

INTERNSHIP SYNOPSIS

At Emerging Climate Innovation Pvt Ltd

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- **Title:** Internship Synopsis
 - **Name:** Tanmay Kumar Agarwal
 - **Internship Organization:** Emerging Climate Innovation Pvt Ltd
 - **Duration:** February 1, 2025 – May 31, 2025
 - **Role:** Full Stack Developer
 - **Mentor:** Mridul Agarwal
 - **Submitted to:** Dr Rekha Jain
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2. Acknowledgment

I am grateful to **Emerging Climate Innovation Pvt Ltd** for giving me the opportunity to intern as a **Full Stack Developer**. I would like to sincerely thank my mentor, **Mridul Agarwal**, for his constant guidance and support throughout the internship. His valuable insights and feedback helped me improve my technical skills and problem-solving abilities. I also appreciate my colleagues for their cooperation and encouragement, making this learning experience enjoyable and productive.

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4. Introduction

Internships play a crucial role in bridging the gap between academic learning and real-world industry experience. This internship at **Emerging Climate Innovation Pvt Ltd** was an integral part of my professional development, allowing me to apply theoretical knowledge in a practical work environment.

Objective of the Internship:

The primary objective of this internship was to gain hands-on experience in **Full Stack Development** using **React.js** and **Node.js** while contributing to the organization's web-based projects. My role as a **Full Stack Developer** involved working on both front-end and back-end development, enabling me to build robust and scalable web applications.

5. Company Profile

- **Company Name:** Emerging Climate Innovation Pvt Ltd
 - **Industry:** Technology & Climate Innovation
 - **Location:** Bhamasha Techno Hub , Jaipur
 - **Vision & Mission:** Driving innovation to create sustainable technology solutions for E-waste.
 - **Key Services:** Web-based applications, cloud solutions, and sustainability-driven technology.
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6. Internship Details

Role & Responsibilities:

- Developed and optimized **front-end applications** using **React.js**.
- Built and maintained **back-end APIs** using **Node.js** and **Express.js**.
- Integrated **databases** for efficient data management.

- Collaborated with UX designers to enhance user experience.
- Worked with **GitHub** for version control and **Agile methodologies** for project management.

Projects/Assignments:

- Developed a **dashboard for dealing with E-Waste**.
- Created a **real-time notification system** for Users.
- Built a **RESTful API** for data retrieval and processing.

Tools & Technologies Used:

- **Front-end:** React.js, Redux, Tailwind CSS
 - **Back-end:** Node.js, Express.js
 - **Database:** MongoDB / PostgreSQL
 - **Version Control:** Git, GitHub
 - **Other Tools:** Figma
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7. Key Learnings & Skills Acquired

- Gained hands-on experience in **React.js and Node.js development**.
 - Improved understanding of **API development and integration**.
 - Strengthened skills in **database management and cloud deployment**.
 - Enhanced problem-solving and **debugging abilities**.
 - Learned best practices in **code optimization and scalability**.
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8. Challenges Faced & Overcoming Strategies

Challenges:

- Understanding **complex application architecture**.
- Optimizing **API response times** for better performance.
- Managing **state efficiently** in large-scale applications.

Solutions:

- Studied industry best practices and **referenced documentation**.

- Implemented **caching mechanisms** and optimized database queries.
 - Used **Redux and Context API** for better state management.
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9. Conclusion & Recommendations

The internship at **Emerging Climate Innovation Pvt Ltd** was a valuable experience that enhanced my technical and professional skills. It provided a deeper understanding of **full-stack development** in a real-world scenario.