MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

(A Govt. Aided UGC Autonomous & NAAC Accredited Institute Affiliated to RGPV, Bhopal)

Internship Report

A final year internship report submitted in partial fulfillment of the requirement for the

degree of

BACHELOR OF TECHNOLOGY

in

COMPUTER SCIENCE AND ENGINEERING

PROJECT- CIMON

Submitted by:

Sonal Arya

0901CS181104

Submitted to:

Internship Faculty Mentor:

Prof Amit Kumar Manjhvar

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE
GWALIOR - 474005 (MP) est. 1957

MAY-JUNE 2022

MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

(A Govt. Aided UGC Autonomous & NAAC Accredited Institute Affiliated to RGPV, Bhopal)

Internship Report

A final year internship report submitted in partial fulfillment of the requirement for the

degree of

BACHELOR OF TECHNOLOGY

in

COMPUTER SCIENCE AND ENGINEERING

PROJECT- CIMON

Submitted by:

Sonal Arya

0901CS181104

Submitted to:

Internship Faculty Mentor:

Prof Amit Kumar Manjhvar

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE
GWALIOR - 474005 (MP) est. 1957

MAY-JUNE 2022

Internship Certificate Received from Digimonk

Registered Address
Digimonk Technologies Pvt Ltd
Software Technology Park of India (IT Park),
Morena Link Road, Gwalior (M.P.) 474010
Phone: (+91) 7722-84-5500
www.digimonk.in

REF NO: DMT/EXL/MAY/22/01

Experience Letter

To whomsoever it may concern

This is to certify that **Miss. Sonal Arya** has worked with us as '**Software Engineer – Intern**' from **03-JAN-2022** to **03-MAY-2022**. During this tenure she has also contributed as '**Web Developer**' for various clients.

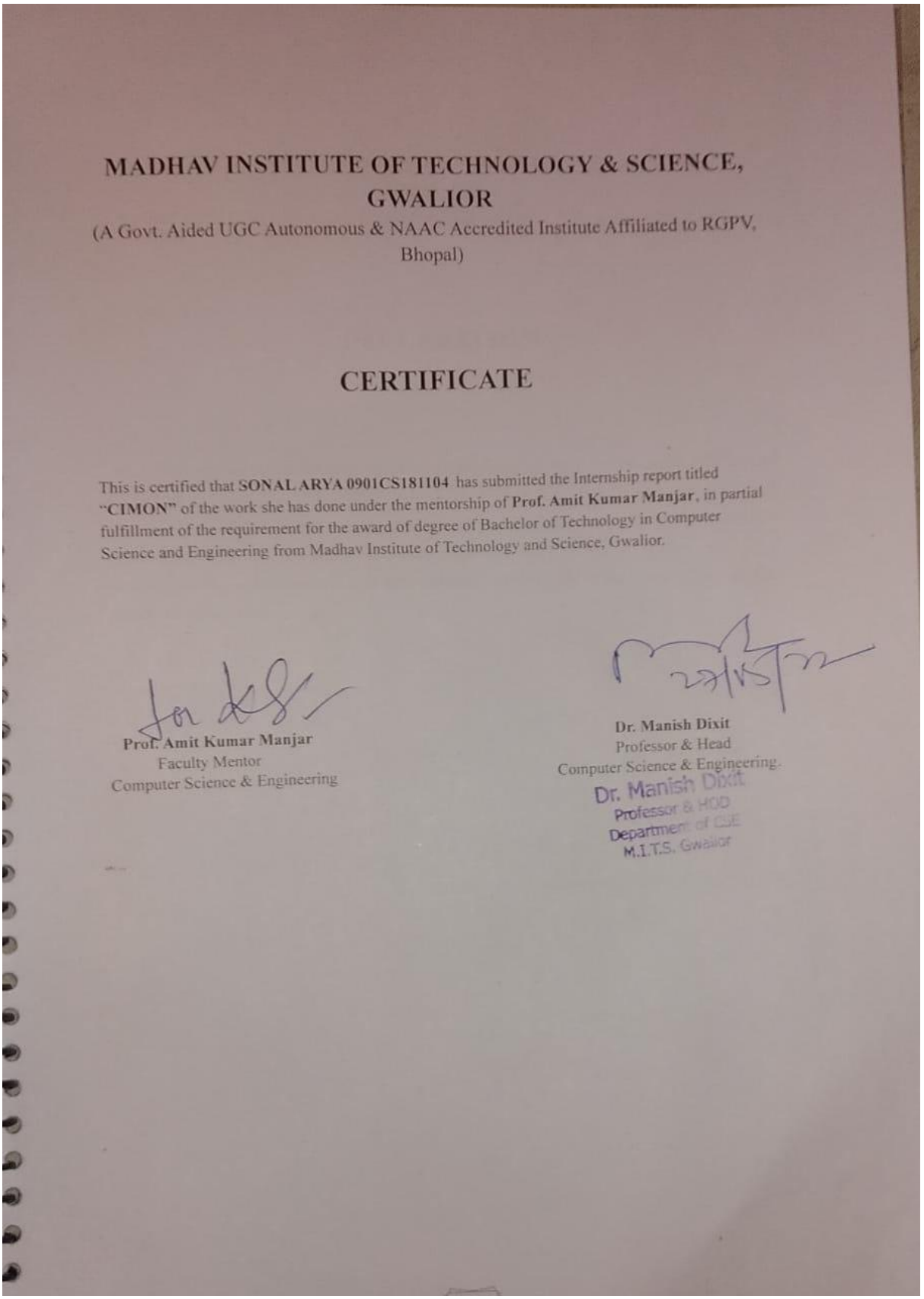
I wish him success in his future endeavor.

Yours Cordially,

Gaurav Jain

Gaurav Jain (Founder)
DigiMonk Technologies

CERTIFICATE



MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE,
GWALIOR
(A Govt. Aided UGC Autonomous & NAAC Accredited Institute Affiliated to RGPV, Bhopal)

CERTIFICATE

This is certified that **SONAL ARYA 0901CS181104** has submitted the Internship report titled **"CIMON"** of the work she has done under the mentorship of **Prof. Amit Kumar Manjar**, in partial fulfillment of the requirement for the award of degree of Bachelor of Technology in Computer Science and Engineering from Madhav Institute of Technology and Science, Gwalior.

Prof. Amit Kumar Manjar
Faculty Mentor
Computer Science & Engineering

Dr. Manish Dixit
Professor & Head
Computer Science & Engineering.

Dr. Manish Dixit
Professor & HOD
Department of CSE
M.I.T.S. Gwalior

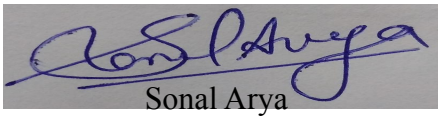
MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

(A Govt. Aided UGC Autonomous & NAAC Accredited Institute Affiliated to RGPV, Bhopal)

DECLARATION

I hereby declare that the work being presented in this Internship report, for the partial fulfillment of requirement for the award of the degree of Bachelor of Technology in CSE at Madhav Institute of Technology & Science, Gwalior is an authenticated and original record of my work under the mentorship of **Prof Amit Kumar Manjwar,** Department of CSE.

I declare that I have not submitted the matter embodied in this report for the award of any degree or diploma anywhere else.



Sonal Arya

0901CS181104

IV Year

Computer Science & Engineering

MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

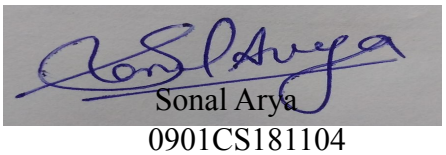
(A Govt. Aided UGC Autonomous & NAAC Accredited Institute Affiliated to RGPV, Bhopal)

ACKNOWLEDGEMENT

The full semester internship has proved to be pivotal to my career. I am thankful to my institute,**Madhav Institute of Technology and Science** to allow me to continue my disciplinary/interdisciplinary internship as a curriculum requirement, under the provisions of the Flexible CurriculumScheme(based on the AICTE Model Curriculum 2018), approved by the Academic Council of the institute. I extend my gratitude to the Director of the institute, **Dr. R. K. Pandit** and Dean Academics, **Dr. Manjaree Pandit** for this.

I would sincerely like to thank my department, the Department of Computer Science andEngineering,for allowing me to explore this internship. I humbly thank **Dr. Manish Dixit**, Professor and Head**, Department of Computer Science and Engineering**, for his continued support during the course of this engagement, which eased the process and formalities involved.

I am sincerely thankful to my faculty mentors. I am grateful to the guidance of **Prof Amit Kumar Manjwar**, Mentor, Department of Computer Science and Engineering, for his continued support andclosementoring throughout the internship. I am also very thankful to the faculty and staff of the department.



Sonal Arya
0901CS181104
Computer Science & Engineering

ABSTRACT

The project report is on my recent project CIMON. It is a software solution selling website application they sell automation software solution at their website. The hole project is divided in to two part first is admin part and other is user part. Through the admin part admin have all the Controles over the user interface part from where user interacted and can place their order admin can add information and can remove through in admin side. This project get this functionality through CMS where CMS stands for content management system.

Apart of this i complete two more project which is also client projects. In this period of internship i shape up my skills and learned some new technologies like Hugo server, node js , react js, git, GitHub, APIs, database, Sql, JavaScript. Apart of this my soft skills more likely improves teamwork, problem solving skill and management skills.

प्रोजेक्ट रिपोर्ट मेरे हाल के प्रोजेक्ट CIMON पर है। यह एक सॉफ्टवेयर सॉल्यूशन है जो वेबसाइट एप्लिकेशन बेचता है जो वे अपनी वेबसाइट पर ऑटोमेशन सॉफ्टवेयर सॉल्यूशन बेचते हैं। होल प्रोजेक्ट को दो भागों में विभाजित किया गया है, पहला है एडमिन पार्ट और दूसरा यूजर पार्ट। व्यवस्थापक भाग के माध्यम से व्यवस्थापक के पास उपयोगकर्ता इंटरफ़ेस भाग पर सभी नियंत्रण होते हैं जहां से उपयोगकर्ता इंटरैक्ट करता है और अपना ऑर्डर दे सकता है व्यवस्थापक जानकारी जोड़ सकता है और व्यवस्थापक पक्ष में हटा सकता है। इस परियोजना को सीएमएस के माध्यम से यह कार्यक्षमता मिलती है जहां सीएमएस सामग्री प्रबंधन प्रणाली के लिए है।

इसके अलावा मैं दो और प्रोजेक्ट पूरा करता हूं जो क्लाइंट प्रोजेक्ट भी हैं। इंटर्नशिप की इस अवधि में मैंने अपने कौशल को आकार दिया और ह्यूगो सर्वर, नोड जेएस, रिएक्ट जेएस, गिट, गिटहब, एपीआई, डेटाबेस, एसक्यूएल, जावास्क्रिप्ट जैसी कुछ नई तकनीकों को सीखा। इसके अलावा मेरे सॉफ्ट स्किल्स से टीम वर्क, प्रॉब्लम सॉल्विंग स्किल और मैनेजमेंट स्किल्स में सुधार होने की संभावना है।

TABLE OF CONTENTS

TITLE **PAGE NO.**

Introduction---------- i

Internship Certificate from Industry—---------- ii

Institute Internship Certificate---------- iii

Declaration---------- iv

Acknowledgement---------- v

Abstract---------- vi

Table of Contents---------- vii

List of Figures---------- x

Abbreviation

Chapter 1:
Introduction---------- 1

1.1 About the company---------- 1

1.2 About the project---------- 1

1.3 Roles and Challenges---------- 1

Chapter 2:

Working and learning---------- 2

2.1 Technology worked on---------- 3

2.2 Project completed---------- 4

Chapter 3:

Technologies and Requirement---------- 4
3.1 Technologies used---------- 4
3.1.1 Versions and specification
3.2 System requirement---------- 4
3.2.1 Software Implementation Technology

Chapter 4:

Role and Profile---------- 6

Chapter 5:

System Design---------- 10
5.1 Admin system---------- 11
5.2 User interface system---------- 12
5.3 Database management---------- 13

Chapter 6:

Conclusion---------- 20
7.1 Experience---------- 20

References---------- 21
Appendices---------- 23

LIST OF FIGURES

Figure Number	Figure caption	Page No.
1.	Admin side system	18
2.	Admin authenticate user	19
3.	User side login system	21
4.	User landing page	22

Chapter 1

Introduction

1. About the Organization

I joined this internship as MERN stack developer in DIGIMONK. Which is a startup-based company established from 2016 and it is CMMI certified company their head office is located Gwalior. They provide services in various technology like web designing and development, CRM Development, CMS Development, E commerce Development, AWS, cloud computing, Software Development and on many more.

2. About internship

Internship duration : 3 January to 4 April.

- ❑ Internship on : MERN Stack.
- ❑ Under the guidance of Mr Saral Shrivastav company mentor.
- ❑ Internship module: HUGO server, JAVASCRIPT, NODEJS, MYSQL, JQUARY, REACTJS, tailwind, mongoDb

3. Project Work

This project I received from USA client side in this project there is a lot of bugs fixing and to make the website fast loading and need to improve its functionality and to make their data dynamic and also to make the whole side responsive plus to implement search engine optimization.

4. Roles and Challenges

During this project I face many challenges like in fixing bugs and find solution in someone others code is such a massive task to do. I also assigned to make whole website responsive to increase its performance. Also deal with database under the guidance of industrial mentor.

Chapter 2

Working and Learning

2.1 Technology learned and used

❖ **React js**

- A JavaScript Library for Building User Interfaces renders your UI and responds to events. It also uses the concept called Virtual DOM, create an in memory data structure cache, enumerates the resulting differences then update the browser displayed DOM efficiently. One of the unique feature of reactjs is not only it can perform on the client side, but it can also be rendered on the server side, and they can work together interoperable. React first assembles the entire structure of your app in memory using objects. Then it converts that structure into actual DOM nodes and insert dthem in your browser' DOM.

Why I used react:

- React.js work great for teams, strongly enforcing Ul and workflow patterns.
- The user interface code is readable and maintainable.
- Componentized UI is the future of web development, and you need to start doing now.
- There is now a lot of demandfor developers with ReactJS experience**.**

Node js

NODE JS is Asynchronous i/o framework Rest of it in javascript Swiss army knife for network Related stuffs.Core in C++ on top of v8.Can handle thousands of Concurrent connections with Minimal overhead on a single process.It's NOT web framework, and it's also NOT a language.

Why **node.js ?**

- Non Blocking I/O
- V8 Javascript Engine
- Single Thread with Event Loop
- 40,025 modules

  Windows , Linux , Mac

  1 Language for Frontend and Backend
- Active community

The idea behind node.js….

Perform asynchronous processing on single thread instead of classical multithread processing, minimize overhead and latency, maximize scalability.Scale horizontally instead vertically.Ideal for applications that serve a lot of request but don't use to need lot of computational power per request.Not so ideal for heavy calculations e.g. massive parallel computing.

- Less problems with concurrency.

❖ Sql

SQL is a database computer language designed for the retrieval and management of data in a relational database. It stands for **Structured Query Language**. This tutorial will give you a quick start to SQL. It cover most of the topic required for a basic understanding of SQL and to get a feel of how it works.

❖ NoSQL

A NoSQL initially alluding to non SQL or non social is an information base that gives an instrument to capacity and recovery of information. This information is demonstrated in implies other than the plain relations utilized in social data sets. Such data sets appeared in the last part of the 1960s, yet didn't get the NoSQL moniker until a flood of fame in the mid twenty-first hundred years. NoSQL data sets are utilized continuously web applications and enormous information and their utilization are expanding over the long haul. NoSQL frameworks are additionally now and again called Not just SQL to accentuate the way that they might uphold SQL-like inquiry dialects.

❖ Git

Git is a free and open source disseminated variant control framework intended to deal with everything from little to extremely enormous tasks with speed and productivity.

It is not difficult to learn and has a little impression with lightning quick execution. It dominates SCM devices like Subversion, CVS, Perforce, and ClearCase with highlights like modest nearby spreading, helpful organizing regions, and different work processes.

❖ GitHub

GitHub, is a provider of Internet's hosting for software development and version control using Git. It offers the distributed version control and source code.. management (SCM) functionality of Git, plus its own features. It pro-vides access control and several collaboration features such as bug tracking, features requests, task management, continuous integration and wikis for every project.

❖ Hugo server

Hugo is a quick and current static webpage generator written in Go, and intended to make site creation fun once more. Hugo is a universally useful site structure. In fact speaking, Hugo is a static site generator. Not at all like frameworks that powerfully fabricate a page with every guest demand, Hugo constructs pages when you make or update your substance. Sites worked with Hugo are incredibly quick and secure. Hugo locales can be facilitated anyplace, counting Netlify, Heroku, GoDaddy, DreamHost, GitHub Pages, GitLab, Pages, Surge, Aerobatic, Firebase, Google Cloud Storage, Amazon S3, Rackspace, Azure, what's more, CloudFront and function admirably with CDNs. Hugo destinations run without the requirement for an information base or conditions on costly runtimes like Ruby, Python, or PHP

❖ Tailwind CSS

Tailwind CSS is basically a utility-first CSS framework for rapidly building custom user interfaces. It is a highly customizable, low-level CSS framework that gives you all of the building blocks you need to build bespoke designs without any annoying opinionated styles you have to fight to override

❖ Material UI

Material-UI is essentially a library that permits us to import and utilize various parts to make a UI in our React applications. This saves a lot of time since the engineers don't have to compose all that without any preparation.

2.2 Project worked on

- ❑ Muse Dashboard:
  - The project in completed in react js, material UI and other various library of JavaScript like chart js and other.
  - http://digimonk.net:1621/dashboard

- ❑Muse Pro Documentation:
  - This is the documentation of muse pro in Hugo server
  - https://digimonk.co/tailwind/tailwind_two/.build/docs/

- ❑ Muse Pro:
  - In this project I used Hugo server to give it a Hugo architecture with CSS library tailwind CSS and another various library of JavaScript like chart js and other. And also maintain the slug.
- https://digimonk.co/tailwind/tailwind_two/.build/

- ❑ Digi monk website:
  - The project in completed in react js, material UI and JavaScript and for apis we used postman.
  - http://digimonk.co:1628/

Chapter 3

Technologies and Requirement

Version and Specification

1) Recommended System Specification:

- A good CPU. and a GPU. with at least 8GB memory.
- Minimum 8GB of RAM.
- Active internet connections so that the system can access the online resources through required link.

2) Recommended Software Specification:

- Visual Studio Code (VS code)
- Postman-win64 - 7.26.1

3) Used Libraries for this project along with their versions number used while making of this project:

- React js – 18.0.1
- Node - 16.14.0
- Node - 14.16.1
- Package Manager - npm 8.3.1
- OS – win32 x64
- Typescript – 4.5.5

Chapter 4

Role's and Profile

As a MERN Developer Intern. Some of the responsibilities were:

- Learned innovation utilized for MERN Stack Developer. HTML, CSS, JavaScript, React JS (planned single page application for better UI), Node JS (for to arrangement server-side delivering) SQL for data set administration.

- Perform task's on the learned skills to improve the worked quality.

- Participate in group project learned team working morals and group the board and work on delicate abilities.

- Make website responsive and increase its functionality.

- Develop the frontend and backend functionality.

- Authentication and security system.

- To acquire the certainty of the clients by giving them a quality item
  .
- Worked on DOM manipulation lifecycle.

- Gather trust in and giving data about the degree of value.

Chapter 5

System Design

Admin side system from where the can maintain the user side system by using CMS and through this side admin also can manage all the transition and details

http://44.204.198.240/admin/home

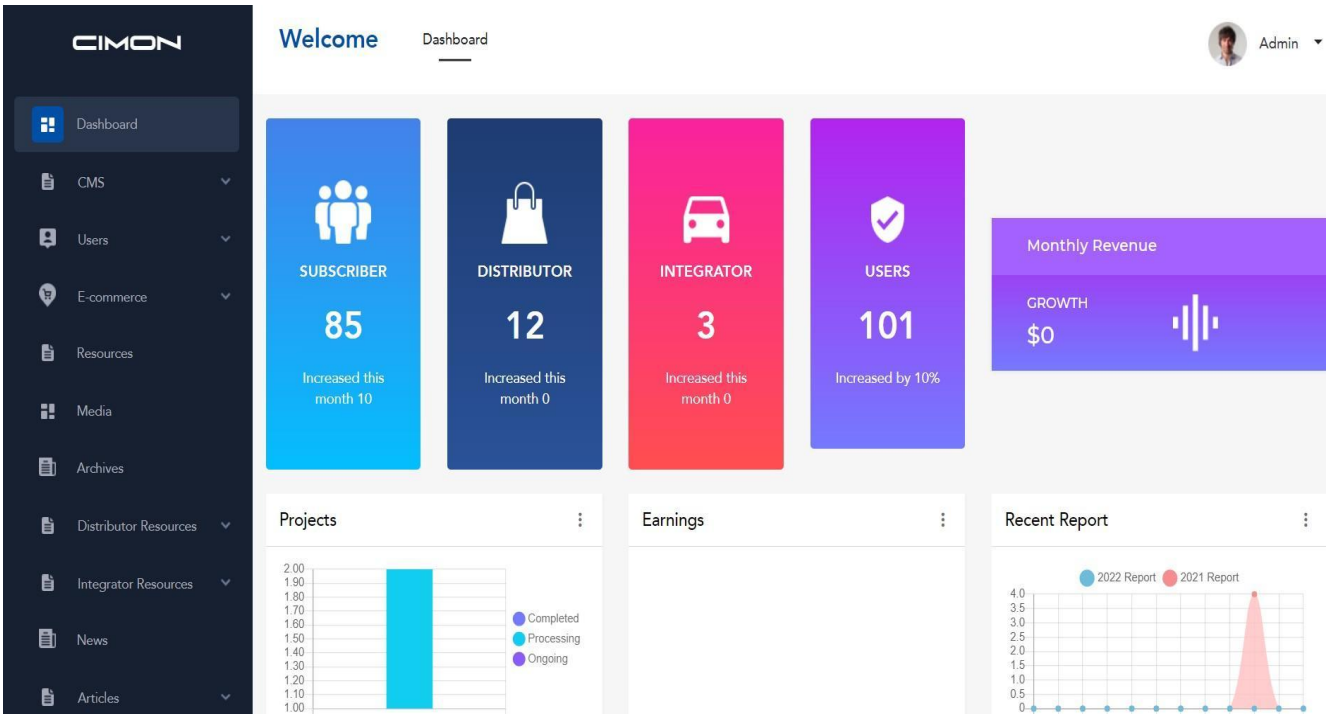


Fig - 5.1

Editing and Control panel with this side we can change meta description , page slug, meta tag , page title, add new pages and many more.

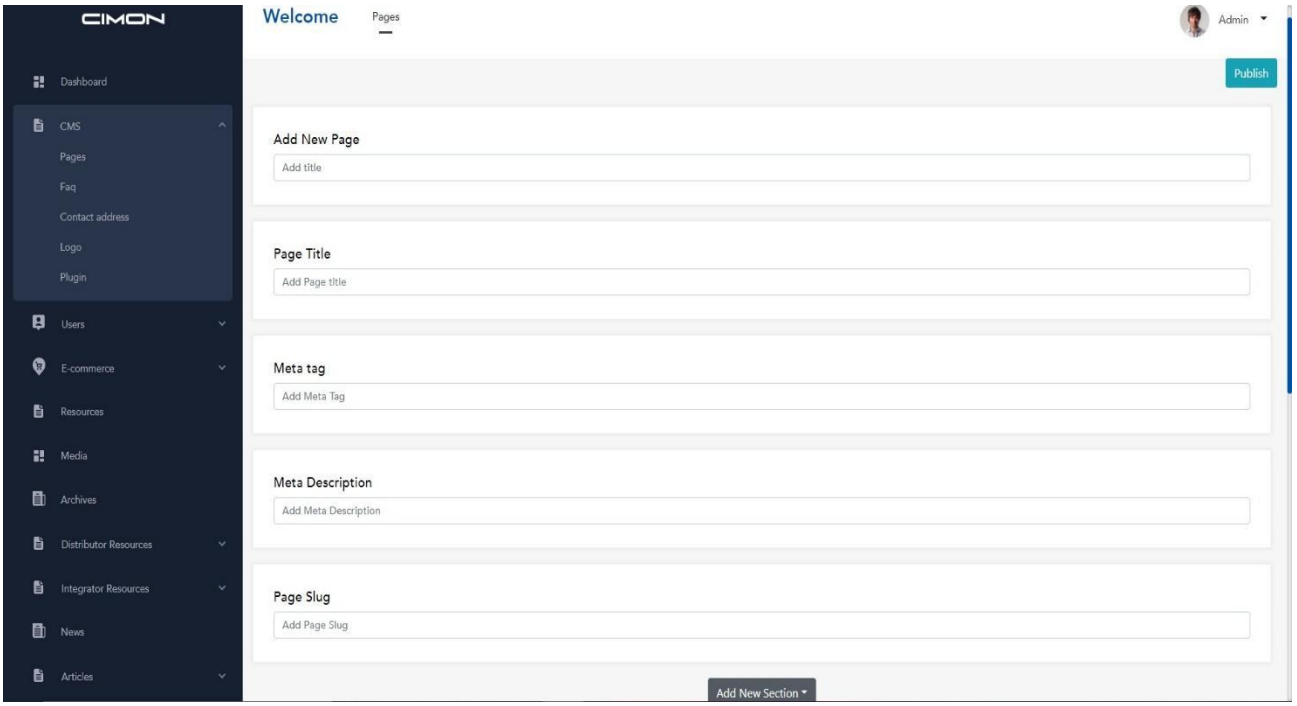


Fig - 5.2

From this page we will create new user and all fields are require in this form we accrue this functionally with formik using YUP validation in it , In this form user get auto generated password very time they required for new password.

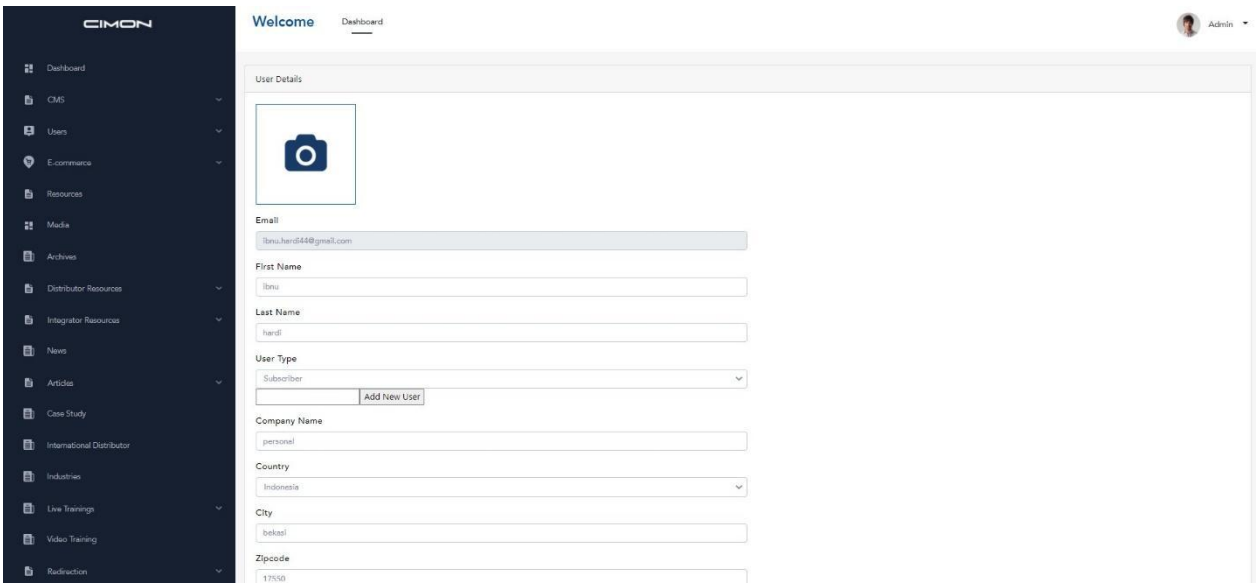


Fig - 5.3

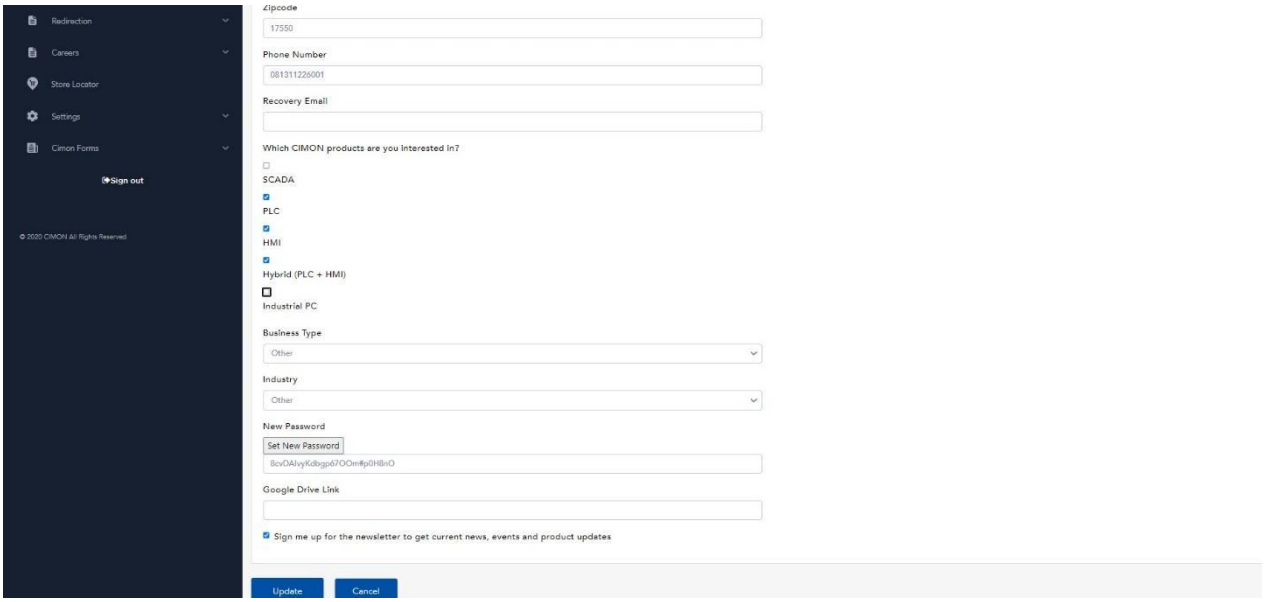


Fig - 5.4

User side system where user get authenticate through login and sign up page.

http://52.91.112.104/products-splash

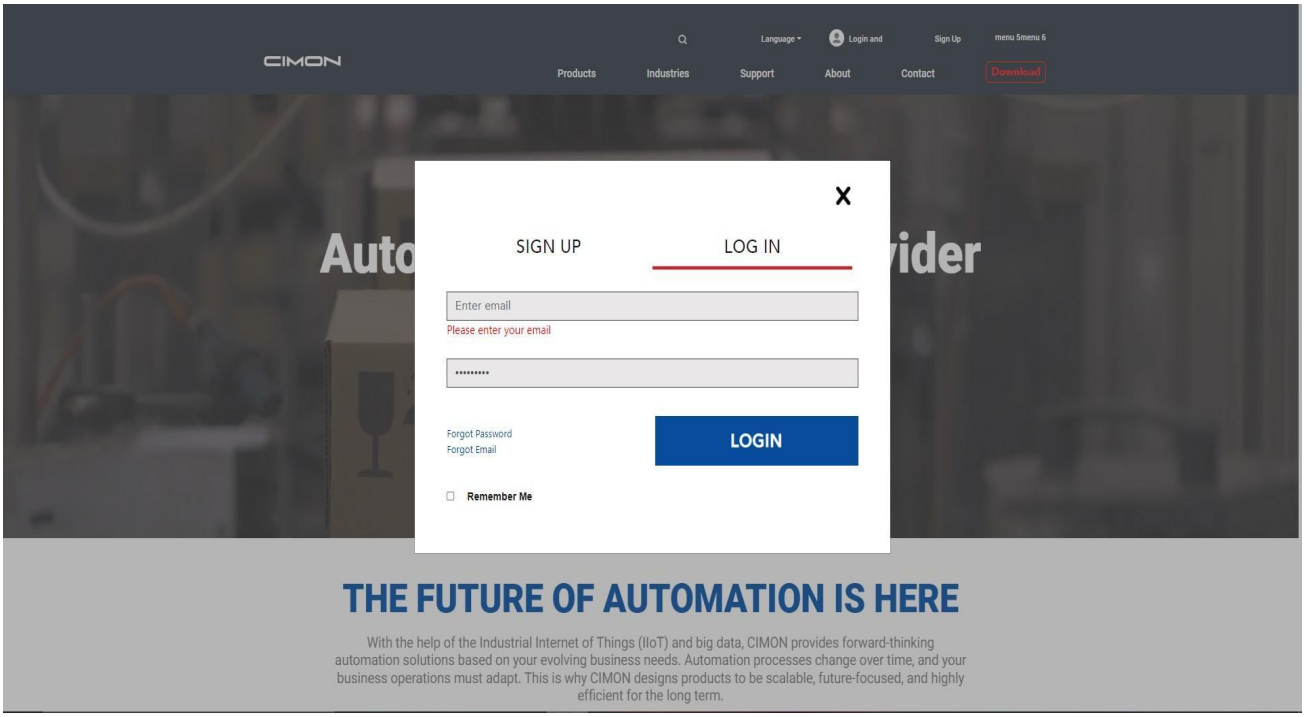


Fig - 5.5

User landing page

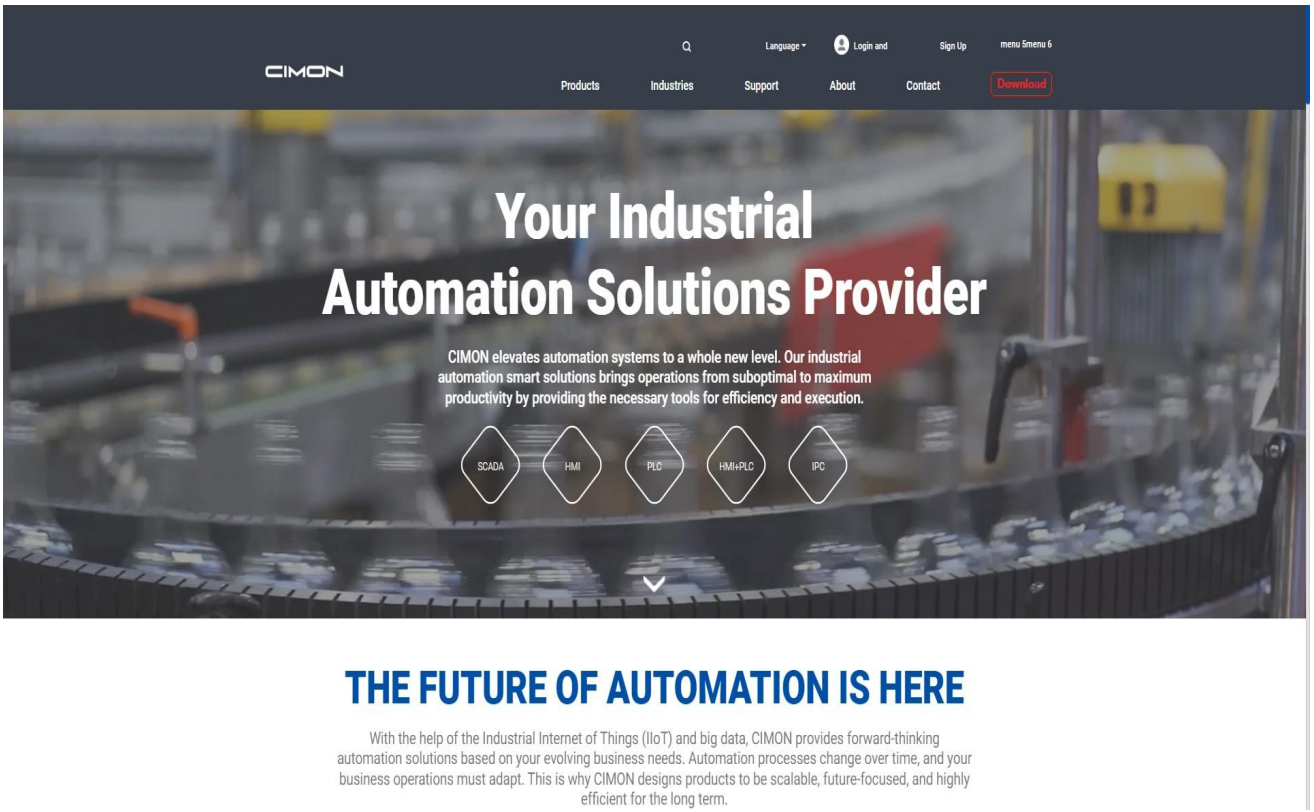


Fig - 5.6

Chapter 7

Conclusion

Internship Experience

During my internship with the company, I worked on 2 clients project and one for the company on its own. The work was challenging, and I learned to work in a team environment and build ready to learn new thing mindset. During the internship I learn many different things which surely going to help me in future. It was a valuable experience.

References

DigiMonk -- URL*:* *https://digimonk.in/*

React js for designing -- URL*:* *https://reactjs.org/*

Swagger UI Fully Hosted in Swagger-Hub for API's -- URL*:* *https://swagger.io/tools/swagger-ui/*

A wrapper library for Zendesk Support using NodeJS.

URL*:* *https://developer.zendesk.com/documentation/ticketing/api-clients/nodejs/*

For CSS styling Material UI

URL: *https://mui.com/*

Formik for form validation with YUP

URL: *https://formik.org/docs/tutorial*

Appendices: