

# **Full Stack Web Developer Intern**

## **Internship Report**

Submitted for the partial fulfillment of the degree of

## **Bachelor of Technology**

In

## **Computer Science & Design**

**Submitted By**

**Siddhant Jain**

**0901CD211056**

**UNDER THE SUPERVISION AND GUIDANCE OF**

**Prof. Mona Pandey Sharma**

**Assistant Professor**

**Department of Computer Science & Engineering**



**MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR (M.P.), INDIA**  
**माधव प्रौद्योगिकी एवं विज्ञान संस्थान, ग्वालियर (म.प्र.), भारत**

**(Deemed to be University)**

**NAAC ACCREDITED WITH A++ GRADE**

**January-May 2025**

## DECLARATION BY THE CANDIDATE

I hereby declare that the work entitled "Full Stack Web Developer Intern" is my work, conducted under the supervision of **Prof. Mona Pandey Sharma, Assistant Professor**, during the session Jan-May 2025. The report submitted by me is a record of bonafide work carried out by me.

I further declare that the work reported in this report has not been submitted and will not be submitted, either in part or in full, for the award of any other degree or diploma in this institute or any other institute or university.

Siddhant Jain

**Siddhant Jain**

**0901CD211056**

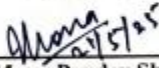
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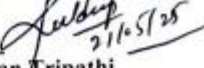
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This is to certify that the above statement made by the candidates is correct to the best of my knowledge and belief.

**Guided By:**

  
**Prof. Mona Pandey Sharma**  
**Assistant Professor**  
CSE  
MITS, Gwalior

**Departmental Project Coordinator**

  
**Dr. Kuldeep Narayan Tripathi**  
**Assistant Professor**  
CSE  
MITS, Gwalior

  
21/05/25  
**Approved by HOD**

**Dr. Manish Dixit**  
**Dr. Manish Dixit**  
**Prof. & HOD**  
of CSE  
CSEI, T.S, Gwalior  
MITS, Gwalior

## PLAGIARISM CHECK CERTIFICATE

This is to certify that I a student of B.Tech. in **Computer Science and Design** have checked my complete report entitled "**Full Stack Web Developer Intern**" for similarity/plagiarism using the "Turnitin" software available in the institute.

This is to certify that the similarity in my report is found to be *20%*, which is within the specified limit (30%).

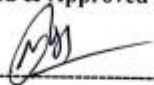
The full plagiarism report along with the summary is enclosed.

*Siddhant Jain*

**Siddhant Jain**

**0901CD211056**

Checked & Approved By:



**Prof. Mahesh Parmar**  
Assistant Professor  
CSE  
MITS, Gwalior

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## ABSTRACT

This report provides an in-depth overview of the full stack web development internship. Concluded on 19th May. The main goal of this internship was to gain hands-on experience with the most recent web development methods and comprehend the process of creating, producing, and maintaining real web applications. My primary focus was on working with MySQL databases, Node.js, and MongoDB for efficient data management. We also acquired knowledge on utilizing growth equipment, which are commonly employed in the software industry. This has helped to connect academic learning with practical application and has enhanced job readiness in the technical field.

**Keywords :** Database Management . MongoDB , Node.js , MySQL etc.

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## 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, Gwalior** to allow me to continue my disciplinary/interdisciplinary internship as a curriculum. I extend my gratitude to the Vice Chancellor of the institute, **Dr. R. K. Pandit** and Dean, Faculty of Engineering & Technology, **Dr. Manjaree Pandit** for this.

I would sincerely like to thank my department, **Department of Computer Science and Engineering**, 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 **Prof. Mona Pandey Sharma**, Assistant Professor, Department of Computer Science and Engineering, for continued support and close mentoring throughout the internship. I am also very thankful to the faculty and staff of the department.

Siddhant Jain

Siddhant Jain

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## ACRONYMS

**MERN**..... MongoDB , ExpressJs , ReactJs , NodeJs

**VS** ..... Virtual Studio

**Pvt** ..... Private

**Ltd** ..... Limited

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## CHAPTER 1: INTRODUCTION

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Internships hold significant value in a student's educational path. They serve as a bridge between the knowledge gained in school and the practical skills required in the professional world. As a final-year student of computer science and design at MITS, Gwalior, I had the privilege of participating in a comprehensive web development internship at Bonasys IT solutions Pvt. Ltd. from January 20<sup>th</sup> to May 19<sup>th</sup> .

This internship provided me with practical experience in comprehending and executing the process of developing, maintaining, and delivering web applications in real-life situations. The primary objective of this internship was to acquire practical experience in collaborating with the MERN stack. These technologies are extensively employed in the software industry to create contemporary web applications.

During my internship, I had the opportunity to work on both the frontend and backend of various web projects. In addition to gaining knowledge in managing data through databases, I also acquired skills in developing APIs and creating user-friendly interfaces. Alongside refining my technical skills, the internship also had a substantial impact on improving my communication, problem solving, and time-management abilities. I gained a deeper comprehension of how software development teams collaborate, how responsibilities are allocated, and how to successfully meet project deadlines.

In addition to my proficiency in utilizing tools such as git, github, and visual studio code, I have also acquired knowledge in collaborative software development. This report provides a comprehensive overview of my internship experience. It encompasses the company's profile, the technologies employed, the tasks carried out, the challenges encountered, and the outcomes achieved through my learning.

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## CHAPTER 2: TECHNOLOGY AND TOOLS USED

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### Technologies and tools Employed :

During my internship at Bonasys, I discovered various solutions. I collaborated with the team, which consists of MERN Stack, and other crucial development tools. These technologies assisted me in constructing a comprehensive web application that seamlessly integrated frontend, backend, and database components.

- **Mongodb:** Used for storing data in a flexible, document-based format I executed basic operations and handled database structure using mongoose.
- **ExpressJs :** I constructed multiple routes and linked the app to the database. I constructed various parts, supervised the state using hooks, and dealt with events.
- **NodeJs :** Runtime environment allowed for the execution of javascript code on server. I utilized it to manage the backend and establish a connection between the frontend and the database.
- **Git & Github:** Used for version control and code management I consistently updated and uploaded code to the repository.
- **Visual studio code:** My main code editor, which supported extensions, debugging, and integrated terminal for easier development .
- **Browser developer tools:** Played a significant role in inspecting, testing, and debugging frontend elements during the development process .

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## CHAPTER 3: COMPANY PROFILE

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Bonasys IT solutions Pvt. Ltd. Is a rapidly growing technology company that specializes in providing top-notch software solutions and digital services. The company's goal is to assist businesses in expanding by leveraging the capabilities of contemporary technologies, particularly in web development, mobile applications, software solutions, and consulting services.

Bonasys is committed to delivering efficient, scalable, and tailored products that cater to the specific requirements of every client. The company provides services in various domains, such as web application development, e-commerce platforms, digital marketing, user interface/user experience design, and cloud-based solutions. By staying up-to-date with the latest technological advancements and industry practices, Bonasys provides cutting-edge, innovative, and secure solutions that empower businesses to thrive in the digital landscape.

The Bonasys technical team comprises highly skilled individuals who are deeply passionate about coding, creativity, and finding practical solutions to real-world challenges. They employ a diverse array of technologies, such as javascript frameworks, PHP, Python, React, Node.js, MongoDB, and others, based on the specific project needs. The team adheres to established software development practices, version control systems, and testing methodologies to ensure the quality of their products.

As an intern, I was a member of the full stack web development team, where I had the opportunity to gain practical experiences in both frontend and backend development. The work atmosphere at Bonasys is both professional and amicable, and the team members are always ready to assist and mentor new employees.

Bonasys IT solutions Pvt. Ltd. Continues to expand by embracing new challenges and ensuring client satisfaction. It fosters learning, collaboration, and creativity, making it an ideal environment for students and newcomers to embark on their tech careers.

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## CHAPTER 4: ROLES AND RESPONSIBILITIES

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During my internship at Bonasys IT Solutions Pvt. Ltd. as a Full Stack Web Developer, I worked on both frontend and backend tasks using the MERN stack. Below are the key roles and responsibilities I carried out during the internship .

### • Frontend Development :

I was responsible for building user interface components using React.js. I designed responsive web pages using HTML, CSS, and JavaScript and handled user interactions effectively. I also used React Hooks for managing state and ensured that the code was modular and reusable for better maintenance.

### • Backend Development :

On the backend side, I developed RESTful APIs using Express.js and Node.js. I implemented different routes to perform operations such as GET, POST, PUT, and DELETE. I also worked on connecting the backend with MongoDB and managed server-side logic and basic error handling.

### • Database Handling :

I developed and maintained data structures using mongoose for MongoDB. I carried out basic operations on user and project data, making sure that the data was accurately stored and retrieved using APIs.

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- **Testing and Debugging :**

To guarantee the seamless operation of the application, I utilized postman to test APIs and browser developer tools to identify and resolve any frontend problems. I resolved layout issues, functionality bugs, and API response errors as they arose during the development process.

- **Version Control :**

I consistently employed git for monitoring code modifications and github for uploading my work to the repository. This practice ensured a clean code history and facilitated easy rollbacks if necessary.

- **Learning and Collaboration :**

Throughout the internship, I had the opportunity to engage with my mentor, who guided me in comprehending the practical aspects of software development. I adhered to coding best practices, refined my coding style based on feedback, and remained dedicated to expanding my knowledge throughout the project.

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## CHAPTER 5: NATURE OF WORK

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During my internship at Bonasys, I discovered various solutions. I had experience working in the fieldS of full-stack web development, utilizing the MERN stacks. My primary responsibilities at work revolved around comprehending the interplay between various layers of a web application and developing basic, efficient components for both the frontend and backend. I was engaged in learning and executing fundamental development tasks, such as designing forms, creating APIs, managing user data, establishing connections between the frontend and backend, and utilizing MongoDB for data management. My team provided clear explanations for the tasks, and I was guided on utilizing tools such as visual studio code, Github, and postman. In summary, the nature of my work allowed me to enhances my practical skill and gain a deeper understanding of full stack development.

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## CHAPTER 6: LEARNING OUTCOMES

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### Acquiring Knowledge

Following knowledge that I acquired are mention below :

#### 1. Technical skills.

- Learned how to use core technologies of the MERN stack mongodb, express .
- The importance of using proper grammar and punctuation in written communication.
- Got comfortable using development tools like visual studio code, git, github, postman, and mongodb compass .
- Gained experience in writing simple REST APIs and connecting them with the frontend .
- Understood how to use axios for making API requests and managing state using usestate and useeffect in react .

#### 2. Software Development Practices.

- Followed a basic development workflow, including setting up a local environment and testing backend API's.
- Learned the importance of code organization and how to structure files and folders in both frontend and backend .
- Utilized version control with git and collaborated through github.

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### **3. Developing Problem-Solving Abilities.**

- Faced some minor technical problems while constructing forms, managing states, and handling routes, which enhanced my debugging skills .
- Learned how to read documentation and search for solutions online when errors occurred .

### **4. Collaboration and interpersonal abilities :**

- Attended virtual team discussions and learned how teams communicate about ongoing tasks and share progress .
- Understood the role of feedback in improving code quality and learning new things .

### **5. Professional experience :**

- Learned the importance of completing tasks on time and adhering to structured schedules .

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## CHAPTER 7: CONCLUSION

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The internship at Bonasys Solutions Pvt. Ltd. I learned a lot and had a great time. It provided me with the opportunity to utilize the knowledge I gained in my college courses in practical projects. Through my experience as a full stack web developer intern, I acquired hands-on experience with various technologies, such as MongoDB, Express.js, React.js, and Node.js.

Throughout the internship, I worked on various tasks related to both frontend and backend development. This experience allowed me to gain a comprehensive understanding of how a complete web application functions, encompassing the creation of user interfaces, data management, and server-side logic.

In addition to learning how to use tools like Git, Github, and Visual Studio Code, I also gained knowledge about their applications in the software industry. In addition to gaining technical knowledge, I also enhanced my soft skills, including time management, communication, and problem-solving abilities. I also acquired the ability to take ownership, meet deadlines, and work more effectively.

My trainer, Mr. Vijay Rathore, who guided me at every step, and I am genuinely grateful for his support. This internship has boosted my confidence and equipped me with the necessary skills for future job opportunities in the IT industry. It was an excellent chance to gain insight into the inner workings of the software industry and understand the expectations placed on a professional web developer. I am confident that the skills and experience I acquired during this internship will greatly benefit my future career.

# OFFER LETTER OF INTERNSHIP



Bonasys IT Solutions Private Limited CIN: U72900MP2017PTC044416 Reg Number: 44416

## INTERNSHIP OFFER LETTER

Date: 18/Jan/2025

Dear **Siddhant Jain**,

In reference to your application, we would like to congratulate you on being selected for an internship with **Bonasys IT Solutions Private Limited** based at **Pune**. Your Internship is scheduled to start effective **20/Jan/2025 to 22/May/2025**. All of us at **Bonasys IT Solutions Private Limited** are excited that you will be joining our team!

On behalf of **Bonasys IT Solutions Private Limited**, We are excited to extend an offer to you for an internship position within our **Development Team**. This is a Remote Internship . The position is for a **Full Stack Web Development Intern**.

During your internship, you will get a stipend of **Rs. 5,500/-** per month. You will not be under the Company's direct payroll. Therefore, you will not be receiving any employee benefits, including but not limited to health insurance, vacation, or sick pay, that the Company offers to its permanent employees.

Please bring [Aadhar Card, Academic Certificates] documents with you on your first day to complete your Internship profile.

As such, your internship will include training/orientation and focus primarily on learning and developing new skills and gaining a deeper understanding of concepts through the hands-on application of the knowledge you learned in class.

The project details and technology platform will be shared with you on or before the commencement of the Internship.

Again, congratulations and we look forward to working with you.

Yours Sincerely

  
Vjay Rathore

Technical & Head of Technical Team  
Bonasys IT Solutions Private Limited

Intern Signature

*Siddhant Jain*

**Head Office:-** 314-A, Bharat Bhavan, 1360, Shukrawar Peth, Pune-411002.

**Mobile:** +919753349215 **Email:** contact@bonasysit.in **Web:** www.bonasysit.in

# CERTIFICATE OF INTERNSHIP



## Certificate OF INTERNSHIP

This Certificate is Proudly Presented to

**SIDDHANT JAIN**

HAS SUCCESSFULLY COMPLETED AN INTERNSHIP AS  
**FULL STACK WEB DEVELOPMENT INTERN**

20-JAN-2025 TO 19-MAY-2025

We appreciate your Hard Work & Contributions.  
WE WISH YOU ALL THE BEST FOR YOUR FUTURE ENDEAVOURS

19-MAY-2025

  
DIRECTOR SIGN

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## REFERENCES

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1. React Official Documentation – <https://reactjs.org>
2. Node.js Official Website – <https://nodejs.org>
3. Express.js Documentation – <https://expressjs.com>
4. MongoDB Documentation – <https://www.mongodb.com>
5. GitHub – <https://github.com>
6. Discussions and training sessions with Mr. Vijay Rathore, Head of Technical Team, Bonasys IT Solutions Pvt. Ltd.
7. Course material and guidance provided by Prof. Mona Pandey Sharma, MITS Gwalior.

# TURNITIN PLAGIARISM REPORT

**SIDDHANT JAIN**  
Full Stack Web Developer Intern

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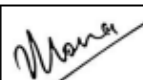
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## MPR 1


### MONTHLY REPORT OF PROGRESS (MRP) FROM INDUSTRY MENTOR


Name of student	Siddhant Jain	Department	CSE		
Industry/Organization	Bonasys IT Solutions Private Limited	Date/Duration	20/01/2025 -12/02/2025		
<b>Criterion</b>	<b>Poor</b>	<b>Average</b>	<b>Good</b>	<b>Very Good</b>	<b>Excellent</b>
Punctuality/Timely completion of assigned work					Excellent
Learning capacity/Knowledge upgradation					Excellent
Performance/Quality of work				Very Good	
Behaviour/Discipline/Team work					Excellent
Sincerity/Hard work					Excellent
Comment on nature of work done/Area/Topic	This month, Siddhant demonstrated exceptional dedication to his work, consistently contributing to the success of the team. His proactive approach and willingness to take on new challenges helped to streamline project tasks and improve team productivity. His positive attitude and strong communication skills played a key role in creating a collaborative atmosphere.				
<b><u>OVERALL GRADE (Any one)</u></b>	<b><u>EXCELLENT</u></b>				
<b><u>Name of Industry Mentor</u></b>	Vijay Rathore , Head of Technical Team				
<b><u>Signature of Industry Mentor</u></b>					

<b>Receiving Date</b>	12-02-2025	<b>Name of Faculty Mentor</b>	Prof. Mona Pandey Sharma	<b>Sign</b>	
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MPR 2


**MONTHLY REPORT OF PROGRESS (MRP) FROM INDUSTRY MENTOR**

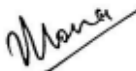
Name of student	Siddhant Jain		Department	CSE	
Industry/Organization	Bonasys IT Solutions Private Limited		Date/Duration	12/02/2025 -12/03/2025	
<b>Criterion</b>	<b>Poor</b>	<b>Average</b>	<b>Good</b>	<b>Very Good</b>	<b>Excellent</b>
Punctuality/Timely completion of assigned work					Excellent
Learning capacity/Knowledge upgradation					Excellent
Performance/Quality of work					Excellent
Behaviour/Discipline/Team work					Excellent
Sincerity/Hard work					Excellent
Comment on nature of work done/Area/Topic	This month, Siddhant worked on various aspects of full-stack web development. He contributed to both the front-end and back-end of projects, helping to create user-friendly interfaces and improve the functionality of the applications. Siddhant took on new challenges, collaborated effectively with the team, and showed great initiative in completing tasks. His positive attitude and willingness to learn have made a valuable impact on the team's progress.				
<b><u>OVERALL GRADE (Any one)</u></b>	<b><u>EXCELLENT</u></b>				
<b><u>Name of Industry Mentor</u></b>	Vijay Rathore , Head of Technical Team				
<b><u>Signature of Industry Mentor</u></b>					

<b>Receiving Date</b>	13-03-2025	<b>Name of Faculty Mentor</b>	Prof. Mona Pandey Sharma	<b>Sign</b>	
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## MPR 3


### MONTHLY REPORT OF PROGRESS (MRP) FROM INDUSTRY MENTOR


Name of student	Siddhant Jain		Department	CSE	
Industry/Organization	Bonasys IT Solutions Private Limited		Date/Duration	15/03/2025 -12/04/2025	
<b>Criterion</b>	<b>Poor</b>	<b>Average</b>	<b>Good</b>	<b>Very Good</b>	<b>Excellent</b>
Punctuality/Timely completion of assigned work					Excellent
Learning capacity/Knowledge upgradation					Excellent
Performance/Quality of work					Excellent
Behaviour/Discipline/Team work					Excellent
Sincerity/Hard work					Excellent
Comment on nature of work done/Area/Topic	This month, Siddhant continued to make significant progress in full-stack web development. He deepened his understanding of modern frameworks and tools, contributing to the development and optimization of key features in ongoing projects. Siddhant took the initiative to debug and resolve complex issues, showcasing strong problem-solving skills and attention to detail. His ability to work independently while maintaining team collaboration has been commendable. Overall, Siddhant's consistent efforts and growing technical expertise have made a meaningful contribution to the team's objectives.				
<b><u>OVERALL GRADE (Any one)</u></b>	<b><u>EXCELLENT</u></b>				
<b><u>Name of Industry Mentor</u></b>	Vijay Rathore , Head of Technical Team				
<b><u>Signature of Industry Mentor</u></b>					

<b>Receiving Date</b>	13-04-2025	<b>Name of Faculty Mentor</b>	Prof. Mona Pandey Sharma	<b>Sign</b>	
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## MPR 4

### MONTHLY REPORT OF PROGRESS (MRP) FROM INDUSTRY MENTOR

Name of student	Siddhant Jain		Department	CSE	
Industry/Organization	Bonasys IT Solutions Private Limited		Date/Duration	12/04/2025 -12/05/2025	
<b>Criterion</b>	<b>Poor</b>	<b>Average</b>	<b>Good</b>	<b>Very Good</b>	<b>Excellent</b>
Punctuality/Timely completion of assigned work					Excellent
Learning capacity/Knowledge upgradation					Excellent
Performance/Quality of work					Excellent
Behaviour/Discipline/Team work					Excellent
Sincerity/Hard work					Excellent
Comment on nature of work done/Area/Topic	Siddhant Jain has shown a sincere and dedicated approach throughout his internship period. He successfully handled tasks related to full stack development using the MERN stack and completed his assignments on time. His willingness to learn, problem-solving ability, and consistency made him a valuable contributor to the team.				
<b><u>OVERALL GRADE (Any one)</u></b>	<b><u>EXCELLENT</u></b>				
<b><u>Name of Industry Mentor</u></b>	Vijay Rathore , Head of Technical Team				
<b><u>Signature of Industry Mentor</u></b>					

<b>Receiving Date</b>	13-05-2025	<b>Name of Faculty Mentor</b>	Prof. Mona Pandey Sharma	<b>Sign</b>	
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