

# **MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR**

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



**Internship Report**

**on**

**MEAN Full Stack Development**

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

**BACHELOR OF TECHNOLOGY**

**in**

**INFORMATION TECHNOLOGY**

Submitted by:

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**0901IT181023**

**Project – 160801**

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Submitted to:

**DEPARTMENT OF INFORMATION TECHNOLOGY**

**MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE**

**GWALIOR - 474005**

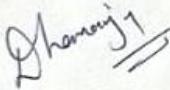
**MAY-JUNE 2022**

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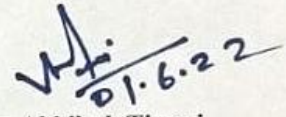
## CERTIFICATE

This is certified that **Dheeraj Kushwah**(0901IT181023) has submitted the Internship report titled '**Mean Full Stack Development**' under the mentor-ship of **Dr. Dhananjay Bisen**, in partial fulfillment of the requirement for the award of degree of Bachelor of Technology in **Information Technology** from Madhav Institute of Technology and Science, Gwalior.



**Dr. Dhananjay Bisen**

Assistant Professor  
Information Technology



**Dr. Akhilesh Tiwari**

Professor and Head,  
Department of IT

# MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

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## 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 Information Technology at Madhav Institute of Technology & Science, Gwalior is an authenticated and original record of my work under the mentor-ship of **Dr. Dhananjay Bisen**, Assistant Prof. ,Department of Information Technology.

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

Date: 27/5/2022

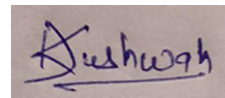
Place: Gwalior

Dheeraj Kushwah

0901IT181023

IV Year,

Information Technology



# **MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR**

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## **ACKNOWLEDGEMENT**

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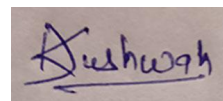
I am sincerely thankful to my faculty mentors. I am grateful to the guidance of **Dr. Dhananjay Bisen**, Assistant Prof. ,Department of Information Technology, for his continued support and guidance throughout the project. I am also very thankful to the faculty and staff of the department.

Dheeraj Kushwah

0901IT181023

IV Year,

Information Technology



## **ABSTRACT**

**Abstract:-** This is a concise study of the evolution of the full stack development due to advancement of technology and the introduction of cloud. It helps give you a better understanding of what full stack development was and how full stack development evolved, it shows a take on the fact that full stack development is not dead and has just evolved to better accommodate the user's needs.

**Keyword:** Full Stack Development, Cloud Computing, Networking Model, Full Stack Developer, Front-end Development, Back-end Development, Stack, Cloud, API, Development

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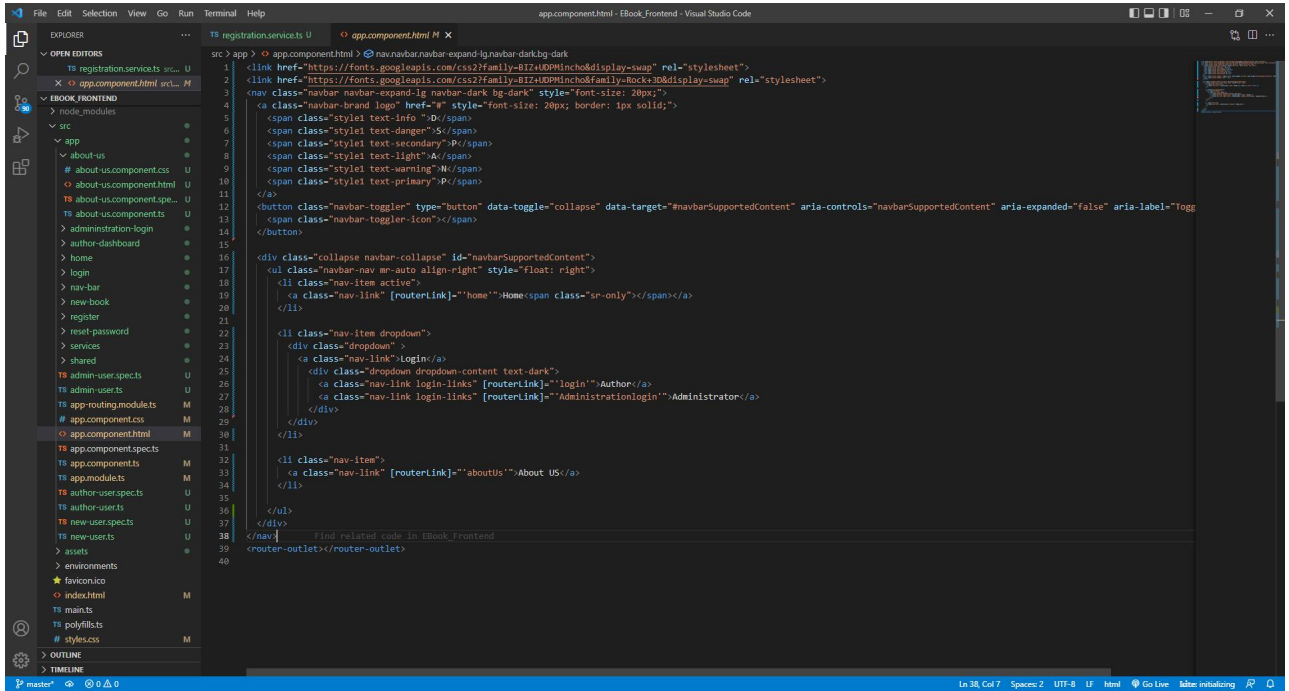


Fig-1

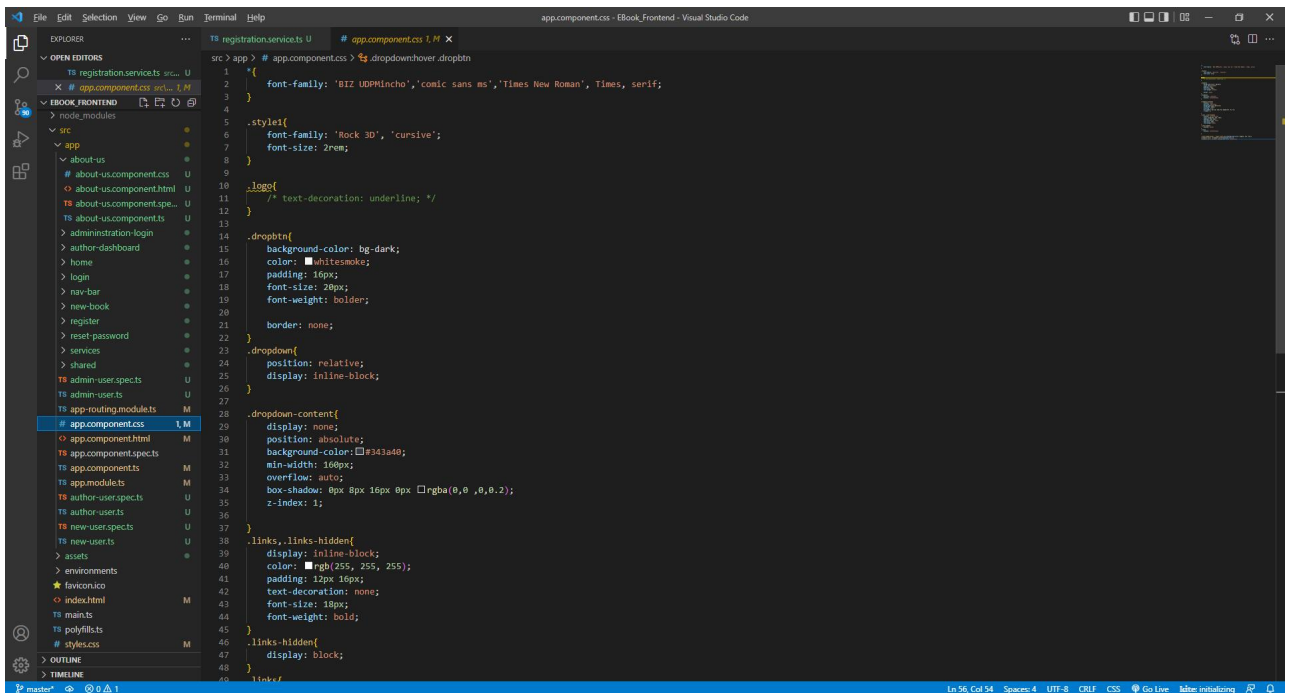


Fig-2

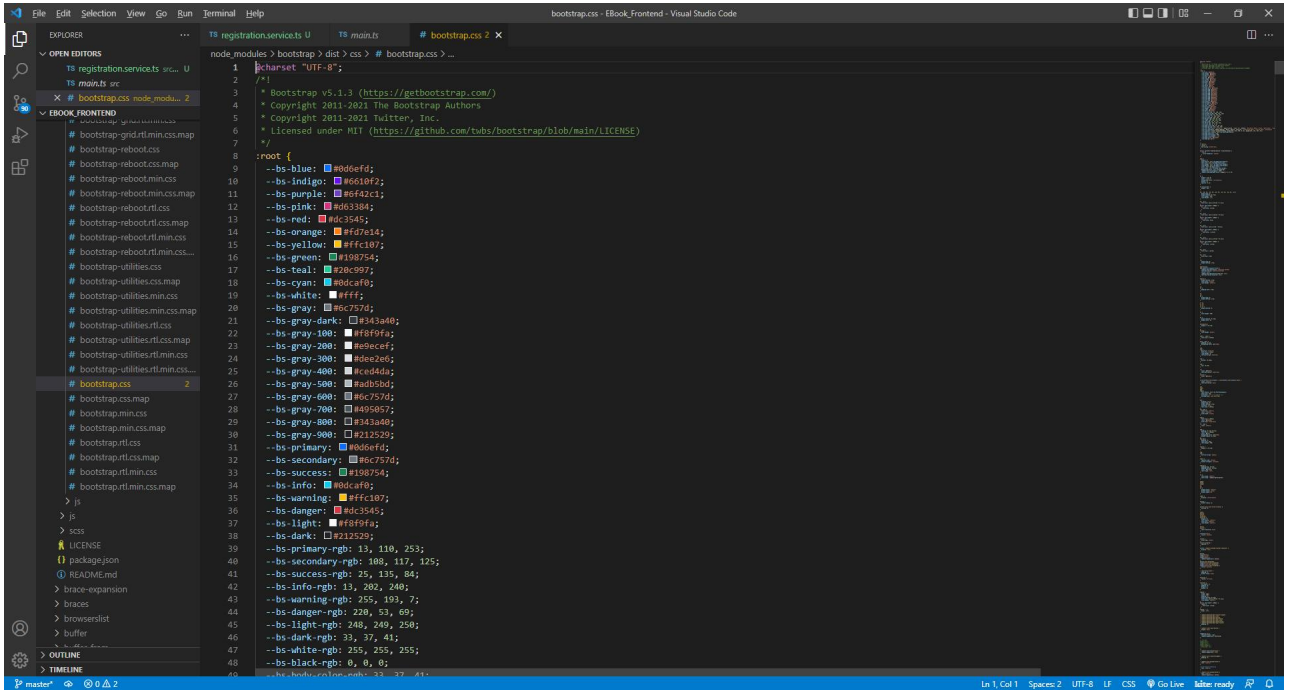


Fig-3

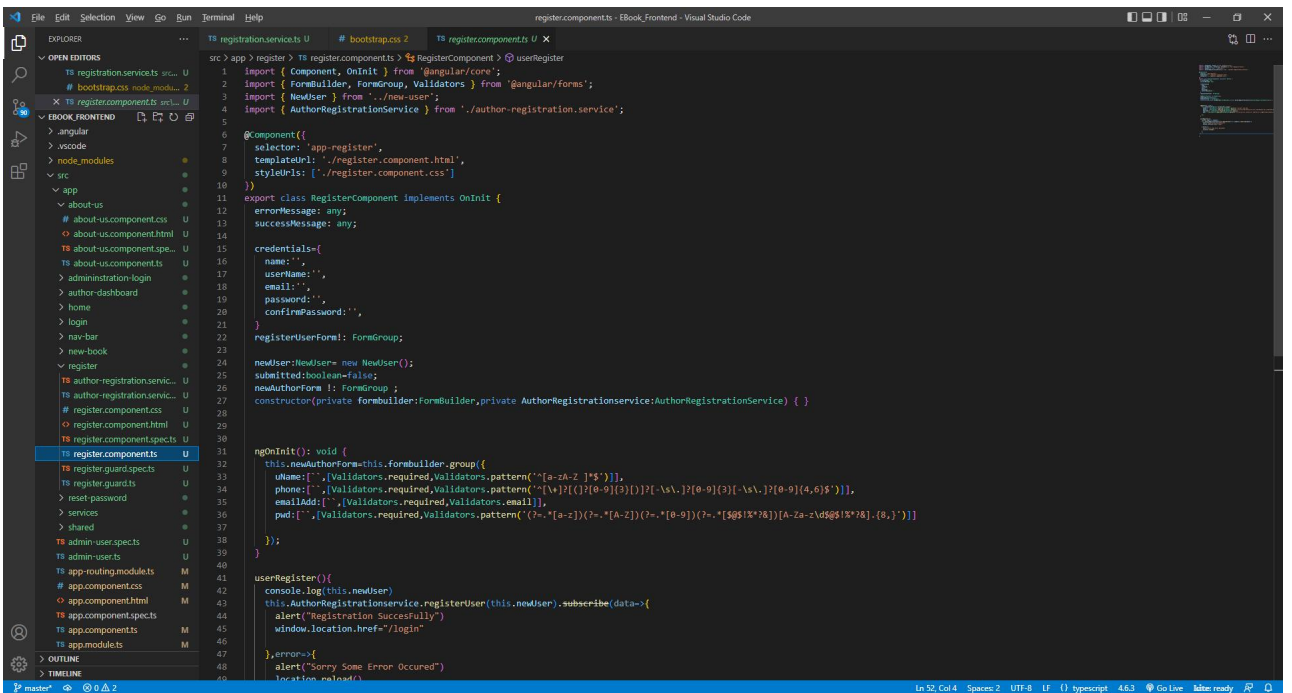


Fig-4

```
1 package com.infy.ebook.entity;
2
3 import javax.persistence.Column;
4
5 @Entity
6 @Table(name="BOOK")
7 public class NewBook {
8     @Id
9     @GeneratedValue(strategy = GenerationType.IDENTITY)
10    private int b_id;
11
12    @Column(name="bookName", nullable = false)
13    private String bookName;
14
15    @Column(name="authorName", nullable = false)
16    private String authorName;
17
18    @Column(name="Description", nullable = false)
19    private String description;
20
21    public NewBook() {
22        super();
23    }
24
25    public int getB_id() {
26        return b_id;
27    }
28
29    public void setB_id(int b_id) {
30        this.b_id = b_id;
31    }
32
33    public String getBookName() {
34        return bookName;
35    }
36
37    public void setBookName(String bookName) {
38        this.bookName = bookName;
39    }
40
41    public String getAuthorName() {
42        return authorName;
43    }
44
45    public void setAuthorName(String authorName) {
46        this.authorName = authorName;
47    }
48
49    public String getDescription() {
50        return description;
51    }
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Fig - 5

```
1 Drop database Ebook;
2 CREATE DATABASE Ebook;
3 SHOW DATABASES;
4 USE ebook;
5
6 CREATE TABLE Author (
7     Author_Id INT auto_increment,
8     Name VARCHAR(50) NOT NULL,
9     Number VARCHAR(10) NOT NULL,
10    PASSWORD VARCHAR(50) NOT NULL,
11    EMAIL VARCHAR(50) UNIQUE,
12
13    constraint EB_AUTHOR_ID primary key (Author_Id)
14
15    );
16
17 CREATE TABLE BOOK(
18     B_Id INT auto_increment,
19     bookName VARCHAR(100) NOT NULL,
20     AuthorName VARCHAR(100) NOT NULL,
21     Description VARCHAR(500) NOT NULL,
22
23     constraint EB_B_ID primary key( B_Id )
24
25     );
26 /ALTER TABLE BOOK ADD CONSTRAINT EB_Author_Id FOREIGN KEY ( Author_Id ) REFERENCES Author(Author_Id);
27 ALTER TABLE BOOK ADD IS_COMPLETED bit(1);
28 ALTER TABLE BOOK ADD IS_STARTED bit(1); /*
29
30 CREATE TABLE ADMIN(
31     ADMIN_ID INT auto_increment,
32     NAME VARCHAR(50) NOT NULL,
33     NUMBER VARCHAR(10) NOT NULL,
34     PASSWORD VARCHAR(50) NOT NULL,
35     constraint EB_ADMIN_ID primary key ( ADMIN_ID)
36
37     );
38
39
40
41 insert into ADMIN values(1,'sp1248R9074',9876243345,'Pay1@1234');
42
43 insert into ADMIN values(2,'dk9074Rai1245',9876243345,'kush@9074');
44
45 insert into Author values(1,'Dheeraj',9074215140,'Dheeraj@1234@', 'dheel1234@gmail.com');
46
47 insert into Author values(2,'Suraj',9087654321,'Suraj@1234@', 'sur1234@gmail.com');
48
49 insert into Author values(3,'Pranjal1',9807654321,'Pranjal1@1234@', 'pral1234@gmail.com');
50
51 insert into Author values(4,'Piyush',9780654321,'Piyush@1234@', 'piy1234@gmail.com');
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Fig - 6

## Chapter A:

### A.a INTRODUCTION

Full stack development refers to the creation of all three components of a Web Application

- A. Frontend (Which is used by User)
- B. Backend (Which is used by both User and Database)
- C. Database (User to store the data Systematically)

MongoDB, Angular, Express JS, and Node JS are all abbreviated as MEAN. Each framework in this stack is widely used and supported by a big and active community. This JavaScript-based tech stack has revolutionized web development by utilizing JavaScript for server-side scripting via Node JS.

### A.b Internship Objective

A Full Stack Web Developer is in charge of designing and maintaining apps using cutting-edge web technology. Understanding the business and Startups demands, project requirements, and technological specifications of web and mobile applications are all part of this.

Full-stack development is in high demand these days. Because now a days Businesses and Startups require full stack developers because of there vast knowledge and problem solving capabilities in all the fields Because full-stack developers can deal with numerous technologies, they can manage more aspects of a project than a typical coder.

They save firms money because they can do the work of numerous specialists on their own. A full-stack developer is knowledgeable with a variety of stacks, including the MEAN and LAMP stacks. Their extensive understanding in a variety of fields enables them to handle the distinct unique requirements of their projects.

In India, the minimum salary for a rookie full-stack engineers is around 6 Lakh per Annum, with senior professionals earning up to 40 Lakh per Annum. Because of their unique skill sets and talents, businesses are prepared to offer full-stack engineers high wages

### A.c Project

During this Internship we were taught about the technology including all the three fields and the framework which we are going to use in Project later we work on a Project in Team of 6 and We Create a Website for Creating an 'E-Book' Website

## **A.d Applicability**

Via This Angular Website we can Create E-Book online for free and Later we can made our Platform an All Author Platform so that other users can see appreciate each other work and also convert out E-book to Audio Books, manuals and Other Reference materials.

## **Chapter B: Literature Review**

As you may have deduced from the above reasons, the future alignment of both ideologies appears to be a pipe dream, but subject matter experts believe that gradually but steadily, a unified view will emerge in the industry, which will be responsible for moulding the future of programming.

A unified definition of full stack web development for the future was provided in a recent literature review. It reads, "Full stack development is a process that tackles all stack layers and thereby delivers a comprehensive, implementable solution to business needs." Full stack developers have extensive knowledge across all stack layers as well as expertise in a few areas. In a given stack, they should be able to produce a minimal viable product."

## **Chapter C: Preliminary design**

Internship Project is made using Agile Methodology, Git hub, and Various other Technologies for Front-end , Back-end and database

### **C.a Agile Methodology**

The Agile methodology is a style of Software development life cycle model that divides a project into different parts or sprints. It entails continual cooperation with Team Members as well as continuous improvement at each Sprint.

Once the job begins, teams go through a planning, coding, and evaluation cycle. During each sprint all these steps are performed and at the end of each spring a working model is created.

which can be shown to the stake holders so that they can tell us about improvement if they need

Collaboration is essential, both with team members and project officials.

## **C.b Github**

GitHub is a web-based interface that is used by team of developers to make work upto date its employs Git, an open source version control software that allows several team members to make independent changes to a project at the sametime.

GitHub encourages teams to work together to build and edit their work because it enables for real-time collaboration.

## **C.c Front-end**

### **C.c.a HTML**

In simple terms, HTML is the backbone of a website or web application. The whole structure of a website is written in HTML.

For example, if we take a human body, HTML can be referred to as the skeleton structure of a body.

Refer to Figure 1.

### **C.c.b CSS**

CSS, or Cascading Style Sheets, is a basic language designed to make web page presentation and appeal easier. CSS enables the application of font styles and other design elements to web pages. More importantly, CSS allows you to do so independently of the HTML that distinguishes each web page.

CSS is simple to learn and understand, yet it gives you a lot of control over how an HTML document looks.

Refer to Figure 2 for a screenshot.

### **C.c.c BootStrap**

Bootstrap is a free and open-source coding system fully for building responsive websites and creative, user-friendly web applications.

It is already written CSS styling code, and developers utilised it to easily construct websites.

It is the most widely used HTML, CSS, and JavaScript framework for creating responsive websites of all sizes. It eliminates numerous problems that we previously experienced, and it also assists us in decreasing the labour effort for designing.

Refer to Figure 3 for a screenshot.

### **C.c.d Angularjs**

Angularjs Bootstrap is a set of free and open-source tools for building mobile websites and online applications.

It resolves numerous issues that we previously encountered, and the other was the cross-browser compatibility issue.

Nowadays, websites are designed to be compatible with all browsers and screen sizes.

### **C.c.e TypeScript**

TypeScript is a dynamically typed JavaScript superset.

Every JavaScript application is also a TypeScript code. TypeScript lets you to include type declarations, comments, assertions, guards, and aliases. After that, the TypeScript program is compiled into JavaScript. If your specified type requirements are not met, the compiler will warn you.

Refer to Figure 4 for a screenshot.

### **3.c.f Angular Material**

Google created the design language Angular Material Design. It was created in 2014 and was included into the Android operating system. It is also accessible for additional platforms (Angular, Web, iOS, Flutter, and so on). Material Design allows developers to establish platform consistency in their applications. It employs the paper and ink paradigm. It includes movement to help in decision-making and navigation. It works similarly to Bootstrap, and we may create our website using pre-written code.

## **C.d Back-end**

### **C.d.a Spring Framework**

The most popular enterprise Java software development framework was Spring. Millions of developers around the world use Spring Platform to develop high-performance, easily testable, and reused code.

Rod Johnson built it, and it was first distributed in June 2003 under the Apache 2.0 license.

Spring is just a featherweight in size and transparency. The easiest version of the Web application is around 2MB in size.

The essential capabilities of the Spring Framework can be used to construct any Code, but there are additions for web applications apps on top of the Standard EE platform. The Spring framework seeks to simplify J2EE development while simultaneously supporting good programming standards.

## **C.e Database**

MySQL is a fast and simple RDBMS that is utilised by many large and small businesses. MySQL AB, a Swedish business, produces, sells, and supports the system.

One may construct a real-time database feature to use the Mysql.

Refer to Figure 6 for a screenshot.

# Project Screenshot






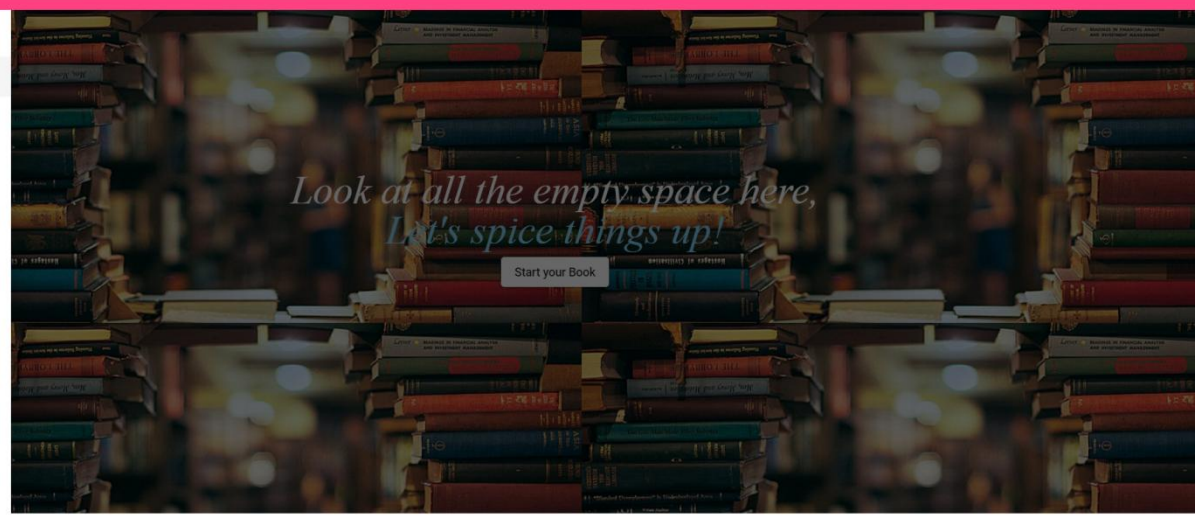
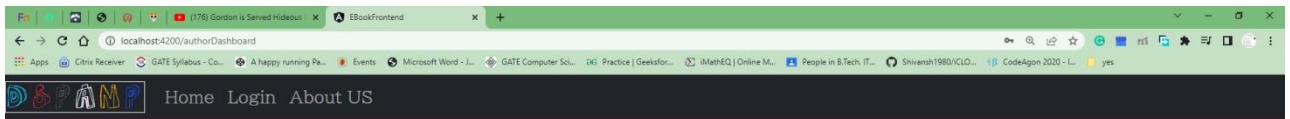
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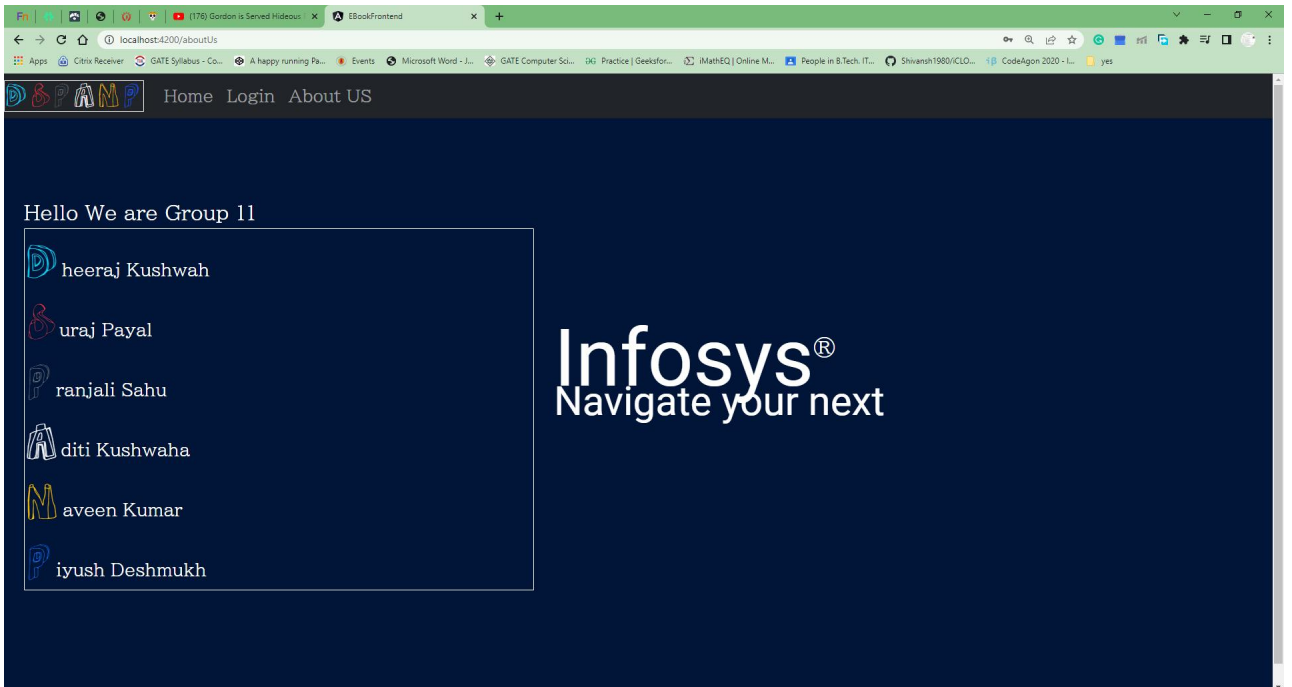
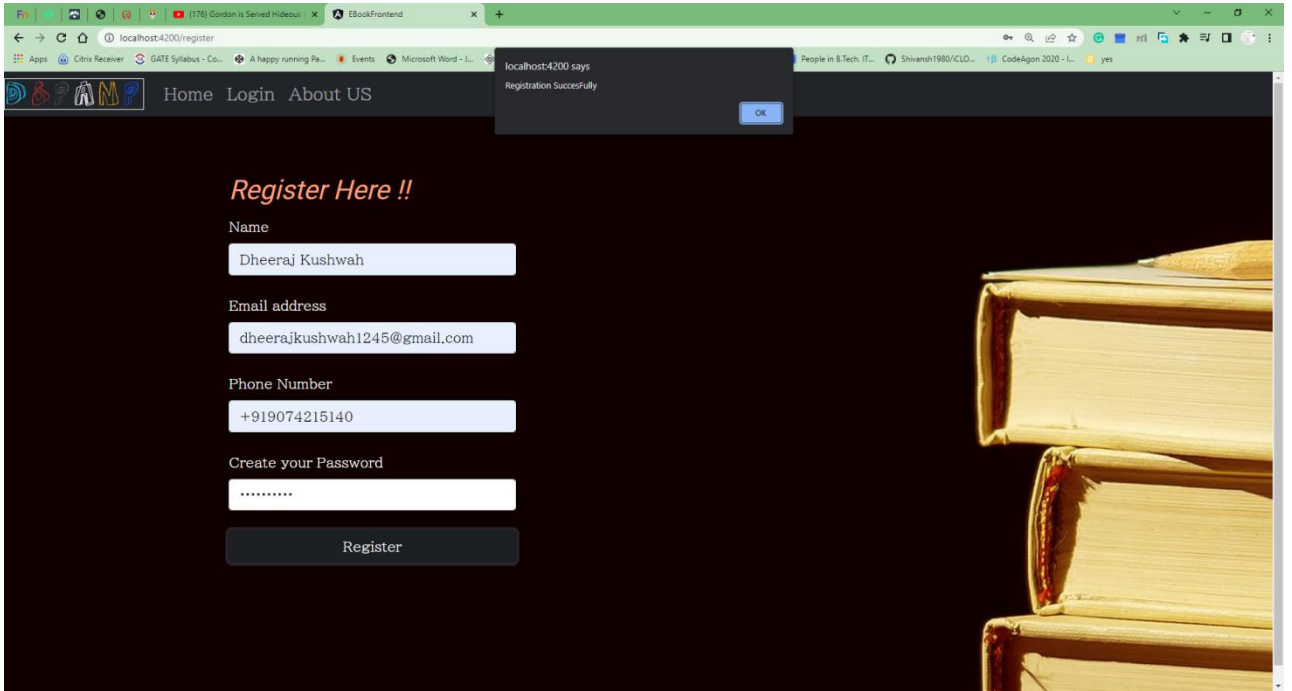
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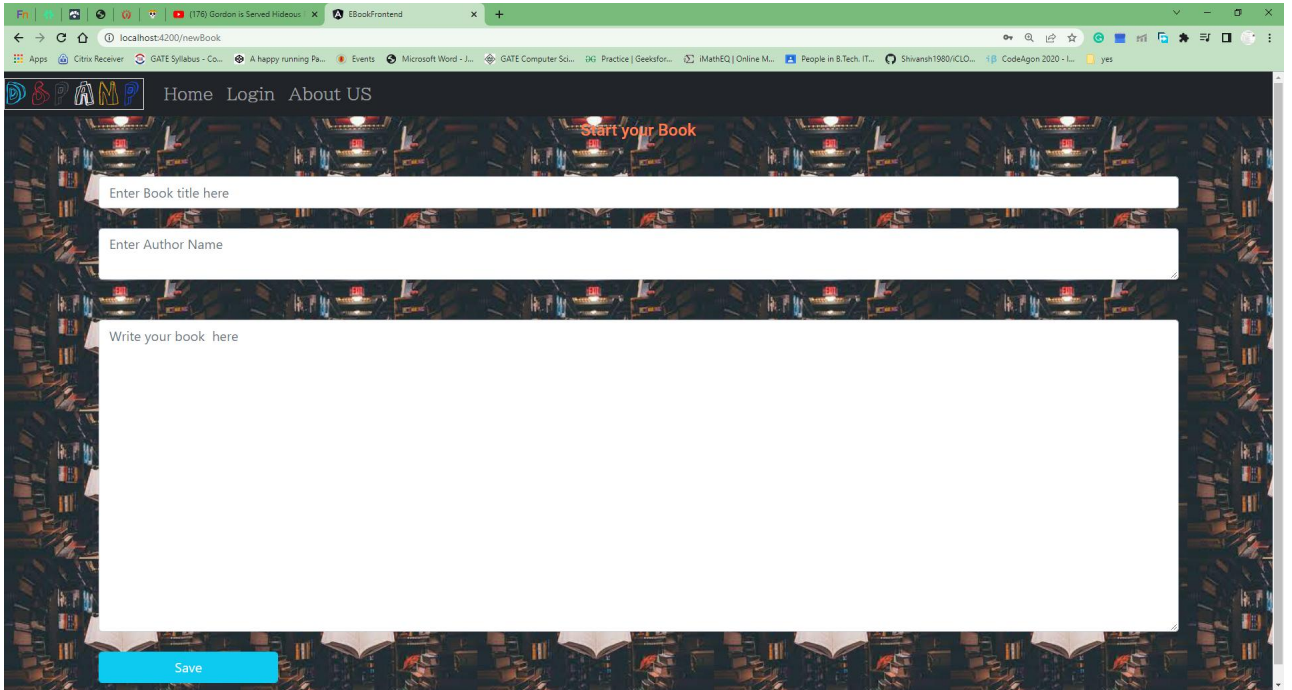
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**Certificate:**



## **Internship Marks:**

During our Internship we through various of tests which we have to pass to successfully complete our Internship

**Backend:** 51 out of 100 (Including both Hands-on Test and MCQ test)

**Frontend:** 80 out of 100 (Including both Hands-on Test and MCQ test)

**Project:** 78 out of 100 (Including Both Sprint)

## **Conclusion and Recommendations:**

We Started project via Starting first Writing the Backend in Eclipse Software and Spring Initializr and create a Maven Project and Import project in Eclipse and then we Start Creating Frontend using Angular and VS Studio then Comes the last Step is Connecting the Backend With Frontend and Viola our project is working now

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