

SUMMER INTERNSHIP REPORT · MAY-JULY 2025

# Internship Report

Web Development Intern at Northwind Software Labs

SUBMITTED BY

Rahul Verma  
Roll No. 22CS118

ORGANISATION

Northwind Software Labs,  
Bengaluru

FACULTY MENTOR

Dr. Shalini Rao

# INTERNSHIP CERTIFICATE

This is to certify that Rahul Verma, a student of Bachelor Of Technology (Computer Science & Engineering) at Your Institute of Technology, Bhopal, has successfully completed an internship with Northwind Software Labs, Bengaluru, as Web Development Intern from 2 June 2025 to 25 July 2025.

During the internship the student worked with our Product Engineering team and contributed to appointment booking screens. We found the student sincere, punctual and eager to learn, and we wish them every success.

(Replace this page with the certificate issued by your organisation, if one was provided.)

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**Mr. Karthik Iyer**

Senior Software Engineer, Northwind Software  
Labs

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**HR Department**

Northwind Software Labs

# Declaration

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I hereby declare that this internship report, submitted to the Department of Computer Science & Engineering, Your Institute of Technology, Bhopal, is a record of the work I carried out at Northwind Software Labs from 2 June 2025 to 25 July 2025 under the supervision of Mr. Karthik Iyer and the guidance of Dr. Shalini Rao. The report has not been submitted elsewhere for any degree or diploma.

Place: \_\_\_\_\_ Date: \_\_\_\_\_

**Rahul Verma**

# Acknowledgement

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I am grateful to Northwind Software Labs for giving me the opportunity to work as Web Development Intern and to experience a professional environment first-hand.

I sincerely thank my industry mentor, Mr. Karthik Iyer, for patient guidance, regular feedback and for trusting me with real work. I also thank the members of the Product Engineering team, who welcomed me and answered my questions.

I am thankful to Dr. Shalini Rao, my faculty mentor, and to the Head of the Department of Computer Science & Engineering for their support and encouragement.

Finally, I thank my family and friends for their constant motivation.

# Executive Summary

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This report describes my 8-week internship at Northwind Software Labs, a software company that builds web and mobile products for small and medium businesses. During the internship I worked as Web Development Intern in the Product Engineering team. I contributed to a customer-facing appointment booking web app, learning React, REST APIs, Git workflows and agile ceremonies. I built two features end to end, wrote unit tests and fixed reported bugs.

|                        |                                            |
|------------------------|--------------------------------------------|
| <b>Organisation</b>    | Northwind Software Labs, Bengaluru         |
| <b>Domain</b>          | Software products and services             |
| <b>Role</b>            | Web Development Intern                     |
| <b>Department</b>      | Product Engineering                        |
| <b>Duration</b>        | 2 June 2025 – 25 July 2025 (8 weeks)       |
| <b>Industry mentor</b> | Mr. Karthik Iyer, Senior Software Engineer |
| <b>Tools used</b>      | React, Node.js, Git, Jira, Figma           |

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# 1. Company Profile

## About the Organisation

Northwind Software Labs is a mid-sized software company that designs, builds and maintains web and mobile applications for small and medium businesses in retail, education and healthcare. The company follows agile practices, with small cross-functional teams working in two-week sprints. It has a strong culture of code reviews, automated testing and documentation.

## Vision and Mission

### Vision

To make well-crafted software affordable for every growing business.

### Mission

To deliver reliable products quickly by combining good engineering practice with close collaboration with clients.

## Products and Services

- Custom web application development
- Mobile apps for Android and iOS
- Cloud hosting and maintenance
- UI/UX design and product consulting

## Organisational Structure

The organisation is structured into functional teams, each led by a manager who reports to the leadership team. Interns are attached to one team and assigned an industry mentor.

| Department          | Main responsibilities                          |
|---------------------|------------------------------------------------|
| Product Engineering | Designs and builds web and mobile applications |
| Quality Assurance   | Plans tests and automates regression testing   |
| Design              | User research, wireframes and visual design    |
| DevOps              | Deployment pipelines, hosting and monitoring   |
| Client Success      | Requirements, delivery and support             |

## 2. Internship Overview

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### Objectives of the Internship

1. Understand how a professional software team plans and delivers work.
2. Gain hands-on experience with a modern front-end framework and REST APIs.
3. Learn version control, code review and testing practices.
4. Build at least one production feature from design to deployment.

### Role and Responsibilities

- Implementing user interface components from design mock-ups
- Integrating front-end screens with back-end APIs
- Writing unit tests and fixing bugs
- Participating in daily stand-ups and sprint reviews

### Tools and Technologies

| Tool / technology     | How it was used                         |
|-----------------------|-----------------------------------------|
| React                 | Building reusable UI components         |
| Node.js / Express     | Understanding and testing API endpoints |
| Git and pull requests | Version control and code reviews        |
| Jira                  | Tracking tasks in sprints               |
| Figma                 | Reading design specifications           |

## 3. Weekly Work Log

The table below summarises the work done in each week of the internship.

| Week | Dates        | Tasks performed                                        | Key learning                                               |
|------|--------------|--------------------------------------------------------|------------------------------------------------------------|
| 1    | 2–6 Jun      | Onboarding, environment set-up, codebase walkthrough   | How the project is structured and how branches are managed |
| 2    | 9–13 Jun     | React refresher; built a sample component library page | Component props, state and hooks                           |
| 3    | 16–20 Jun    | Implemented the appointment list screen                | Fetching and displaying API data with loading states       |
| 4    | 23–27 Jun    | Added filters and search to the list                   | Debouncing input and handling empty results                |
| 5    | 30 Jun–4 Jul | Built the booking form with validation                 | Form validation and accessible error messages              |
| 6    | 7–11 Jul     | Wrote unit tests and fixed review comments             | Testing components and writing readable code               |
| 7    | 14–18 Jul    | Bug fixes from QA; performance tweaks                  | Reading bug reports and reproducing issues                 |
| 8    | 21–25 Jul    | Documentation, demo to the team, handover              | Presenting work and writing handover notes                 |

## 4. Projects Undertaken

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### Project 1: Appointment booking screens

**Problem:** Clinic staff needed a faster way to view and filter appointments.

**Approach:** Built list, filter and booking components in React connected to existing APIs, following the design system.

**Outcome:** Feature released to staging and approved in the sprint review.

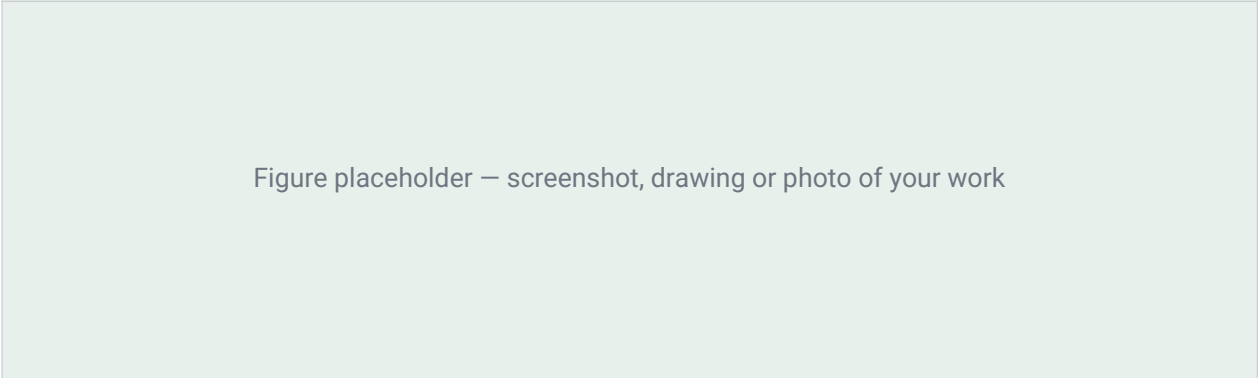


Figure placeholder — screenshot, drawing or photo of your work

*Figure 1: Appointment booking screens*

### Project 2: Unit test coverage

**Problem:** Several older components had no tests.

**Approach:** Wrote tests for six components and added them to the CI pipeline.

**Outcome:** Test coverage for the module improved and two hidden bugs were found.

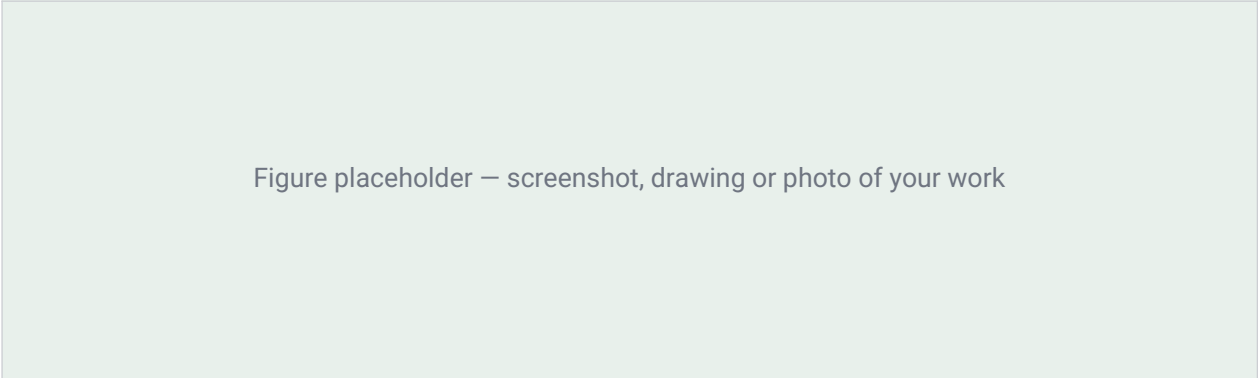


Figure placeholder — screenshot, drawing or photo of your work

*Figure 2: Unit test coverage*

## 5. Skills and Learning Outcomes

| Skill area   | What I learned                                                         |
|--------------|------------------------------------------------------------------------|
| Technical    | React components, hooks, REST integration, Git workflows, unit testing |
| Process      | Agile sprints, stand-ups, code reviews, estimating tasks               |
| Professional | Asking clear questions, writing updates, presenting a demo             |

### Challenges Faced

- Understanding a large existing codebase in the first two weeks
- Estimating how long tasks would take
- Handling review comments without getting discouraged

## 6. Conclusion

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The internship gave me practical experience of building software in a real team. I learned not only new tools but also how to communicate progress, accept feedback and take ownership of a feature. These lessons will shape my final-year project and my career choices.

### **Suggestions for future interns**

Set up the development environment before day one if possible, keep a daily log, and ask questions early rather than staying stuck for hours.

## 7. Appendix: Attendance and Evaluation

| Week | Days present | Mentor remarks | Mentor sign |
|------|--------------|----------------|-------------|
| 1    | 5 / 5        |                |             |
| 2    | 5 / 5        |                |             |
| 3    | 5 / 5        |                |             |
| 4    | 5 / 5        |                |             |
| 5    | 5 / 5        |                |             |
| 6    | 5 / 5        |                |             |
| 7    | 5 / 5        |                |             |
| 8    | 5 / 5        |                |             |

### Mentor evaluation (to be filled by the organisation)

| Criterion        | Excellent | Good | Average | Needs work |
|------------------|-----------|------|---------|------------|
| Technical skills |           |      |         |            |
| Communication    |           |      |         |            |
| Punctuality      |           |      |         |            |
| Teamwork         |           |      |         |            |
| Initiative       |           |      |         |            |