

Infosys Springboard Virtual Internship 6.0 Completion Report

Batch Number-04

Start date-Oct 13/2025

Names:

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Internship Duration: 8 Weeks

1. Project Title

CampusTrack Intelligent Lost and Found Locator

2. Project Objective

The objective of the CampusTrack – Intelligent Lost and Found Locator project is to provide a secure, campus-restricted digital platform that enables students and staff to report, search, and recover lost or found items efficiently. The system aims to minimize item loss on campus by offering structured listings, intelligent matching of lost and found items, secure user communication, and administrative moderation. By integrating automation and analytics, the platform enhances transparency, accountability, and recovery success rates within the campus ecosystem.

3. Project description in detail

CampusTrack is a comprehensive Lost and Found portal designed specifically for educational institutions. The platform allows authenticated campus users to post lost or found items, search existing listings, and connect securely with other users. Access to the system is restricted to verified campus members through email/domain validation and role-based authentication.

The backend is implemented using **Spring Boot (Java 21)** following RESTful and MVC principles, with **MySQL** as the database for managing users, items, matches, and reports. **JWT-based authentication** ensures secure session handling and role separation between Students and Admins.

The frontend is built using **React (Vite)** and styled with **Tailwind CSS**, providing a responsive and intuitive user experience. Users can submit detailed lost or found item forms, including item name, description, date, location, category, tags, and images for better identification.

An intelligent matching engine suggests potential matches by comparing keywords, item attributes, and reported locations. Location-based prioritization improves match accuracy across campus zones or buildings. The system also includes an Admin Dashboard that enables administrators to moderate content, manage users, review flagged posts, and analyze platform usage through reports and metrics.

Recent UI enhancements include an animated green-accent Admin Dashboard with branded animations, advanced user filters, and visually polished stat cards, improving both usability and aesthetics.

4. Timeline Overview

Week	Activities Planned	Activities Completed
Week 1	Setup project environment, implement authentication and campus verification.	Completed login and registration with Student/Admin roles using JWT and implemented email/domain-based campus verification.
Week 2	Design and develop Lost/Found item submission forms.	Implemented structured forms with item name, description, date, location, and image upload.

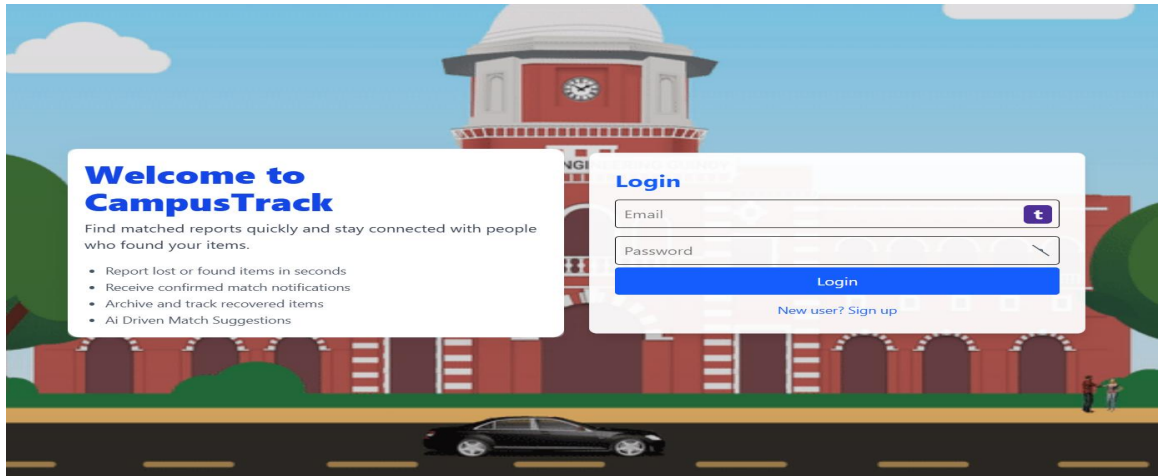
Week 3	Implement tags and categories for item organization.	Added tags (electronics, documents, clothing, etc.) and enabled category-based browsing.
Week 4	Develop matching algorithm using item attributes.	Implemented keyword similarity matching based on item name, color, and brand.
Week 5	Enhance matching with location-based suggestions.	Integrated proximity-based matching and filters using campus zones/buildings.
Week 6	Develop chat/contact system with privacy controls.	Enabled secure in-app messaging with masked personal details and reporting/blocking options.
Week 7	Build Admin Panel and content moderation features.	Implemented admin dashboard for approving, editing, deleting posts and reviewing flagged content.
Week 8	Implement reporting dashboard and analytics.	Generated reports on items reported, matched, recovered, and user engagement metrics.

5a. Key Milestones

Milestone	Description	Date Achieved
Project Kickoff	Initial planning, requirement analysis, and overview of the CampusTrack Lost and Found system.	Week 1-2 Completion
Prototype/First Draft	Basic authentication, Lost/Found item posting, and initial UI prototype completed.	Week 3-4 Completion
Mid-Term Review	Integrated auto-matching logic, categories, and admin moderation features.	Week 5-6 Completion
Final Submission	Completed full deployment of CampusTrack with admin dashboard and analytics.	Week 7-8 Completion
Presentation	Final demonstration of the CampusTrack system to mentor and peers	23/12/2025

5b. Project execution details

The project execution followed a modular and incremental development approach. The backend and frontend were developed in parallel to ensure seamless API integration. MVC architecture was used in Spring Boot for clean separation of concerns, while REST APIs facilitated communication with the frontend. Regular testing and reviews were conducted at each milestone to ensure stability and correctness. Deployment was carried out using cloud hosting, enabling real-time access and testing.



CampusTrack

Manage Users View Lost Items View Found Items Reported Users Matched Items Recovered Items Logout

Dashboard

Collapse

- Users: 5
- Chats: 2
- Blocks: 0
- Reported Lost: 1
- Found Items: 0
- Announcements: Notice Board
- Matched: 2
- Recovered: 2

Manage Users

Name	Email	Role	AdminId	Actions
Admin	admin@university.edu	admin	2UI548	<button>View</button> <button>Delete</button>
Amar	amar@university.edu	user	-	<button>View</button> <button>Delete</button>
Vinod	vinod@university.edu	user	-	<button>View</button> <button>Delete</button>

CampusTrack Hi, admin

DashboardManageReport LostReport FoundView ItemsMatchesNotificationsChatLogout

My Dashboard

Refresh

Lost Items

1

Items you reported lost

Found Items

0

Items reported found on campus

Matched

0

Overall matched items

Recovered

1

Overall recovered items

Last updated: 12/19/2025, 7:07:29 PM

Announcements

The website is started!

Use for good

12/16/2025, 11:19:36 PM

All Reported Lost Items

Filters

From

dd-mm-yyyy

To

dd-mm-yyyy

Location

e.g. Library

Category (Brand)

All

Clear

Mobile
Brand: iphone
Model No: 14
Location: campus
Lost On: 2/2/2025, 2:02:00 AM
About: silver

Conversations

V

vinod@university.edu

hello

Chat —

V

vinod@university.edu

vinod@university.edu

Live

Report / Block

Close

vinod@university.edu

t

V

hi

A

hello

Type a message...

Send

Email instead

7. Challenges Faced

- ◆ Restricting platform access strictly to verified campus users.
- ◆ Designing accurate matching logic for incomplete or vague item descriptions.
- ◆ Handling image uploads and storage efficiently.
- ◆ Ensuring user privacy during communication.
- ◆ Building an admin-friendly dashboard with real-time insights.

8. Learnings & Skills Acquired

- Practical experience with **Spring Boot, JWT authentication, and REST APIs**.
- Frontend development using **React, Vite, and Tailwind CSS**.
- Database schema design and integration with **MySQL**.
- Implementation of **matching algorithms and search optimization**.
- Development of **admin dashboards, reporting, and analytics**.
- Improved teamwork, documentation, and project planning skills.

9. Testimonials from team

“The internship strengthened our full-stack development skills through a real-world project.”

— Vivek Lokolakar

“This project helped me gain practical experience in building and integrating Java-based applications while improving my problem-solving and development skills.”

— Sneha Chaudhary

“The CampusTrack project provided valuable real-world exposure to full-stack development and system design.”

— Suriyaganesh J T

10. Conclusion

The CampusTrack project provided valuable exposure to designing, developing, and deploying a real-world full-stack application. The internship enhanced our technical expertise in web development, backend systems, and basic AI integration while also improving teamwork and project management skills. This experience aligns strongly with our academic learning and future career aspirations in software engineering.

11. Acknowledgements

We sincerely thank **Infosys Springboard**, our mentors, and the academic coordinators for their continuous guidance, support, and encouragement throughout this internship.