

Internship at Curer

Internship Report

Submitted for the partial fulfillment of the degree of

Bachelor of Technology

In

Computer Science & Engineering

Submitted By

CHHABRA TEENA DINESH

0901CD211019

UNDER THE SUPERVISION AND GUIDANCE OF

Dr. Gagandeep Kaur

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

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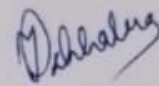
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January-May 2025

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I hereby declare that the work entitled **Internship at Curer** is my work, conducted under the supervision of **Mr. Aakash Mittal, Technical head**, 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.



Chhabra Teena Dinesh

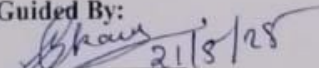
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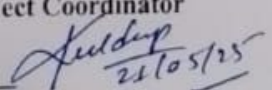
This is to certify that the above statement made by the candidates is correct to the best of my knowledge and belief.

Guided By:



Dr. Gagandeep Kaur
Assistant Professor

Department of Computer Science & Engineering
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Departmental Project Coordinator


Dr. Kuldeep Narayan Tripathi
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Department of Computer
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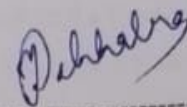

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Prof. Mahesh Parmar
Assistant Professor

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ABSTRACT

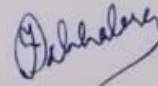
This internship at Curer, spanning from 15th December 2024 to 30th April 2025, offered me a comprehensive opportunity to apply and expand my software development skills in the fast-evolving HealthTech sector. The goal was to contribute to building scalable, user-friendly features across Curer's ecosystem, which includes the patient, doctor, and paramedic applications, ultimately enhancing the digital healthcare experience.

Throughout the internship, I worked on multiple impactful modules such as the Health Diary, Roster Calendar, Unread & Unanswered Chat Tracking, Payment Reminder System, and Uploaded By feature. These features were developed using Flutter for the frontend and Cloud Functions (in TypeScript) for backend logic. I collaborated closely with operations and backend teams to identify bugs, support weekly releases, and ensure version upgrades from v1 to v2 of Cloud Functions.

The internship bridged the gap between academic theory and real-world problem-solving, providing me hands-on experience in full-cycle development, UI/UX enhancement, and scalable architecture in a production-grade environment. It deepened my understanding of healthcare workflows, strengthened my debugging and design thinking abilities, and gave me the satisfaction of contributing to a platform that positively impacts real lives.

ACKNOWLEDGEMENT

The full semester project 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 project as a curriculum requirement, under the provisions of the Flexible Curriculum Scheme, approved by the Academic Council of the institute. 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 project**. I humbly thank **Dr. Manish Dixit**, Professor and friend, 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 **Dr. Gagandeep Kaur**, Assistant Professor, Computer Science, for his continued support and guidance throughout the project. I am also very thankful to the faculty and staff of the department.



Chhabra Teena Dinesh

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CERTIFICATE



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Internship Certificate

Date 05.05.2025

This is certify that **Teena Chabra** has successfully completed an internship at Curer as a software developer from **15th Dec 2024 to 30th April 2025**. During her time with us, Teena worked diligently in developing new features for the curer app, contributing to our goal of delivering innovative health care solutions.

Teena displayed strong technical skills, creativity, and commitment to quality in her work, her efforts has positively impacted the user experience of our platform, and she has proven himself to be valuable team member.

We appreciate Teena's dedication and contributions during her internship and with her success in all her future endeavours.

Best Regards,



Dr. Akshay Bansal
Cofounder & CEO
Curer

CONTENT

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CHAPTER 1: INTRODUCTION

The internship program is a vital part of academic learning that bridges the gap between theoretical knowledge and real-world applications. As a final-year B.Tech student in Computer Science and Design, I had the opportunity to intern as a Software Development Intern at Curer, a Delhi-based health-tech startup, from December 15, 2024, to April 30, 2025.

Curer is focused on building digital solutions for improving healthcare experiences through its suite of mobile applications tailored for patients, doctors, and paramedics. During my internship, I was actively involved in feature development, backend integration, UI/UX improvements, cloud function upgrades, and collaborating with cross-functional teams to release production-ready modules.

This report outlines my progress, technical contributions, and the social impact of the work done, showcasing how I applied my classroom knowledge to solve meaningful problems in the healthcare space.

CHAPTER 2: LITERATURE SURVEY

In today's digital healthcare ecosystem, the need for scalable and reliable mobile platforms is more critical than ever. HealthTech startups like Curer are reshaping how healthcare is delivered, especially by offering mobile-first solutions that bridge the gap between patients, doctors, and paramedics. My internship at Curer involved working on multiple modules of these apps, requiring a good understanding of current technologies, industry trends, and user-centric design principles.

Flutter for Cross-Platform Health Applications

Flutter, developed by Google, has become a go-to framework for building natively compiled mobile applications from a single codebase. Its widget-based architecture allows developers to build expressive and fast UIs that behave consistently across both Android and iOS platforms. Throughout the internship, Flutter was the primary technology used for developing patient-facing features such as Health Diaries, Payment Reminders, Medicine Notifications, and Chat Interfaces. The framework also enabled consistent UI updates across the Doctor and Paramedic apps.

Cloud Functions Using TypeScript

To handle real-time updates and background processing, Firebase Cloud Functions were employed extensively. These serverless functions allowed for backend logic to be executed in response to events such as database writes, user actions, or scheduled triggers. The backend logic was written in TypeScript, offering strong typing, better tooling, and cleaner error handling during development. TypeScript-based functions were used for building core features like the Notification Engine, Unread/Unanswered Chat Tracking, and Automated Reminders—all crucial for delivering seamless and real-time user experiences.

Real-Time Features and Backend Integration

Healthcare apps benefit immensely from features that offer real-time feedback and interaction. Features like read/unread chat status, unanswered message identification, and upload visibility tracking were developed to ensure transparent communication between users and medical professionals. These were supported by robust Firestore data structures and reactive UI updates in Flutter.

Calendar and Scheduling Functionality

The inclusion of Roster Calendar functionality in the doctor app—similar to calendar views in native Android apps—was a step towards digitizing schedule management. It allowed doctors to view and manage their appointments weekly or monthly, making the platform not just a communication tool but a productivity assistant.

CHAPTER 3: WORK DONE

Throughout the internship, I was directly involved in the end-to-end development and enhancement of critical features across the Curer ecosystem, which includes the Patient, Doctor, and Paramedic mobile applications. The experience provided me with a rich exposure to full-stack development—primarily using Flutter for frontend and TypeScript based Cloud Functions for the backend. My tasks spanned requirement analysis, design implementation, collaboration with cross-functional teams, and contribution to live releases. Below is a breakdown of the significant tasks accomplished:

The significant tasks accomplished within this timeframe are presented below:

Project Planning and Requirement Analysis:

- Understood the product vision and technical architecture of the Curer app suite.
- Participated in sprint planning and discussions with product managers, designers, and developers.
- Analyzed user pain points reported by the operations team and converted them into actionable development tasks.

Frontend Development (Flutter):

Worked on the mobile user interface for multiple modules:

- Health Diary Module: Enabled patients to upload and view prescriptions, discharge summaries, OPD/IPD files.
- Medicine Reminder UI: Designed schedule cards and reminder toggles in the Paramedic App.
- Payment Reminder Screen: Listed completed and pending payments, categorized by doctor/physiotherapy.
- Roster Calendar: Created weekly/monthly appointment views in the Doctor App, similar to Android calendar interfaces.
- Unread & Unanswered Messages: Built badges and chat tags to show unread and unanswered messages like WhatsApp.

Backend Development (Cloud Functions in TypeScript):

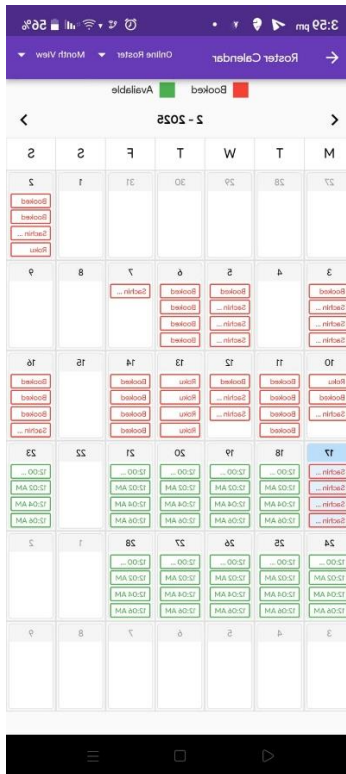
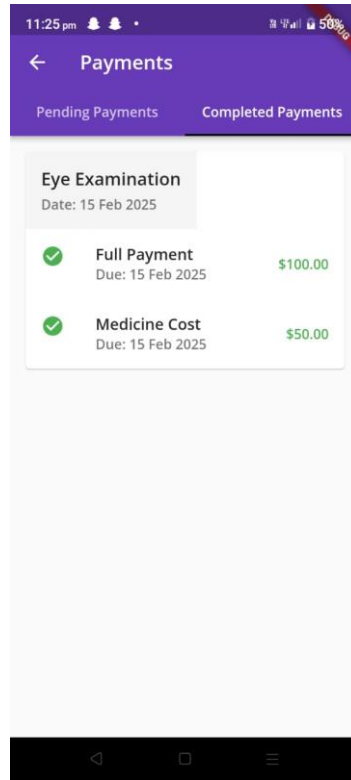
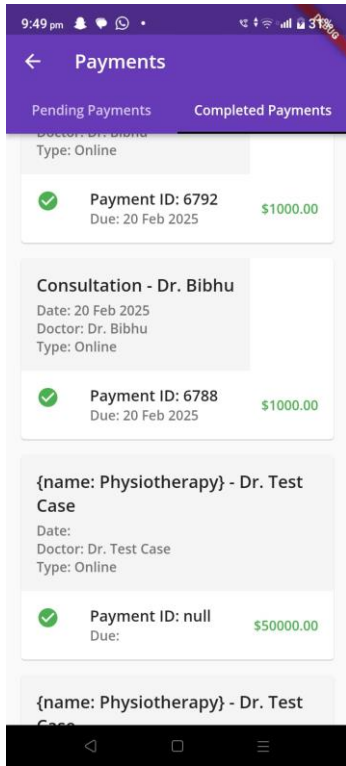
- Designed and implemented HTTPS Cloud Functions for sending and storing in-app notifications.
- Migrated existing logic from Cloud Functions v1 to v2, improving performance and maintainability.
- Integrated backend APIs to support chat count updates (read, unread, unanswered) and medicine scheduling.
- Built backend support for filtering appointments by type (online/offline) and document categorization.

Collaboration and Testing:

- Coordinated with QA engineers to conduct end-to-end testing of new features before each release cycle.
- Addressed production issues reported by the support team and implemented critical bug fixes.
- Participated in regular sync-ups with backend and design teams to finalize and deploy releases smoothly.

Deployment and Release Management:

- Contributed to weekly production releases, ensuring that all developed features passed testing pipelines.
- Created internal documentation for new features and wrote release notes for operations and QA teams.
- Ensured real-time sync between feature development and user impact through internal tracking tools.





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Home My Chats

Dr. Tarun

Dashboard

Unanswered Chats 67 Today

Total Appointments 3 Today

Pending Case History 1 Today

Patients List

+ New Offline Appointment

Upcoming Appointments

Gautam
Offline appointment
Today @ 05:09 PM
New Case Join Now

Dashboard

Cure AI

TODAY

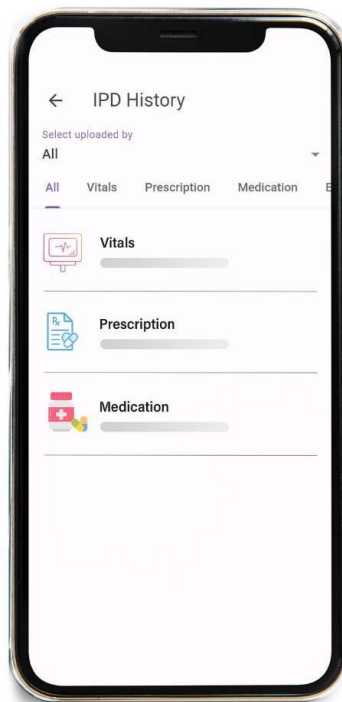
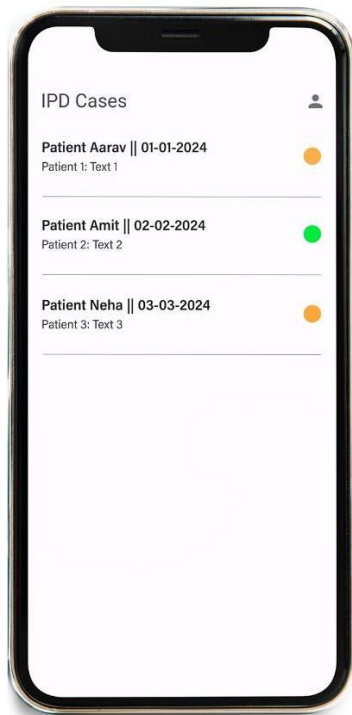
Hi there!
Welcome to Cure AI, your virtual healthcare assistant.

How can I assist you today? 17:07

Hi! I'm looking for a specialist in cardiology. Can you help me find one? 17:09 ✓

Absolutely! I can help with that. Would you like an online consultation or in hospital consultation? 17:12

Type a message



CHAPTER 4: OUTCOMES GAINED

The internship at **Curer** provided an enriching experience that allowed me to translate academic knowledge into real-world problem-solving within the healthcare domain. Working on high-impact features across multiple applications helped me gain hands-on experience in mobile app development, cloud infrastructure, and collaborative software engineering. These contributions not only strengthened my technical skill set but also nurtured my ability to work in a fast-paced, product-focused environment.

Technical Outcomes:

- Gained proficiency in Flutter to build scalable and responsive mobile interfaces across three healthcare apps (Patient, Doctor, Paramedic).
- Implemented complex backend logic using TypeScript-based Cloud Functions, including in-app notifications, unread message tracking, and data uploads.
- Migrated critical cloud services from Cloud Functions v1 to v2, improving reliability and maintainability.
- Developed healthcare-specific modules like Health Diary, Medicine Reminders, Payment Tracking, and Roster Calendar with real-world use cases.
- Strengthened debugging, testing, and feature release management using tools like Firebase Console, Postman, and emulator logs.

Professional & Learning Outcomes:

- Improved the ability to translate product requirements into technical features through sprint planning and iterative collaboration.
- Enhanced communication skills by regularly coordinating with backend developers, designers, and the operations team.
- Learned to prioritize bug fixes and quick turnaround patches while maintaining code quality and readability.
- Developed a deeper understanding of healthcare workflows, patient engagement features, and mobile-first design principles tailored for the Indian healthcare landscape.

CHAPTER 5: SKILLS GAINED

Technical Skills Acquired:

- Built and optimized UI screens, handled state management, and integrated real-time data.
- Utilized Firestore for database management, Firebase Authentication, and Firebase Storage for file uploads.
- Created and maintained serverless backend functions to manage notifications, unread message tracking, payment logic, and more.
- Used Git for code versioning and collaboration within a multi-developer team.
- Identified and fixed bugs in production using tools like emulator logs, Firebase console, and manual testing.

Soft Skills Acquired:

- **Team Collaboration:** Worked closely with designers, backend developers, and the operations team to ensure smooth releases.
- **Time Management:** Met strict deadlines and balanced multiple tasks simultaneously during release weeks.
- **Problem-Solving:** Resolved real-time bugs, optimized workflows, and contributed to decision-making in feature improvements.
- **Communication:** Maintained clear documentation and regularly updated mentors and team members on progress and issues.
- **Adaptability:** Quickly learned and applied new tools and frameworks as per the evolving project requirements.

CHAPTER 6: SOCIAL RELEVANCE

This project holds valuable relevance beyond technical learning. By contributing to the digital healthcare platform at Curer, the work done directly impacted patient engagement, medical communication, and care accessibility. The features developed and improved during the internship aimed to simplify and digitize everyday healthcare workflows for doctors, patients, and paramedics.

- **Empowering Patients:** Features like the Health Diary, payment reminders, and medicine alerts help patients stay informed, organized, and proactive about their health, especially those managing chronic conditions or long-term treatment.
- **Enhanced Doctor Support:** Tools such as the roster calendar, chat categorization (unanswered/read), and uploaded by indicator streamline a doctor's workflow, saving time and ensuring they respond to the right queries and follow up on critical cases.
- **Bridging Gaps in Healthcare Access:** Through online GP consultations, organized health records, and digital tracking of prescriptions, patients from remote areas or with limited mobility can still maintain consistent communication with healthcare providers.
- **Strengthening the Indian Healthcare Ecosystem:** By working on apps used across various stakeholders (patients, doctors, paramedics), this internship supported a scalable, tech-enabled solution aligned with Digital India goals and the evolving needs of a modern healthcare infrastructure.
- **Personal Impact:** The internship offered me the opportunity to contribute to meaningful technology that improves people's lives. It deepened my understanding of healthcare challenges and gave me a sense of purpose in using technology for social good.

CHAPTER 7: CONCLUSION

My internship at Curer has been an enriching and transformative experience that not only enhanced my technical proficiency but also deepened my understanding of the real-world impact of HealthTech solutions. Throughout the internship, I had the opportunity to work on live projects that involved developing user-centric features, solving production-level bugs, and contributing to end-to-end releases across patient, doctor, and paramedic applications.

From building modules like the Health Diary, Roster Calendar, and Payment Reminders, to working on critical backend logic through Cloud Functions, this journey allowed me to apply theoretical knowledge to practical scenarios. It also strengthened my collaborative and problem-solving abilities by working closely with cross-functional teams in a fast-paced environment.

Overall, this internship has provided me with a strong foundation for my future career in software development. It has affirmed my interest in creating scalable digital solutions that drive positive social impact—especially in essential fields like healthcare. I look forward to carrying these learnings and experiences forward as I continue to grow as a developer and contribute meaningfully to the tech ecosystem.

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Department of Computer Science and Engineering
 (Session: Jan–June 2025)

MONTHLY REPORT OF PROGRESS (MRP) FROM INDUSTRY MENTOR

Name of student	Chhabra Teena Dinesh		Department	Computer Science and Engineering	
Industry/Organization	Curer(Maven Lifecare Technologies Pvt. Ltd)		Date/Duration	13/01/2025 -13/02/2025	
Criterion	Poor	Average	Good	Very Good	Excellent
Punctuality/Timely completion of assigned work					✓
Learning capacity/Knowledge upgradation					✓
Performance/Quality of work				✓	
Behaviour/Discipline/Team work					✓
Sincerity/Hard work					✓
Comment on nature of work done/Area/Topic	Teena worked on developing new features like the Roster Calendar, along with fixing various bugs and improving overall system performance. She actively contributed to enhancing functionality and ensuring a smoother user experience.				
<u>OVERALL GRADE (Any one)</u>	<u>POOR/AVERAGE/GOOD/VERY GOOD/EXCELLENT</u> ✓				
<u>Name of Industry Mentor</u>	Aakash Mittal				
<u>Signature of Industry Mentor</u>					

Receiving Date	13/02/2025	Name of Faculty Mentor	Dr. Gagandeep Kaur	Sign	
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FEB-MARCH



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Department of Computer Science and Engineering
(Session: Jan–June 2025)

MONTHLY REPORT OF PROGRESS (MRP)-2

FROM INDUSTRY MENTOR

Name of student	Chhabra Teena Dinesh	Department	Computer Science and Engineering		
Industry/Organization	Curer(Maven Lifecare Technologies Pvt. Ltd)	Date/Duration	12/02/2025 -12/03/2025		
Criterion	Poor	Average	Good	Very Good	Excellent
Punctuality/Timely completion of assigned work					✓
Learning capacity/Knowledge upgradation					✓
Performance/Quality of work				✓	
Behaviour/Discipline/Team work					✓
Sincerity/Hard work					✓
Comment on nature of work done/Area/Topic	Teena have done a work of showing tiles of pending payments and completed payments along with many bugs in production. She actively contributed to enhancing functionality and ensuring a smoother user experience.				
<u>OVERALL GRADE (Any one)</u>	<u>POOR/AVERAGE/GOOD/VERY GOOD/EXCELLENT</u> ✓				
<u>Name of Industry Mentor</u>	Aakash Mittal				
<u>Signature of Industry Mentor</u>					

Receiving Date	12/03/2025	Name of Faculty Mentor	Dr. Gagandeep Kaur	Sign	
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Department of Computer Science and Engineering
 (Session: Jan–June 2025)

MONTHLY REPORT OF PROGRESS (MRP)-3

FROM INDUSTRY MENTOR

Name of student	Chhabra Teena Dinesh		Department	Computer Science and Engineering	
Industry/Organization	Curer(Maven Lifecare Technologies Pvt. Ltd)		Date/Duration	15/03/2025 -12/04/2025	
Criterion	Poor	Average	Good	Very Good	Excellent
Punctuality/Timely completion of assigned work					✓
Learning capacity/Knowledge upgradation					✓
Performance/Quality of work				✓	
Behaviour/Discipline/Team work					✓
Sincerity/Hard work					✓
Comment on nature of work done/Area/Topic	This Month Teena solved various bugs and enhanced user activities on the app and added some user friendly features to enhance productivity and collaborated with the team in maintaining the Deliverables on time.				
<u>OVERALL GRADE (Any one)</u>	<u>POOR/AVERAGE/GOOD/VERY GOOD/EXCELLENT</u> ✓				
<u>Name of Industry Mentor</u>	Aakash Mittal				
<u>Signature of Industry Mentor</u>					

Receiving Date	12/04/2025	Name of Faculty Mentor	Dr. Gagandeep Kaur	Sign	
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