begin utilizing the system, a real issue arises and periodically has to be resolved. Maintenance is the procedure where the developed product is looked after. The length of this phase will depend on the agreement with the client.

4.2   Overview of My Tasks

The following is a general summary of my internship-related work.

I was given some literature to read for the first few days so I could learn about their coding strategy and design process. I was given the task of producing documentation for an ongoing project once the research was finished.

Later, I was given the task of developing a portion of a website where I had to obtain sophisticated data from the back-end and use them to generate certain pages and a chat-like representation. Initially, I was given the task of developing some front-end pages for a project..

I was then given the task of extracting public data. I have some free time to learn a scraping framework for this.

Then I was required to study Django and the Django Rest Framework and produce a tiny project. I was given a project to work on after finishing the first one where I had to address a system's authentication and authorisation. I created some API for the system as well.

During this learning phase, I was given a task by a field engineering team to install software, perform KMNS simulations, and collect data from various machinery..

Chapter 5: Roles and Responsibility

5.1   Training and Knowledge Sharing

Each aspect of a new project is described by the project manager after it is start to developed. It is made obvious how to begin, what to accomplish, and what is required in order to focus on that project. Additionally, a comprehensive spec sheet is supplied for greater comprehension.. Every day before we begin working, the project manager gives us a briefing. If I receive a project, this is tremendously flexible for me.

5.2   Projects
In this part, I'll discuss the projects in which I was involved.

5.2.1 Project 1(Ai in Arts)

This project is based on AI. It is really a new business initiative for our organization that is an NFT selling website. Here An NFT can be made by a vendor and uploaded to sell. He may create a variant of his NFT utilizing AI and sell it here..

My Task:

- I was given the assignment of making 4 pages for this website.
- To make the specified pages, I was given the Figma design file.
- They did not provide any API end point because of security reasons, so I took some pictures and made kind of a template for the pages.
- Since this project requires the management of states, I had to put up a redux store for the website.
- Implement slow loading

Technologies:

Front-End: React, CSS3

Back-End: Python, Django Rest Framework, MySQL

Challenges:

I first had difficulty gathering images and translating the figma file because it was poorly marked up and no API was available. The creation of the redux shop is another hurdle I confront. because I had never used it before. I had to learn it first, then use it. I too ran into issues while trying to create lazy or delayed loading.

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5.2.1.1   Ai In Arts UI

Login Page

Sign Up Page

5.2.1.1   Ai In Arts UI

Landing Page

Buy Original Image

Featured Collection

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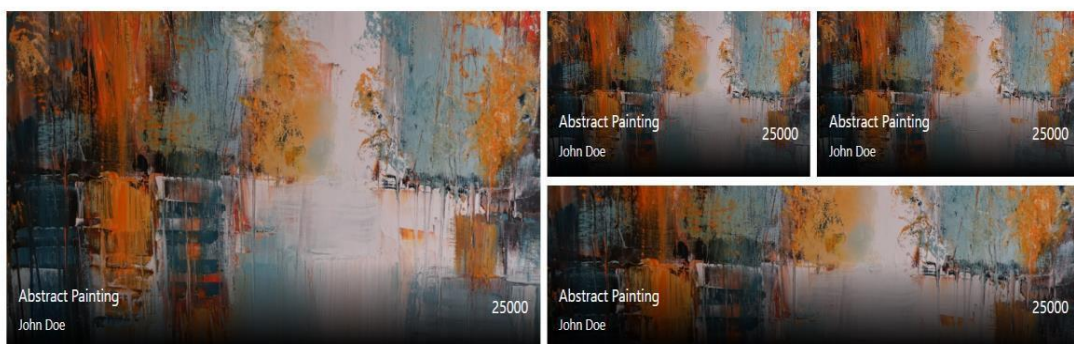
Featured Artist
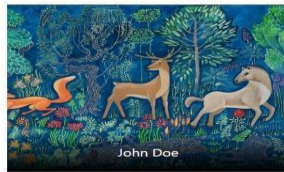
John Doe

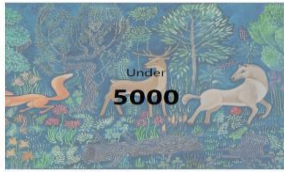John Doe

John Doe

John Doe

Shop by Price

Under **5000**

Under **5000**

Under **5000**

Under **5000**

Find Art You Love

It is a long established fact that a reader will be distracted by the readable content of a page when looking at its layout. The point of using Lorem Ipsum is that it has a more-or-less normal distribution of letters, as opposed to using 'Content here, content here', making it look like readable English.

New Perspective 2022

Abstract Painting
John doe
15000

Abstract Painting
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High Quality Material

Contrary to popular belief, Lorem Ipsum is not simply random text. It has roots in a piece of classical Latin literature from 45 BC

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High Quality Material

Contrary to popular belief, Lorem Ipsum is not simply random text. It has roots in a piece of classical Latin literature from 45 BC

For Artist	**Top Categories**	**Company**	**The Steps Art**
Advertise	Painting	About	Rupayan Shelford, 20th Floor, 23/6
Artist Registration	Photography	Press	Mirpur Rd, Dhaka 1207, Bangladesh
Sell your Art	Sculpture	Careers	+880 2-9110136
Become a Verified Artist	Drawings	Contact Us	info@datasoft-bd.com
Tips for Artist	Collage	Blog	

Privacy Policy   Copyright Policy   Terms & condition

f   🐦   📷

Drag and Drop Page

5.2.2 Project 2 (AirSense)

- This project will track the quality of the air both indoors and outside. It happens instantly. The majority of it is software as a service. This technology makes it possible to monitor real-time air data including temperature, humidity, carbon dioxide, flammable gases, and volatile organic compounds (VOCs) (toxic gas). This system also displays where installed gadgets are located. User may set up several devices on their own. The new devices just need to be approved by an admin. The following list of functions includes some of them:

- Add device
- Real time monitoring
- Show historical data
- Download data as csv, pdf, xl, jgep and others format
- Show location of the device
- User management
- Devices management (user and admin level)
- Show average status on daily, weekly and monthly basis
- Filter the data according to user need
- Set interval between getting data

My Task:

- Fetch data from back-end
- Show those data on appropriate pages
- Implement filter on those data as per user
- Show graphical representation of the data with high chart library
- Show detail of the devices
- Send data to back-end after getting data from time interval
- Add device location on map.

Technologies:

Front-End: React, High chart, CSS3

Back-End: Django Rest Framework, MySQL

Challenges:

I had no trouble with the framework because I've used react before for business. However, I found it difficult to express data. I acquired knowledge of the high charts library there. The second difficulty I encountered was producing a PDF in the front end while writing a csv and other files in the back end.

5.2.2.1   Use Case Diagram
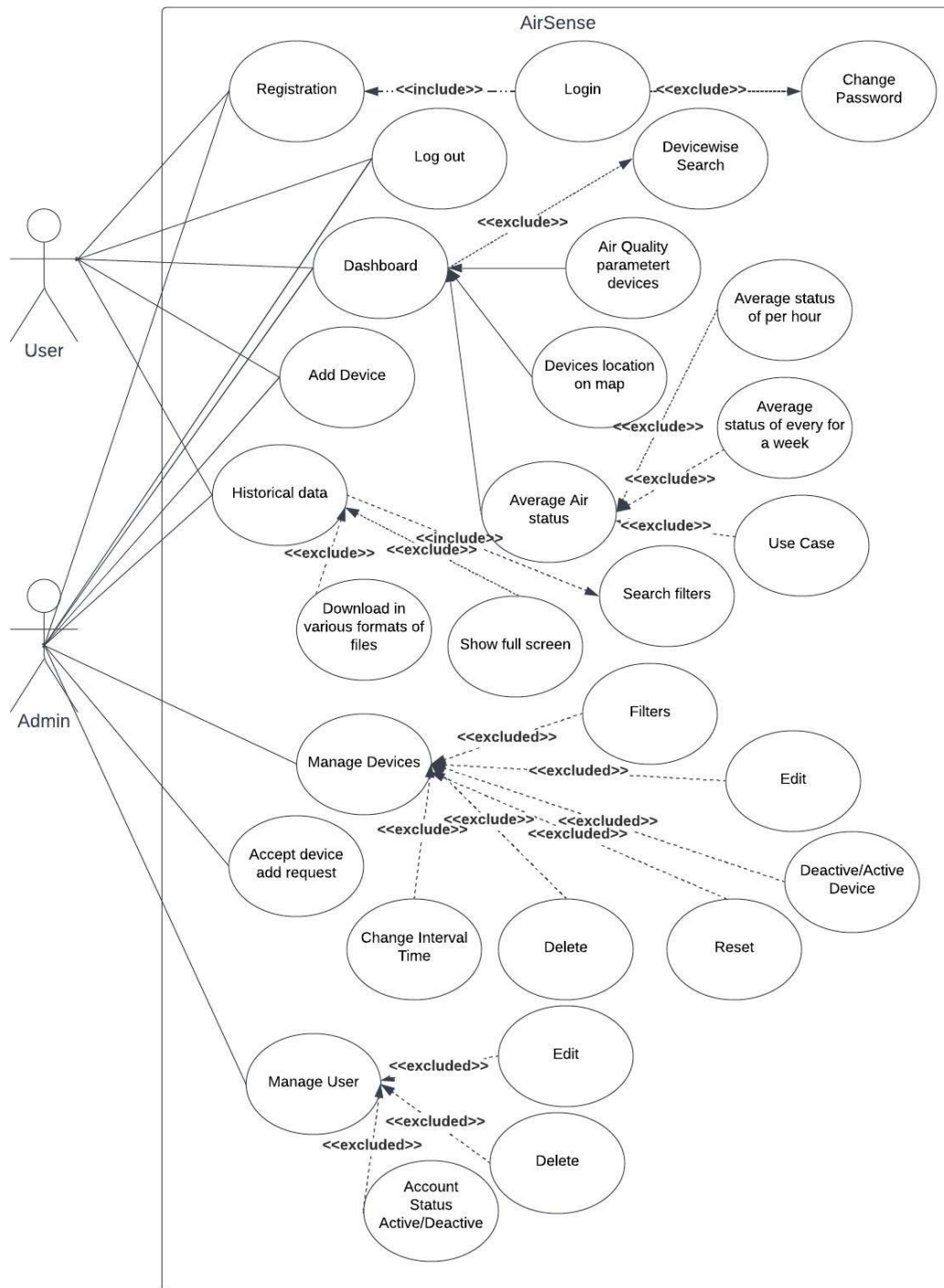
5.2.2.2   ER Diagram
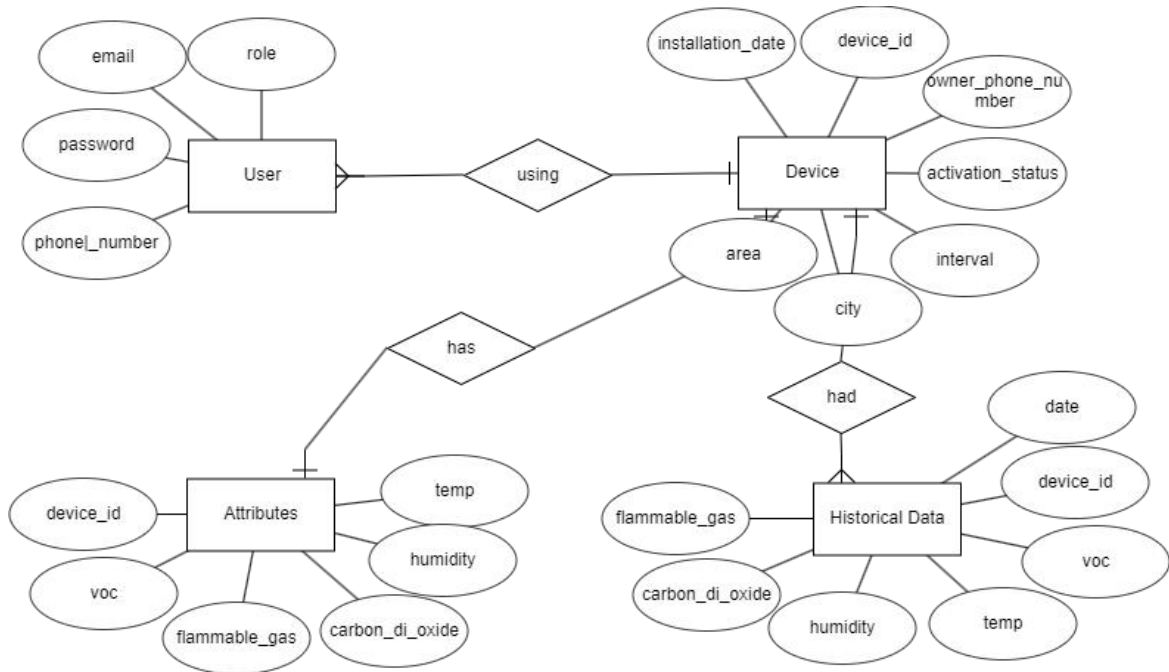
5.2.2.3   AirSense UI

Login Page

Sign Up Page

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SIGN UP

Device id

📇 e.g. db101

Phone

📞 Enter Phone No

Password

🔑 Enter Password

Repeat Password

🔑 Repeat Password

PREVIOUS   SUBMIT

Have an account? Sign in here

● ●

Landing Page

Device location

Last 24, 1 week,1 Month Average Data

Historical Data

©Daffodil International University
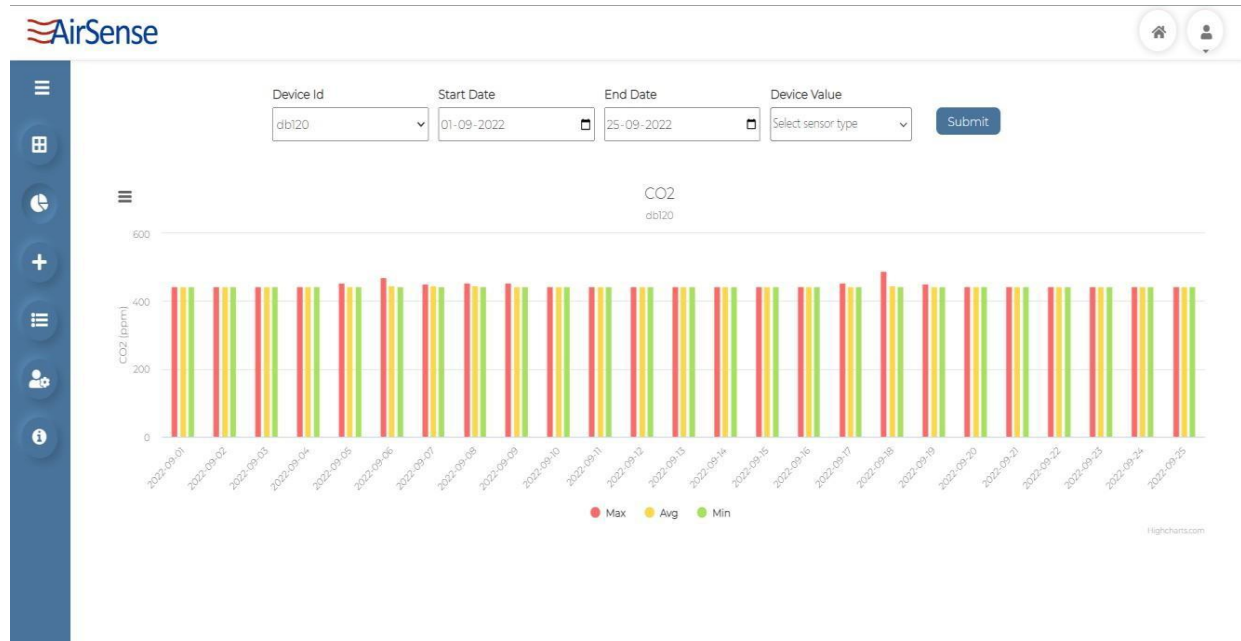
Device Registration

Device List

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User List

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Project 3 (Dhaka Metro Clearing House)

To sign the contract, I am unable to explain the project. But I provide specifics about some of my personal piece. This would not be a contract violation.

My Tasks:

- Compare the database data to the user's data after validating the database data.
- Creating .dat file
- File CRUD operation.
- User string data convert to hexadecimal .

Technologies:

Language: C++

Database: MySQL

Challenges:

I did not work before file operation with C++. Later I learned it with the help of seniors

Project 3 (Dhaka Metro Clearing House)

5.3 Other Task

I was also assigned other task beside these projects; In this section I will talk about those tasks I was assigned.

5.3.1 Documentation

At the very first of my internship I was assigned to study some documentation of software. It was going on for a week and then I was assigned to create documentation. I create user manual for a software in this time.

DHAKA MASS RAPID TRANSIT DEVELOPMENT PROJECT

MRT LINE 6

CONTRACT PACKAGE NO. CP-07

Procurement Of E&M Systems comprising of Track Works, Electrification System (Power Supply, Catenary, SCADA and Energy Storage System), Lifts and Escalators, Signaling System, Telecommunication System, Automatic Fare Collection System and Platform Screen Doors for MRT Line 6

Maintenance Manual for Card Shredder of AFC

Doc No: 07-AFC-0000-DEW-00054

Rev: 00B

Contractor:
Marubeni L&T JV
c/o Larsen & Toubro Limited
Sonargaon Janpath Block I,
Sector 16 Uttara Model Residential City (3rd Phase) Uttara,
Dhaka – 1230, Bangladesh

Employer:
DHAKA MASS TRANSIT COMPANY LIMITED
Level 14, Probashi Kalyan Bhaban
71-72, Old Elephant Road, Eskaton Garden
Dhaka – 1000, Bangladesh

C: CHCI (Clearing House and Card Issuer) P: PTO (Public Transport Operator)	In Charge CHCI(C) or PTO(P)	Target Equipment-CHCI			Target Equipment-PTO						
		Initializer	TOM	Other equipment*2	Initializer	TOM	AG	TVM	Conductor R/W	Ticket Shop R/W	Other equipment*3
Operation Method — Customer Operation											
Station Staff Operation			✓			✓				✓	
Others		✓			✓						
1. 1st Issue(New Media)	C	✓									
1.1 1st Issue(New Media) (MRT)	P				✓						
2. 1st Issue(Recycled Media)	C	✓									
2.1 1st Issue(Recycled Media) (MRT)	P				✓						
3. 2nd Issue (SVC/Personalized)	C		✓								
3.1 2nd Issue (SVC/Personalized)(MRT)	P					✓					
4. 2nd Issue (SVC/Anonymous)	C		✓								
4.1 2nd Issue (SVC/Anonymous)(MRT)	P					✓		✓			
5. 2nd Issue (SVC/ Card Version Up) SPASS to Rapid Pass*4	C&P		✓							✓	
6. Register(Season Pass/ Personalized/First Time)	P					✓					
7. Register (Season Pass/ Personalized/Renewal)	P					✓					
8. Register (Staff Pass/ Personalized/First Time)	P					✓					
9. Register (Staff Pass/ Personalized/Renewal)	P					✓					
10. Register (Coupon Ticket/ Personalized/First Time)	P					✓					

Right now, I am assigned to two projects. In one of them I am doing development, bug fixing and I am studying the documentation of the other project.

5.3.2 ESG

ESG is a business-related project, where user can see detail about a company so that they can decide if they want to invest in the company or not. There were some criteria for those data most of them had to source from the public data so, we had to scrap those data from public website. I worked on this project to gather the public data by using scrappy framework.

ExxonMob	Direct, fro	www.reuters.	https://www.re	19-09-21 00:00	SABIC, Exx The logo of Exxon Mobil Corporation is shown on a monitor above the floor of the New York Stock Exchange in New York, December 30, 2015. . REUTERS/Lucas Jackson/File
ExxonMob	Direct, fro	www.reuters.	https://www.re	2021-03-03 02:29:0	Exxon to c FILE PHOTO: Logos of ExxonMobil are seen in its booth at Gastech, the world's biggest expo for the gas industry, in Chiba, Japan April 4, 2017. REUTERS/Toru Hanai
ExxonMob	Direct, fro	www.reuters.	https://www.re	26-07-21 00:00	China's Gu SINGAPORE, July 26 (Reuters) - China has begun building a $1 billion natural gas import and storage base in the southern coastal province of Guangdong, a project in which U.
ExxonMob	Direct, fro	www.reuters.	https://www.re	26-04-21 00:00	CalPERS to A logo of the Exxon Mobil Corp is seen at the Rio Oil and Gas Expo and Conference in Rio de Janeiro, Brazil September 24, 2018. REUTERS/Sergio Moraes
ExxonMob	Direct, fro	www.reuters.	https://www.re	2020-06-12 17:11:4	Exxon wei HOUSTON (Reuters) - Exxon Mobil Corp is considering slipping the completion of an expansion of its Beaumont, Texas, refinery by up to a year into 2023 because of the impa
ExxonMob	Direct, fro	www.reuters.	https://www.re	18-02-22 00:00	U.N. pact A man stands next to a pile of plastic garbage at a market which no longer provides plastic bags for customers to carry products, in Mexico City, Mexico January 2, 2020. REU
ExxonMob	Direct, fro	www.reuters.	https://www.re	28-08-21 00:00	Exxon redu A view of the ExxonMobil Baton Rouge Refinery in Baton Rouge, Louisiana, U.S., May 15, 2021. REUTERS/Kathleen Flynn/File Photo
ExxonMob	Direct, fro	www.reuters.	https://www.re	2021-02-05 21:45:3	Exxon says FILE PHOTO: A logo of the Exxon Mobil Corp is seen at the Rio Oil and Gas Expo and Conference in Rio de Janeiro, Brazil September 24, 2018. REUTERS/Sergio Moraes
ExxonMob	Direct, fro	www.reuters.	https://www.re	2020-03-10 16:42:5	Exxon's Ba FILE PHOTO: A sign is seen in front of the Exxonmobil Baton Rouge Refinery in Baton Rouge, Louisiana, November 6, 2015. REUTERS/Lee Celano/File Photo
ExxonMob	Direct, fro	www.reuters.	https://www.re	17-11-21 00:00	China's Sin The company logo of Chinaâ€™s Sinopec Corp is displayed at a news conference in Hong Kong, China March 26, 2018. REUTERS/Bobby Yip/File Photo
ExxonMob	Direct, fro	www.reuters.	https://www.re	2021-02-08 16:04:5	Qatar Petr DUBAI (Reuters) - Qatar Petroleum (QP), the worldâ€™s top liquefied natural gas (LNG) supplier, signed a contract on Monday for the first phase of its North Field LNG proje
ExxonMob	Direct, fro	www.reuters.	https://www.re	27-02-22 00:00	Western c Summary
ExxonMob	Direct, fro	www.reuters.	https://www.re	13-06-21 00:00	EXCLUSIVE A liquefied natural gas (LNG) tanker is tugged towards a thermal power station in Futtsu, east of Tokyo, Japan November 13, 2017. REUTERS/Issei Kato/File Photo
ExxonMob	Direct, fro	www.reuters.	https://www.re	30-07-21 00:00	Exxon prol A logo of Exxon Mobil Corp is seen at the Rio Oil and Gas Expo and Conference in Rio de Janeiro, Brazil September 24, 2018. REUTERS/Sergio Moraes/File Photo
ExxonMob	Direct, fro	www.reuters.	https://www.re	03-05-21 00:00	Iraq consi Oil tankers are seen at a terminal of Sinopec Yaogang oil depot in Nantong, Jiangsu province, China June 11, 2019. REUTERS/Stringer
ExxonMob	Direct, fro	www.reuters.	https://www.re	28-02-22 00:00	Factbox: V A 3D printed natural gas pipeline is placed in front of displayed Rosneft logo in this illustration taken February 8, 2022. REUTERS/Dado Ruvic/Illustration/
ExxonMob	Direct, fro	www.reuters.	https://www.re	27-05-21 00:00	Iraq's Wes A policeman walks at West Qurna-1 oil field, which is operated by ExxonMobil, in Basra, Iraq, January 9, 2020. REUTERS/Essam al-Sudani
ExxonMob	Direct, fro	www.reuters.	https://www.re	2020-07-30 11:06:5	Energy ver AMSTERDAM, July 30 (Reuters) - NAM, a venture of Royal Dutch Shell and ExxonMobil that operates gas fields in the Netherlands, said on Thursday it did not want to use the
ExxonMob	Direct, fro	www.reuters.	https://www.re	24-09-21 00:00	Dutch con A view of a gas production plant is seen in 't Zand in Groningen February 24, 2015. REUTERS/Michael Kooren
ExxonMob	Direct, fro	www.reuters.	https://www.re	2020-05-19 06:16:3	Coronavir MOSCOW/LAGOS/LONDON (Reuters) - The coronavirus pandemic has disrupted maintenance at oil and gas projects and refineries from Russiaâ€™s Far East to the coast of
ExxonMob	Direct, fro	www.reuters.	https://www.re	2020-02-13 13:16:2	Nigeria's o ABUJA, Feb 13 (Reuters) - Cost increases and uncertainty in Nigeriaâ€™s crucial energy sector could lead to a 35% decline in oil output over 10 years as companies delay inve
ExxonMob	Direct, fro	www.reuters.	https://www.re	2020-06-26 20:24:1	Guyana sh June 26 (Reuters) - A group of 19 companies including oil majors, trading houses and state-run firms were approved by Guyanaâ€™s government for the next phase of a com
ExxonMob	Direct, fro	www.reuters.	https://www.re	2020-03-26 10:05:1	Global oil SINGAPORE/NEW DELHI/SEOUL/LONDON (Reuters) - The first oil refinery shutdowns in India and Europe were announced on Friday while global refinery runs drop like a sto
ExxonMob	Direct, fro	www.reuters.	https://www.re	11-01-22 00:00	Malaysia's Motorists queue to fill natural gas at a Petronas station with its landmark Petronas Twin Towers headquarters in the background, in Kuala Lumpur February 4, 2012. REUTERS
ExxonMob	Direct, fro	www.reuters.	https://www.re	13-01-22 00:00	Activists b Summary
ExxonMob	Direct, fro	www.reuters.	https://www.re	2020-04-09 01:58:4	Exxon use HOUSTON (Reuters) - Exxon Mobil Corp XOM.N used economic uncertainty tied to the coronavirus pandemic to urge workers at its lubricants and packaging plant in Paulsbo
ExxonMob	Direct, fro	www.reuters.	https://www.re	2020-10-28 22:56:4	Exxon Mo HOUSTON (Reuters) - Exxon Mobil Corp XOM.N on Wednesday kept its fourth-quarter dividend flat at 87 cents a share, signaling 2020 will be the first year since 1982 that th
ExxonMob	Direct, fro	www.reuters.	https://www.re	2020-10-08 01:17:3	Exxon Bat FILE PHOTO: A view of the Exxonmobil Baton Rouge Chemical Plant in Baton Rouge, Louisiana, November 6, 2015. REUTERS/Lee Celano

5.3.3 Field Engineering

In middle of the internship, I was assigned to 2 days of field engineering. This project is related to ongoing project which I am assigned to now. In this time, I had to install proprietary software to machineries, collect the gathered data from those machineries and run KMNS simulation to gather prove.

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টিকেট বিক্রয় মেশিন

Ticket Vending Machine

মোবাইল এবং ওয়েব অ্যাপ্লিকেশন
সফটওয়্যার ব্যবহার করে MRT
Pass Top Up করা যায়

AFC-TVM-S05-CL-04(1/6)

কল বাটন
Call Button

টাকা প্রবেশ করার
Insert Taka

ফেরত টাকা
Refund

টিকেট সংগ্রহ করুন
Collect Ticket

MRT Pass ট্রেতে রাখুন
Place MRT Pass on the Top

একক যাত্রা টিকেট ক্রয় SINGLE JOURNEY TICKET PURCHASE	গন্তব্য নির্বাচন করুন SELECT DESTINATION	টাকা প্রবেশ করান INSERT TAKA
	টিকেট সংখ্যা নির্বাচন করুন SELECT TICKET QUANTITY	
টপ-আপ TOP-UP	MRT Pass কার্ড ট্রেতে রাখুন PLACE MRT PASS ON THE CARD TRAY	টাকা প্রবেশ করান INSERT TAKA
	টাকার পরিমাণ নির্বাচন করুন SELECT AMOUNT	

ঢাকা ম্যাস ট্রানজিট কোম্পানি লিমিটেড
(সড়ক পরিবহন ও মহাসড়ক বিভাগ)

NIPPON SIGNAL

Chapter 6: Experience & Achievements

6.1   Overcome Problems and Difficulties

Various problems and difficult conditions are experienced while initially coding. I had never worked in an organization before, therefore I faced a variety of situations, problems, and obstacles while completing so many various assignments during an internship. Thanks to the team leader, I was able to resolve each of these problems. When a problem required manual intervention, the team leader occasionally provided documentation or videos to aid in the process. Hours passed during this period, and finally, under the direction of the team leader, certain solutions and unresolved issues were resolved.

6.2   Ability To Learn

People can change to become immortal or standardized. In my instance, I also underwent a notable transformation In one way or another, I have a great aptitude for learning. Computers made me take a class to learn about a few modern tools and technologies, which was a highly efficient way for me to learn about software development rapidly. Through this internship, I have learned more about who I am. I now know how to research any issue and learn new things.

6.3   Technology Enhancement

My internship allowed me to advance several different technologies. I was a newbie who barely learned the fundamentals before to joining. However, this internship has provided me the chance to develop and learn. I have learned C++ and many of its libraries from this experience. These experiences have taught me a lot about Python's architecture as well. Prior to this, I was only familiar with the fundamentals of Java and Java Swing; nevertheless, the internship taught me about the spring boot framework. Prior to the internship, I was only familiar with front-end web programming. Now that it has ended, I am now familiar with back-end, which will give me a head start in becoming a knowledgeable full-stack developer.

6.4   Non-Technical Growth

Non-technical skill or soft skills give a good push on carrier. Those skills help to ennoble carry out technical skill and methods.

- Positive Attitude.
- Time Management.
- Team work.
- Establish connections with other developers..
- Remain focused on tasks for long periods of time.

6.5 Achievement

Before joining at internship, I was a beginner. After going through this period of time my skills have improved a lot, which is a big achievement for me. I have learned a lot of new things from these experiences. I have explored a new path for my carrier. Now I am confident enough to go on with the carrier I wanted. I had to reached office within a certain time and complete my task within a certain time, which has improved my time management skills. Like this a lot of other skills have improved more over I have make a lot of new connections. When I first started at the company, I did not know a lot of technologies which I have overcome. I have leaned completed task and delivered, which have improved my self-confidence. They have also offered me a job as Jr. Software Developer at the company, which is a huge gain for me. All of these experiences that I have gathered from the internship will help me a lot in future to pressure my future carrier and personal life.

Chapter 7: Conclusion

7.1   Concluding Statement

My experience at DataSoft may best be summed up in one word: humble. I have broad understanding of both local and foreign markets thanks to DataSoft's strong business network, which is widespread both domestically and globally. Working there taught me how to manage my time effectively, work as a team, and conduct myself properly. This not only helped me identify the professional path I want to take more clearly, but it also increased my self-assurance. The office's learning atmosphere helped me acquire new technologies and other soft skills. The knowledge I've received over the last four months gives me much more confidence as I begin a new chapter of my life.

7.2   Recommendations

The employment market is tough for fresh graduates, especially in countries like Bangladesh. As a result, a large number of students graduate each year. However, the majority of them had trouble landing their dream jobs. The fact that they lack experience dealing with a commercial or professional atmosphere is one of the key contributors to this issue. A terrific way to be ready for the working world is through an internship.

Although having a professional career is excellent, whether it be in front-end development or back-end, one must first have a good knowledge of the fundamentals of programming.