Internship Report

**stack overflow like project**

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Internship Period: 21 June 2025 –21 July 2025

Organization: NullClass

**1. Introduction**

This internship report presents an overview of the internship project conducted under the guidance of NullClass. The internship aimed to build a full-stack web application with a focus on multi-step user authentication, language localization, and secure video upload functionality.

**2. Background**

NullClass offered a real-world web development internship project that simulates client-driven requirements in authentication, internationalization (i18n), video handling, and modern UI practices. The project was intended to enhance both frontend and backend development skills using modern JavaScript frameworks and tools.

**3. Learning Objectives**

- Understand and implement secure user authentication (Google, Phone, and Email OTP).

- Integrate i18n for multi-language support (Hindi, Spanish, Portuguese, Chinese, French, English).

- Design time-restricted video upload modules with size and length constraints.

- Apply best practices for frontend UI development (without Tailwind).

- Work with MongoDB, Express, React, and Node.js in a coordinated system.

**4. Activities and Tasks**

- Created authentication modules using Firebase and custom backend (later switched to full backend auth without Firebase).

- Implemented OTP-based flows for login and language switching.

- Developed video upload functionality with 2PM–7PM time gating, 2 min / 50MB restrictions.

- Integrated i18next for complete app-wide translation.

- Built sequential page flow: Login → OTP → Language Selection → Upload → Completion.

**5. Skills and Competencies**

- Frontend: React.js, React Router, i18next, Form validation

- Backend: Node.js, Express.js, MongoDB, REST API

- Authentication: OTP via phone and email, Google Auth (UI placeholder)

- Storage: File upload validations and secure storage

- Deployment: Netlify (Frontend), Render (Backend)

**6. Feedback and Evidence**

The final output was a fully working web app, deployed online. Screenshots, video recordings, and hosted links were submitted for evaluation. Mentor feedback indicated solid improvement in backend control and frontend polish.

**7. Challenges and Solutions**

- Firebase integration issues → Replaced with custom backend OTP auth.

- Time-restricted upload logic → Handled using JavaScript Date and custom checks.

- Language not updating globally → Fixed by synchronizing i18next config after OTP.

- CORS/network issues on Render → Resolved using proper backend URL and headers in Axios.

**8. Outcomes and Impact**

Gained deep, practical understanding of full-stack development lifecycle. Improved problem-solving skills with real-world authentication issues. Learned to work under a stepwise module-based development structure with tight validations.

**9. Conclusion**

This internship project strengthened my grasp of user-centric web applications. It helped me integrate multiple technologies in a production-like environment and reinforced my confidence in independently handling both client and server-side development.

--THANK YOU