

# REPORT ON INTERNSHIP



V2 Technologies Ltd

---

Md Muktar Hosen

BSSE 1116

Session: 2018-19

---

# REPORT ON INTERNSHIP

---

**Course Code: SE 701**

**Submitted to**

Intern Placement Office  
Institute of Information Technology  
University of Dhaka

**Submitted by**

Md Muktar Hosen  
BSSE 1116  
BSSE Session: 2018-2019

*7th Semester, BSSE 11th Batch  
Institute of Information Technology  
University of Dhaka*



*Submission date: 03 June, 2023*

# LETTER OF ENDORSEMENT


---

To whom it may concern

This letter is to certify that the report entitled “**Internship Experience**” has been submitted to me prior to final submission.

I have personally inspected and reviewed all the contents of the report and found nothing that violates the company privacy rules and regulations or exposes any confidential information. I would also like to state that the information provided here is authentic and not exaggerated.

I hereby gladly assert the validity of the report and wish a bright future for Md Muktar Hosen.



.....  
**Internship Supervisor**

Khondoker Khademul Bari  
Junior Software Engineer  
V2 Technologies Ltd.

---

## LETTER OF TRANSMITTAL

---

03 June, 2023

The Chairman

BSSE 4th Year Exam Committee 2023

Institute of Information Technology, University of Dhaka

**Subject: Submission of Internship Report**

Dear Sir,

With due respect and immense pleasure, this is to inform you about the submission of the report regarding my internship at **V2 Technologies Ltd.** which is also a requirement for the course SE 701. This report holds details of my activities and experiences at the company. However, I would also like to state that this report excludes any information that the company considers confidential.

I pray and hope that you would accept this submission as well as my efforts.

Regards,

Md Muktar Hosen

BSSE 1116

Institute of Information Technology

University of Dhaka

## ACKNOWLEDGEMENT

---

Praise be to Allah, our creator, Alhamdulillah. With Allah's blessings, I was able to successfully complete my internship session. I'd like to thank Him for blessing me with excellent health and the ability to complete my internship peacefully and successfully.

I would like to express my gratitude to the Institute of Information Technology and thank the 'Internship Placement Office' for this internship program which was undoubtedly a great experience for me.

I would like to convey my heartfelt gratitude and deep admiration to Abdullah Salman Siddique, Principal Software Engineer at V2 Technologies Ltd, for hiring me as an intern at V2 Technologies Ltd.

I would also like to thank my boss, Fahim Hasnat, Senior Software Engineer at V2 Technologies Ltd, for his pleasant assistance and constant guidance.

I also want to express my sincere gratitude and deep regards to Khondoker Khademul Bari, Amit Kumar Mandal, Zubayer Alam, Liakat Khan Babu for their friendly support, valuable guidance, monitoring and constant encouragement throughout the internship period.

Furthermore, I would like to mention my gratitude to all the good people of V2 Technologies Ltd. for the welcoming treatment and always being there to hear out every problem I faced.

---

## EXECUTIVE SUMMARY

---

The sole purpose of this report is to reflect my experiences, learnings, contributions, and overall professional development while working as an intern over the last five months at V2 Technologies Ltd.

The introductory chapter(Chapter-1) contains the general idea of my experience. The following chapter(Chapter-2) introduces V2 Technologies Ltd - its short history, mission, vision, culture, policies etc. It also integrates my personal experience in adapting to the V2's culture.

In the following chapter(Chapter-3), I discussed the projects I was assigned to in-depth. There was an initial learning period for NodeJs and JavaScript. There was one big in-house project namely "V2 RMS-V2 Recruitment Management System" in which I spent most of the time of my total internship period.

Time to time, I was also involved in some other web development projects, data classification tasks etc. I have provided descriptions of all these projects, what technologies were in use, what was the workflow and the duration of the project. In addition, I discussed the technical and non-technical skills that I acquired while working on these projects.

Finally, I concluded with the final remark about V2 Technologies Ltd highlighting both the positives and negatives according to my personal opinion.

# TABLE OF CONTENTS

<b>Chapter 1: Introduction</b>	<b>8</b>
1.1 Preface	8
1.2 Origin of The Report	9
1.3 Objectives	9
1.3.1 Broad Objectives	9
1.3.2 Specific Objectives	10
1.4 Scopes	11
1.5 Methodology	11
1.5.1 Source of Data	12
1.5.2 Data Accession Method	12
1.6 Limitations	12
<b>Chapter 2: Organization Overview</b>	<b>13</b>
2.1 Location and Physical Layout	13
2.2 Focus and Growth	13
2.3 Services	13
2.3.1 Machine Learning & AI	14
2.3.2 Business Intelligence	14
2.3.3 Data Warehousing	14
2.3.4 Android Development	14
2.3.5 Data Mining & Analytics	14
2.3.6 Web Development	14
2.4 Clients of V2 Technologies Ltd	15
2.5 Working hours	15
2.6 Miscellaneous Facilities	15
2.6.1 Food and Refreshments	15
2.6.2 Prayer Facilities	16
2.6.3 Games and Sports	16
2.6.4 Participation in the Cultural and the Religious Events	16
<b>Chapter 3: Learnings and Project Work</b>	<b>17</b>
3.1 Overview	17
3.2 Learning Phase	17
3.3 My Project Involvement and Contribution	18
3.3.1 V2 RMS – Recruitment Management System	18
3.3.2 PPL	23
3.3.3 TransformGPT	23
3.3.4 Miscellaneous Tasks	25

---

<b>Chapter 4: Skills Development</b>	<b>26</b>
4.1 Languages & Frameworks	26
Basic Javascript	26
ES6(ECMAScript 6)	26
React	26
Node JS	26
Express	26
MVC Architecture	27
Web API	27
Chrome DevTools	27
4.2 Tools & IDE	27
Table Plus	27
DBeaver	27
Postman	27
Visual Studio Code	28
<b>Chapter 5: Self-Assessment</b>	<b>29</b>
5.1 Cooperation	29
5.2 Responsibility	29
5.3 Attitude	29
5.4 Self-dependence	29
5.5 Planning	30
5.6 Punctuality	30
5.7 Negotiation	30
<b>Chapter 6: Conclusion</b>	<b>31</b>
<b>References</b>	<b>32</b>



---

## LIST OF FIGURES

---

Figure 1: Clients of V2 Technologies Ltd.....	15
Figure 1: Applicant panel job circular list page.....	19
Figure 2: Job Circular Details page.....	20
Figure 3: Application form page.....	20
Figure-4: Create or update a job circular page.....	21
Figure 5: Applicant List page.....	21
Figure 6: Applicant List as slider.....	22
Figure-7: Assign Task to shortlisted applicants.....	22
Figure 7: TransformGPT chatting page.....	24

# CHAPTER 1: INTRODUCTION

---

## 1.1 Preface

Nowadays, workplaces require the job applicants of particular positions to have some kind of ‘hands-on’ experience on the job before proceeding to the next step of candidate evaluation. This sort of requirement might not be a problem for someone who has been in that industry for a while; however, the demand for a good work experience poses a problem to someone who has just completed a Bachelor’s or a Master’s degree. For individuals who have recently stepped out of universities, internship serves as an aid in the competitive world of job hunting.

Internship is a period of work experience offered by organizations to give students and graduates some insight about the actual industry. The experience can be regarded as a demo of the real-life job situation. Students and graduates who participate in internship programs are called interns.

The nature of an internship program and the expectation of skills from an intern vary from industry to industry, organization to organization. Some sectors find a duration of a month to be adequate to groom the novice called interns. Other sectors might require months to get the novices to the desired level of competency.

Internships can be paid or unpaid. Although money is a basic necessity, an unpaid internship with better skill developing opportunities is better than a paid internship where the novice gets no opportunity to get some hands-on experience.

A crucial point about an internship program is the level of supervision. A mentor or supervisor who is an industry senior is assigned to monitor and guide the novices. Interns report to the mentors regularly about the assigned tasks as well as discuss difficulties. It is important that the mentor knows the balance between pressure and breathing-space that will help the intern to instill confidence in himself/herself.

Internships are a ‘testing the water’ experience that help an individual determine his/her fit in the industry. Even if the experience makes an individual change directions regarding professions, mentions of internship leave a positive experience on the curriculum vitae.

## 1.2 Origin of The Report

This report is a requirement for SE 701, Internship which is the industry-oriented academic course for the seventh semester at the Institution of Information Technology, University of Dhaka. In this course, the students are assigned to different software companies in order to get themselves acquainted with the current situation of the software industry. The students work full-time as an intern for six months and prepare a report based on their experience and observation towards the end of the internship.

This report is the written deliverable of my experience as an intern at V2 Technologies Ltd. This document will be elaborating on various aspects of the experience gained within the five months at the company.

## 1.3 Objectives

This section states the objectives of Internship. The objectives can be classified into two categories: Broad objectives and Specific objectives.

### 1.3.1 Broad Objectives

The broad objectives of Internship are stated as follows.

- ❖ Getting acquainted with the corporate work environment
- ❖ Improvement of technical and soft skills
- ❖ Interpretation of the future demands of the industry

### *Getting Acquainted with the Corporate Work Environment*

There are wide differences between the environment of an educational institution and a company. Organization operates under a well-defined policy. Employees are expected to religiously follow the rules and regulations after signing the contract. Breach of contract will lead to penalties that may also lead to contract termination and legal suits. Internship can be a practice ground to practice corporate values. Since interns are considered as learners, the organization is more involved in imparting the required values among the interns rather than anyone who has previous experience of working in an organization.

### *Improvement of Technical and Soft skills*

Usually, the academic curriculum is designed to broaden horizons on a conceptual level. If compared to a pyramid, the academic curriculum establishes the base of the pyramid structure.

The remaining structure of the pyramid is established with the help of technical skills. That is, technical skills involve the practical knowledge of getting the task done with the help of some tools or technology. The output of the academic curriculum is abstract. Integration of technical skills with theoretical knowledge results in a concrete output.

The industry is technical skill oriented. Jobs demand familiarity with tools and technologies that contribute to production of the final product. Internship is an opportunity where academic knowledge and technical skills merge and help one prepare for one's career. Through the journey, interns also acquire some essential soft skills alongside technical ones to excel in the corporate battlefield.

### *Interpretation of the future demands of the industry*

Internship is a period of gaining hands-on experience with the existing technology as well as learning about new technology. Involvement with an internship program allows academic committees to get familiar with the current situation of the industry and helps them predict future technical skills that might be required in the long run. This would help the academic curriculum with the demand of the industry and create graduates with better technical skills.

### **1.3.2 Specific Objectives**

The specific objectives of the internship are stated as follows.

- ❖ Bridging the gap between industry and academia
- ❖ Gaining real-life experience

### *Bridging the gap between industry and academia*

Although knowledge is power, relevant knowledge proves to be more effective in the software industry. Academia is involved in providing the students with the basic knowledge. Theory is however insufficient in real life situations. Technical skills equipped with basic knowledge is the determinant factor of the success of an individual in the IT industry. This is where staying up-to-date with relevant information becomes a necessity. Academia is responsible to give the basics to the future manpower and the industry world is dynamic. New technology is making its advent, principles are changing, frameworks are evolving and old methodologies are becoming

deprecated. It is important that academia is aware of the changes in the real world. Feeding the students with backdated information impediments the flow of efficient manpower.

Internship expedites the process of creating efficient manpower. Internship follows feedback from the industry. The academia can utilize the feedback to reconstruct the courses.

### *Gaining real-life experience*

It is no longer a matter of surprise to see demands of work experience on brochures. This sort of demand places students and graduates in a tight position. Internship opportunities that are relevant to the work field can fill in the gaps of work experience in a curriculum-vitae. Internships at IT companies allow the students to experience real-life situations of the industry. Students are directly involved in developing the software. They get hands-on experience with particular technology by implementing solutions and handling obstacles faced during the development process. While academic projects are flexible in case of requirements, a real-life project goes by the whim of the client. It restrains freedom of dodging the problem and enforces students to encounter the problem head-on taking help from an industry senior if required.

## 1.4 Scopes

A challenge encountered when working on a subject at a fairly granular level defines its scope. A project scope is the part of the project planning that involves determining and documenting a list of specific goals, deliverables, tasks, costs and deadlines. The scope of a report defines the goals and deliverable topics in a report. That is, the boundaries of subject matter of the report are mentioned in the scope. The following points are the scopes based on which this report was drafted.

- ❖ Overview of the company
- ❖ In-house practices of the company
- ❖ Involvement in real-life projects
- ❖ Acquired skills during internship phase

## 1.5 Methodology

I have presented different kinds of information in this report which I gathered during my internship period and collected from any written document such as the Internet or from another person. Most of the information is collected from web sites, articles, V2's employees and some journals. Information included in this report are classified into two categories: Primary data source and Secondary data source.

### 1.5.1 Source of Data

The source of data for this report can be categorized into two groups:

- ❖ Primary Source
  - Experience gathered from internship
  - Collaboration with colleagues and team mates during work
  - Participation in different in-house activities
  - Observing others jobs
- ❖ Secondary Source
  - Website of V2 Technologies Ltd
  - Facebook page of V2 Technologies Ltd
  - Brochures
  - HR Induction

### 1.5.2 Data Accession Method

For drafting this report, data was accessed by the following methods:

- ❖ Working as an intern
- ❖ Communicating with employees
- ❖ Visiting website and facebook page of V2 Technologies Ltd

It is to be mentioned that the data was collected over a period of five months on different occasions. Most content has been procured from the official website.

## 1.6 Limitations

As company policy is highly sensitive about sharing internal information outside of the company, here minimal information is provided with respect to company policies and taking permission from the authority. Working almost five months in V2 Technologies Ltd, I have been involved in so many activities and have learned many technologies. But I was assigned to a project and most of my intern period I have dedicatedly worked on my project. So, it is difficult to give an appropriate overview of other projects' development process. Information provided here about other projects is based on my experience and sharing knowledge with my colleagues. In this short report it is not possible to give a comprehensive and clear picture of the company profile. So, some information has been axed from this report to respect rules and regulation of the company.

---

## CHAPTER 2: ORGANIZATION OVERVIEW

---

This chapter contains detailed information of V2 Technologies Ltd., its culture and environment, corporate practices, specialties etc. It is to be noted, most content of this section has been collected from the organization's official website and Facebook page.

### 2.1 Location and Physical Layout

V2 Technologies Ltd. is a Bangladesh based IT Solution provider situated at the heart of Dhaka, the capital of Bangladesh. Address of the company is mentioned below:

House - 147  
Road - 04  
Mohakhali DOHS,  
Dhaka - 1206, Bangladesh



### 2.2 Focus and Growth

As a pure Technology Start Up, the main focus of V2 Technologies Ltd. has been cutting edge technology and customer needs. The organization puts its customers first. Comprising a bunch of young energetic people, the company is always pushing its employees and executives for new business innovation and helping clients to transform their business towards prosperity.

V2 is growing each day since its start and continuously strengthening its core by assembling the best and most innovative people of the industry.

### 2.3 Services

V2 Technologies Ltd. offers a variety of services. The services that are being provided at the moment are mentioned below:

### 2.3.1 Machine Learning & AI

- ❖ Business Automation
- ❖ Automotive Research
- ❖ Business Chatbot

### 2.3.2 Business Intelligence

- ❖ Regular and Ad-hoc Reporting
- ❖ Real-Time Reporting Tools
- ❖ BI tools (e.g.: Power BI, Quicksight etc.) Integration

### 2.3.3 Data Warehousing

- ❖ Data preprocessing
- ❖ Transformation
- ❖ Big Data Management

### 2.3.4 Android Development

- ❖ Cross-platform Development for Mobile Apps
- ❖ High standard functionality & features
- ❖ Rich User Interface

### 2.3.5 Data Mining & Analytics

- ❖ Predictive Analysis
- ❖ Market Research
- ❖ Machine Learning
- ❖ Time Series Analysis
- ❖ Pattern Analysis

### 2.3.6 Web Development

- ❖ Custom E-commerce
- ❖ Mobile E-Commerce and App Development
- ❖ WordPress



## 2.4 Clients of V2 Technologies Ltd



Figure 1: Clients of V2 Technologies Ltd.

## 2.5 Working hours

Every employee is entitled to an 8-hour office schedule five times a week, including lunch break. The office hour usually starts at 10:00 am. But The office is kept open from 09:00 am to 08:00 pm from Sunday to Thursday. Within this time range, employees are to complete their work shifts. There is a 'FingerPrint Entrance System' which is used to track entry and exit time of employees. Employees are rewarded yearly based on their performance and working hours.

## 2.6 Miscellaneous Facilities

V2 Technologies Ltd. provides some other facilities for employees to enjoy.

### 2.6.1 Food and Refreshments

V2 has a well-planned arrangement to provide lunch for its employees. Employees can bring lunch from home or they can have lunch in the office canteen. Lunch menu is also elegant. On Tuesdays and Thursdays, employees can enjoy aromatic rice with Chicken roast or Beef Rezala.

Besides lunch, a lovely assortment of snacks is served in the afternoon. The snack options are non-repetitive over a week. Employees can enjoy savory items like noodles, chotpoti, roll, samosa, shingara, velpuri etc. to sweet delicacies like sponge rosogolla, cake, pudding and occasional pithas like vapa pitha, patishapta etc. Unlimited cups of tea and coffee are free and available all day to the employees in the kitchen.

### 2.6.2 Prayer Facilities

The company has a prayer room for both male and female employees. Employees are also permitted to perform their Salat in congregation (Jamaat) in office prayer room or in the nearby Mosque.

### 2.6.3 Games and Sports

When it comes to games and sports, V2 is very keen and enthusiastic. The members participate every year in table tennis and futsal tournaments and have earned prizes. Each year a separate indoor games day is celebrated as well.

### 2.6.4 Participation in the Cultural and the Religious Events

In the midst of a technological world, V2 Technologies does not forget to observe the Bengali culture and the religious events. The festivities of Bangla New Year reach the lives of the office workers in the form of food decoration and attire. Also, the somberness of Ramadan and appreciation of Almighty prevails through a wonderful Iftar party.

---

## CHAPTER 3: LEARNINGS AND PROJECT WORK

---

### 3.1 Overview

From day one, the V2 family warmly embraced me as a new member. The Human Resource Manager at V2 Technologies Ltd introduced me to my fellow colleagues, treating me no different than any other employee. There is never a moment where I feel like just an intern here; instead, I am valued as an integral part of the team. Right from the start, my mentors and supervisor have dedicated their precious time to ensure my comfort and help me adapt to both the environment and the latest technologies.

Here are some of the privileges as an intern I was entitled at V2 Technologies -

- ❖ Dedicated workspace like any other employee
- ❖ Individual PC and other facilities
- ❖ Become a member of real life project team
- ❖ Flexible working time and environment
- ❖ Leave for academic activities & emergencies
- ❖ Opportunity to work in real life project

### 3.2 Learning Phase

During the initial month of my internship in January 2023, my primary focus was on acquiring new knowledge regarding various frameworks, technologies, tools, and refreshing my existing skills. The first half of the month was dedicated to exploring the following areas:

- ❖ JavaScript
- ❖ React JS
- ❖ NodeJS + Express
- ❖ PostgreSQL
- ❖ Sequelize

As I entered the second half of the month, my mentor presented me with an exciting challenge: developing a "ToDoList Web App" encompassing both the frontend and backend components. I was given a timeframe of two weeks to complete this task, utilizing the tools and concepts I had learned thus far. Additionally, during this period, I expanded my expertise in designing web

applications by exploring Antd and Material UI. I have completed the task within the given timeframe, successfully delivering the fully functional "TodoList Web App" by January 25th.

### 3.3 My Project Involvement and Contribution

On January 25th, my team lead entrusted me with a significant project called V2 RMS (Recruitment Management System). To kick-start the development process, he handed me a document containing an informal and unstructured description of the project. My first task was to transform this document into a fully functional system by bringing clarity and structure to its requirements. Here is the description of the projects:

#### 3.3.1 V2 RMS – *Recruitment Management System*

V2 RMS (Recruitment Management System) is an innovative web application designed to automate V2's current manual recruitment process. By seamlessly integrating with V2's official website, this system aims to streamline and enhance the efficiency of the entire recruitment workflow. With V2 RMS, the company will experience a significant improvement in managing candidate applications, conducting interviews, and facilitating the overall hiring process.

##### 3.3.1.2 *My Role & Duration:*

In V2 RMS, my role entailed designing the entire system, including UI/UX, database model, and both frontend and backend development. I ensured a seamless user experience through intuitive interfaces while implementing efficient functionality and logic.

##### 3.3.1.2 *Tools and Technologies:*

The following tools and technologies have been used for the development of the project:

- ❖ React (Frontend)
- ❖ Ant Design (AntD)
- ❖ NodeJS + Express (Backend)
- ❖ PostgreSQL
- ❖ Sequelize
- ❖ Table Plus
- ❖ Postman
- ❖ Bootstrap

- ❖ HTML, CSS
- ❖ JWT Token
- ❖ Chrome Developer Tools
- ❖ Visual Studio Code

### 3.3.1.3 Features:

The system has mainly two panels, **Applicant Panel** and **Admin Panel**. Following are the key features of the system:

#### 3.3.1.3.1 Applicant Panel Features:

##### - Current Job Circular List:

Upon clicking the career section of V2's official website, applicants are presented with a convenient first-page view of the current job circulars list, allowing them to easily access and explore available job opportunities.



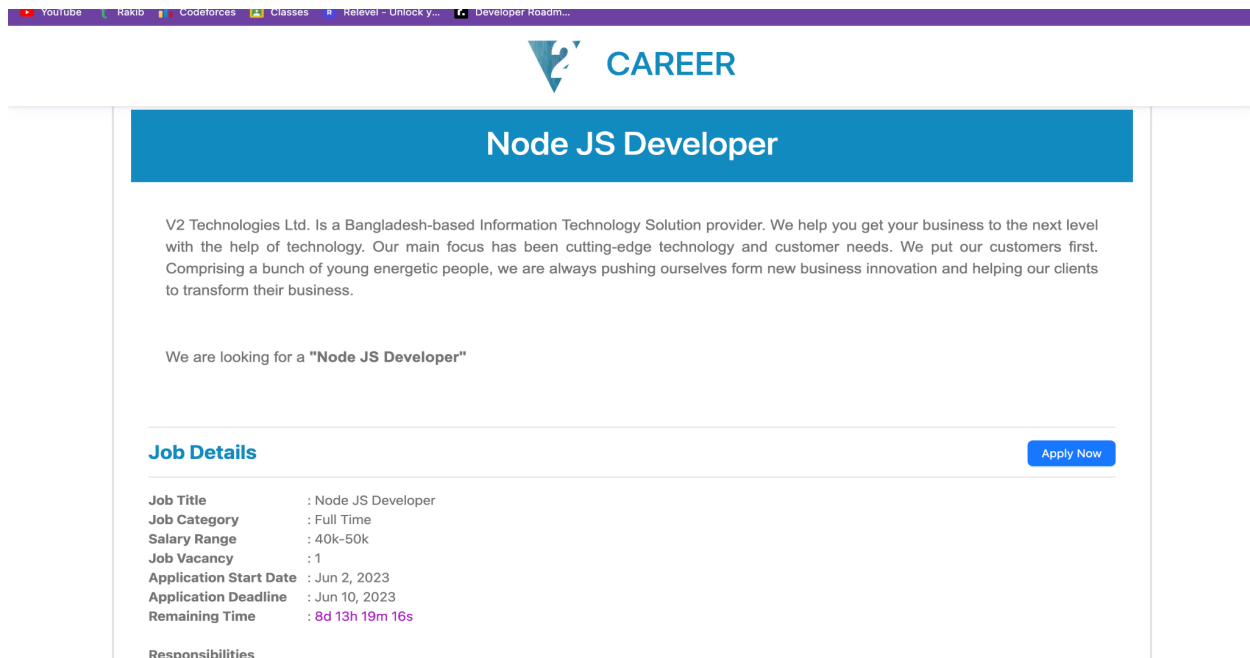
#### RECENT JOB OPENINGS

Job Title	Vacancy	Job Type	Salary Range	Application Starts	Submission Deadline	Remaining Time to Apply	Action
Node JS Developer	1	Full Time	40k-50k	Jun 2, 2023	Jun 10, 2023	8d 13h 23m 44s	<a href="#">Apply Now</a>
Android Developer	1	Full Time	30k-35k	Jun 10, 2023	Jun 25, 2023	23d 13h 23m 44s	<a href="#">Apply Now</a>
Database Engineer	1	Full Time	30k-35k	May 1, 2023	May 10, 2023	----- (expired)	<a href="#">Apply Now</a>
Business Executive	1	Full Time	30k-35k	May 1, 2023	May 10, 2023	----- (expired)	<a href="#">Apply Now</a>
Full Stack Developer	1	Full Time	30k-35k	May 1, 2023	May 10, 2023	----- (expired)	<a href="#">Apply Now</a>
React Developer	1	Full Time	50k	May 14, 2023	Jun 15, 2023	13d 13h 23m 44s	<a href="#">Apply Now</a>

Figure 1: Applicant panel job circular list page.

##### -Job Circular Details page:

Applicants can see the details of any job circular from the list by clicking on the 'Apply Now' button.



Node JS Developer

V2 Technologies Ltd. Is a Bangladesh-based Information Technology Solution provider. We help you get your business to the next level with the help of technology. Our main focus has been cutting-edge technology and customer needs. We put our customers first. Comprising a bunch of young energetic people, we are always pushing ourselves form new business innovation and helping our clients to transform their business.

We are looking for a "Node JS Developer"

**Job Details** [Apply Now](#)

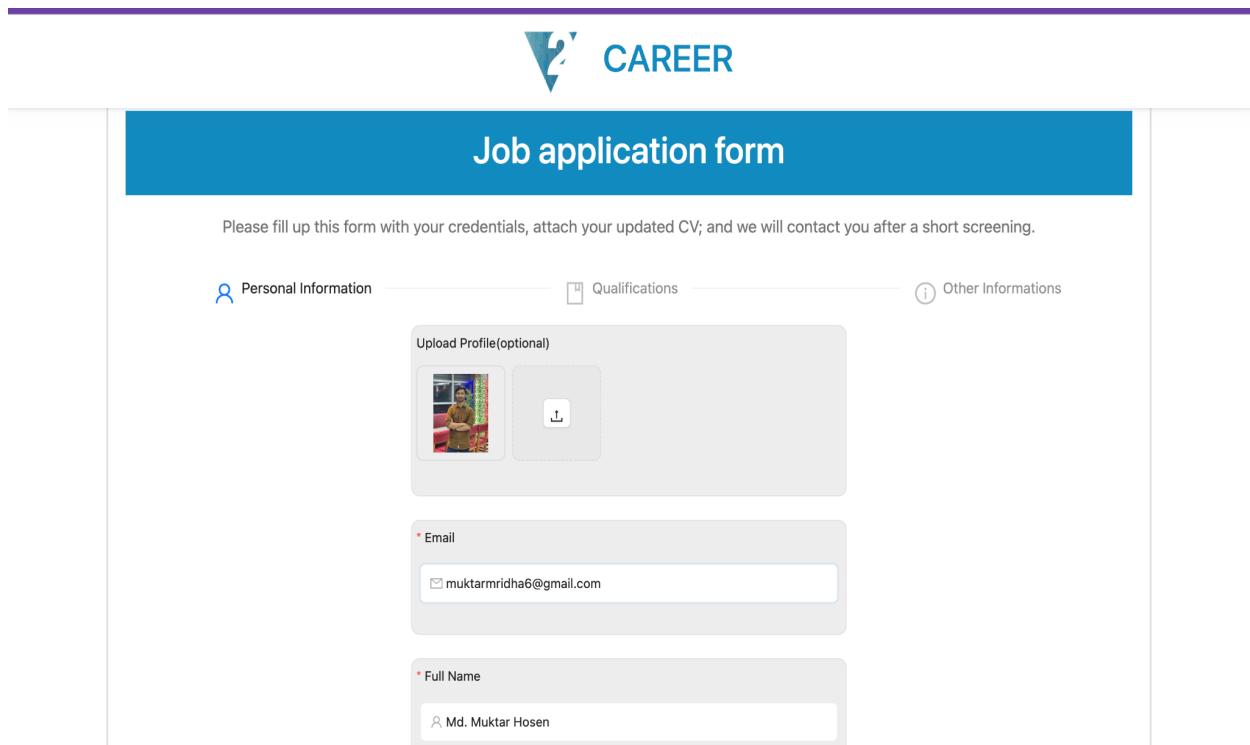
Job Title	: Node JS Developer
Job Category	: Full Time
Salary Range	: 40k-50k
Job Vacancy	: 1
Application Start Date	: Jun 2, 2023
Application Deadline	: Jun 10, 2023
Remaining Time	: 8d 13h 19m 16s

Responsibilities

Figure 2: Job Circular Details page.

#### - Apply now page:

Applicants can apply by providing their information through a form.





Job application form

Please fill up this form with your credentials, attach your updated CV; and we will contact you after a short screening.

[Personal Information](#) [Qualifications](#) [Other Informations](#)

Upload Profile(optional)

\* Email

\* Full Name

Figure 3: Application form page.

### 3.3.1.3.1 Admin Panel Features:

#### - Job Circular Create, Update and Delete:

Logged in admin can create a new Job Circular, update an existing Job Circular or delete a Job Circular any time.

The screenshot shows the 'Post a new Job Circular' form in the V2 RMS Admin Panel. The form is titled 'Post a new Job Circular' and contains four input fields:

- Job Title:** Node JS Developer
- Vacancy:** 1
- Salary Range:** 40k-50k
- Job Type:** Full Time

Figure-4: Create or update a job circular page

#### -Explore Applicant List & creating Short list for assigning task through mail:

Admin can explore the list of applicants for a specific job circular and select the applicants for the next step: assigning tasks to complete.

The screenshot shows the 'Applicant List for React Developer' page in the V2 RMS Admin Panel. The page includes a search bar and a table of applicants. The table has the following columns: Full Name, Email, Phone, University, Experience, Application Status, and Actions. The table lists three applicants:

Full Name	Email	Phone	University	Experience	Application Status	Actions
Md. Muktar Hosen	muktarmridha6@gmail.com	88001586848564	University of Dhaka	2-4 years	Task Submitted	View View Task
Md. Khairul Alam	muktarmridha62@gmail.com	88001586848564	University of Dhaka	2-4 years	Pending	View
Raisul Islam Rahat	bsse1117@du.ac.bd	88001586848564	University of Dhaka	2-4 years	Pending	View

Figure 5: Applicant List page

### - Sliding List of Applicants:

Admin can explore the applicants in a slider and make a short list for assigning tasks.

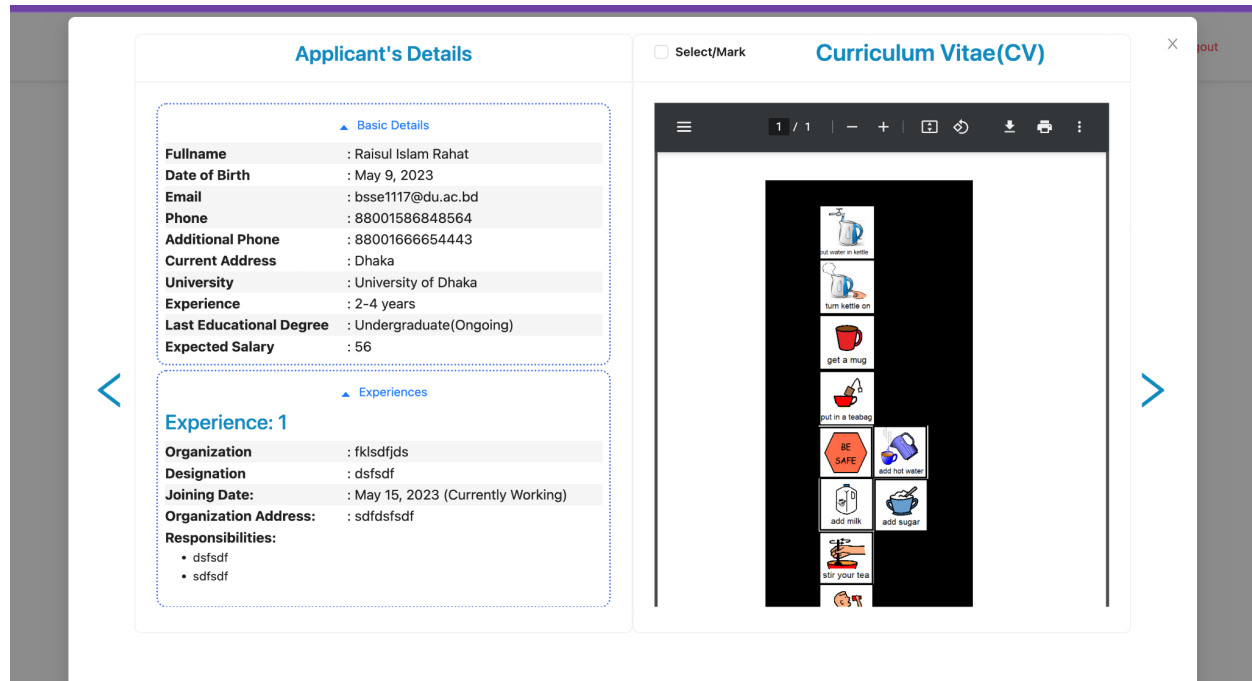


Figure 6: Applicant List as slider

### - Assign Task to short listed applicants:

Admin can assign tasks to all the applicants shortlisted from applicant list or applicant slider page through a form. Then an email with task details and deadline will be sent to each of the applicants.

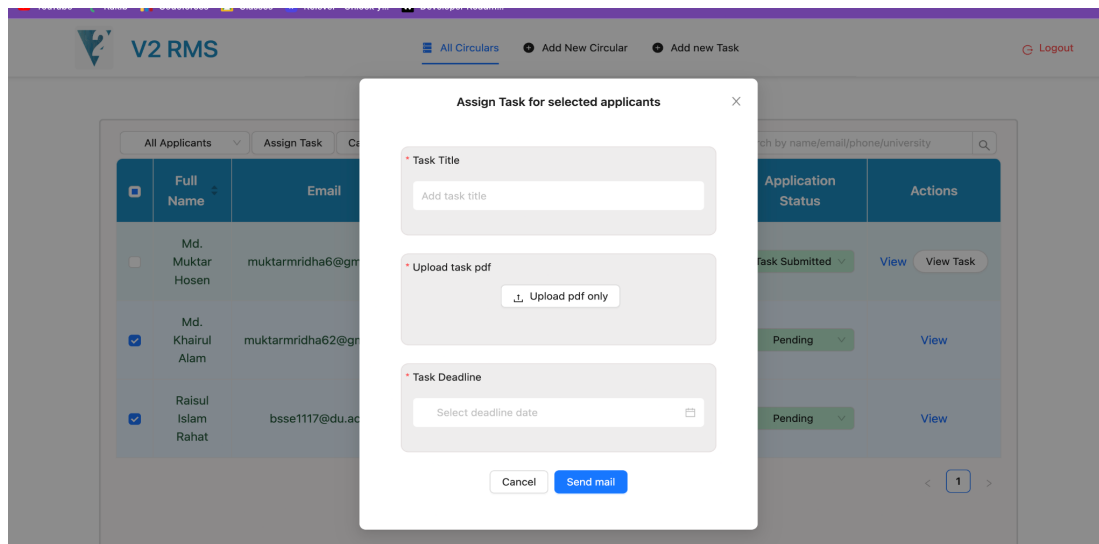


Figure-7: Assign Task to shortlisted applicants



#### - Explore submitted task:

Admin can see the submitted tasks of the applicant and make a 2nd shortlist for calling them in an interview. After clicking the call for interview button an email to each applicant will be sent and also an email will be sent to the HR/Team Lead to notify them about the interview.

#### -Set as Hired:

After the interview selected applicants' status will be updated on the website and they will be notified automatically by email.

### 3.3.2 PPL

This is a client project of V2 Technologies Ltd.

#### *3.3.2.1 My Role & Duration:*

During my assignment, I was tasked with addressing bugs in the "Create Role" and "Edit Role" pages of the PPL project. I dedicated two to three days to this task, diligently re-writing the code to establish a more structured and organized framework. The initial codebase had been poorly structured, but I successfully transformed it into a well-organized and coherent solution.

### 3.3.3 TransformGPT

Having successfully completed the V2 RMS project by mid-May, my supervisor assigned me to develop the frontend of the TransformGPT web application. This unique tool utilizes the chatCPT API to rewrite a given text in a specified document pattern, enhancing document generation capabilities and streamlining the writing process.

#### *3.3.1.2 My Role & Duration:*

As part of my assigned task, I successfully developed the frontend of the TransformGPT tool within a span of two days. The frontend interface resembles a chat-like page, featuring two input boxes. The first box allows users to input the desired pattern or format, while the second box captures the text to be rewritten according to the provided pattern. This intuitive design facilitates an efficient and user-friendly experience for transforming text into the desired document format.

### 3.3.1.2 Tools and Technologies:

- React
- Material UI

### 3.3.1.2 Key Features:

#### - Login & Sign Up with session management:

The user registration process for the TransformGPT tool involves signing up with a username, email, and password. Once registered, users can log in using their username and password. The login session will be securely saved for a duration of one week, allowing users to access the tool without needing to log in repeatedly within that time frame.

#### - The TransformGPT page:

The TransformGPT page features two fields: a "Pattern" field and a "Text to be Re-written" field. Upon submitting the input, the response from the chatGPT API will be displayed as typed text in the text box located above, providing users with the re-written text according to the specified pattern. This real-time display enhances the user experience and allows for immediate feedback.

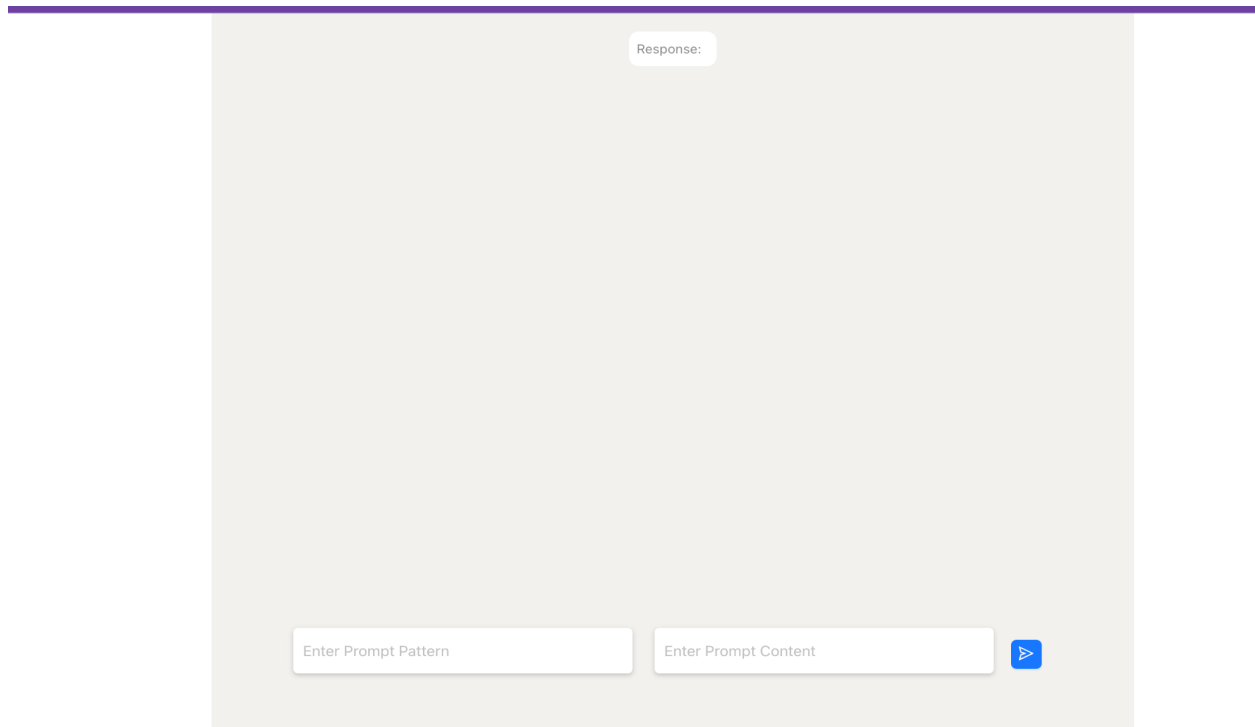


Figure 7: TransformGPT chatting page

### 3.3.4 Miscellaneous Tasks

Alongside working in the above mentioned website with V2 RMS (Recruitment Management System), I have been involved in some spare tasks at times. These are as follows –

**Helping another intern:** Following my successful completion of the V2 RMS project in mid-May, I was assigned to assist a new intern in frontend and backend development for the "Ticket Management System" project. I provided support in database modeling as well as frontend and backend implementation.

**Data Entry:** Towards the end of May, I was assigned the task of entering data from an XML file into a form on V2 Technologies Ltd's internal website. My responsibility involved accurately transferring the information from the XML file into the designated fields of the form for efficient data management.

## CHAPTER 4: SKILLS DEVELOPMENT

---

This chapter focuses on the skills and experiences I have acquired in the past six months of my internship at V2 Technologies Ltd.

### 4.1 Languages & Frameworks

I have learned and used the following technologies during my internship.

#### Basic Javascript

JavaScript Basics serves as the foundation of web development, providing essential concepts and syntax for building interactive and dynamic web applications.

#### ES6(ECMAScript 6)

ECMAScript 6 (ES6) introduces modern features and enhancements to JavaScript, empowering developers to write more concise and efficient code. ES6 includes new syntax, modules, classes, and additional data types.

#### React

React is a popular JavaScript library for building user interfaces. It follows a component-based approach and provides a declarative syntax, enabling developers to create reusable UI components and efficiently manage application state.

#### Node JS

Node.js is a versatile JavaScript runtime environment that allows the execution of JavaScript code outside the browser. It provides a powerful platform for building server-side applications and enables developers to leverage JavaScript for both frontend and backend development.

#### Express

Express is a flexible and lightweight web application framework for Node.js. It simplifies the process of creating robust web applications and APIs, providing a wide range of features and middleware for routing, request handling, and response generation.

## MVC Architecture

The Model-View-Controller (MVC) architecture is a software design pattern that separates the application's data model, user interface, and control flow. It promotes code organization, modularity, and reusability, making it easier to maintain and update applications.

## Web API

Web API is a platform for building HTTP-based services, allowing clients to interact with web applications through standard HTTP requests. It provides a flexible and scalable approach to developing APIs and supports various data formats, such as JSON and XML.

## Chrome DevTools

The Chrome Developer Tools (DevTools for short), are a set of web authoring and debugging tools built into Google Chrome. The DevTools provide web developers deep access into the internals of the browser and their web application. The DevTools are used to efficiently track down layout issues, set JavaScript breakpoints, and get insights for code optimization.

## 4.2 Tools & IDE

During my internship, I have used the following development tools and platforms.

### Table Plus

TablePlus is a modern and intuitive database management tool that supports multiple databases, including PostgreSQL, MySQL, SQLite, and more. It offers a sleek interface with advanced features for querying, managing, and visualizing database data.

### DBeaver

DBeaver is a versatile and open-source database tool that supports various databases, including PostgreSQL, MySQL, Oracle, and more. It provides a comprehensive set of features for database development, administration, and data manipulation.

### Postman

Postman is a popular API development and testing tool that simplifies the process of building, testing, and documenting APIs. It provides a user-friendly interface for making HTTP requests, inspecting responses, and validating API endpoints.

## Visual Studio Code

Visual Studio Code is a free source-code editor made by Microsoft for Windows, Linux and macOS. Its enrich features include support for debugging, syntax highlighting, intelligent code completion, snippets, code refactoring, and embedded Git.

## CHAPTER 5: SELF-ASSESSMENT

---

Alongside learning new tools and technologies, this internship has given me the opportunities to adopt some good personality traits that are immensely necessary to work side by side with others in the corporate world. I have learned to understand and appreciate these values by working with some inspiring colleagues.

Here in this chapter I have assessed the capabilities I have achieved during my internship program from my idea and perspective.

### 5.1 Cooperation

To create a better environment each and every team member should be cooperative. My team members are so helpful to each other in working. Everybody shares knowledge if one faces difficulties on how to complete his assigned task. I have learned to be cooperative to others residing in my team.

### 5.2 Responsibility

In a professional environment like the software industry one person is defined by how dedicated the person is towards the work, how s/he handles the responsibility. Being an intern at V2 Technologies Ltd, I have worked dedicatedly during my internship period, sometimes on weekends and I have even stayed long at night till the work is fully complete.

### 5.3 Attitude

I have faced some talented people, team members who are always enthusiastic and professional with their work. They make me feel positive about every kind of work in a professional environment. Throughout my internship period I have tried my level best to be enthusiastic, passionate, and positive to my works.

### 5.4 Self-dependence

This internship has also given me opportunities to work independently at times and appreciate the online resources. Whenever I encountered problems/errors in my project, I would look into

*Stack Overflow*, *Medium* sites or ChatGPT for solutions. I have also become accustomed to go through the official documentations of frameworks, languages or libraries.

## 5.5 Planning

One of the professional practices is planning before working. Especially in software engineering it is a must as development begins after planning. I now tend to plan naturally- whether in mind or on paper, before starting any complex task.

## 5.6 Punctuality

In corporate life professionalism comes with punctuality and sincerity towards work. In V2, every employee must come to the office within 12 PM to count the day as a fully working day and work for 8 hours from his/her entry time. For failure to be present in time one is fined a certain amount. During my intern period I have always been punctual and have maintained office time properly.

## 5.7 Negotiation

To create a win-win situation, in almost every sector we need to negotiate with each other. In the software industry negotiation is the first and foremost condition to working with clients. In V2, we also discuss or negotiate with each other before starting or taking new tasks to ensure the work is done in time. It helped me to appreciate this superior quality and develop my negotiation capabilities.



## CHAPTER 6: CONCLUSION

---

It is often said that there is no point in education if it does not help you in real life. In other words, expanding horizons should be supplemented with real-life experience. Internship is a great opportunity for this. An intern is a learner in the office environment. The companies have no expectations of a noteworthy output from interns, in fact, the expectation stays negligible for at least one year for a newly recruited fresh graduate. Such expectations give an individual ample opportunity to explore his/her strengths and weaknesses. I could say the same in my case.

Speaking frankly, the last five months have made me accustomed to the professional company culture and the technologies they mostly deal with. Throughout my internship it has helped a lot to develop professionalism, patience, good judgment and made me so strong to face new problems, challenges which has helped me to develop better analytical skills also. The projects in which I have worked inspired me to be confident, responsible and helped me with all means to build a research mind, motivate me to work, and enjoy my work.

Furthermore, this program has been a great aid in improving my teamwork capabilities. At the companies it is important to function as a unit and respect the team mate's ideas and suggestions. In Fine, I express my gratitude to the Institute of Information Technology, University of Dhaka for providing such an opportunity to get some idea of the competitive environment in the professional field. Now I look forward to facing the upcoming challenges of the world along with this wonderful experience.

## REFERENCES

---

[1] V2 Technologies Ltd. Facebook page,

<https://www.facebook.com/V2TechnologiesLtd>

[2] Node.js,

<https://en.wikipedia.org/wiki/Node.js>

[3] What is Postman, and Why Should I Use It?,

<https://www.digitalcrafts.com/blog/student-blog-what-postman-and-why-use-it>

[4] PostgreSQL,

<https://www.postgresql.org/>

[5] React framework,

<https://blog.hubspot.com/website/react-js>

[6] V2 Technologies Ltd. official website,

<https://v2.ltd/>

[7] What is ECMAScript 6?

<https://www.quora.com/What-is-ECMAScript-6>

[8] Why do we need Sequelize?

<https://www.section.io/engineering-education/understanding-nodejs-sequelize-orm-models/#:~:text=Sequelize%20lets%20us%20connect%20to,model%20definition%20to%20model%20usage.>

[9] Express.js,

<https://en.wikipedia.org/wiki/Express.js>

[10] Basic MVC Architecture,

[https://www.tutorialspoint.com/struts\\_2/basic\\_mvc\\_architecture.htm](https://www.tutorialspoint.com/struts_2/basic_mvc_architecture.htm)