

CONNECT PLUS

Academic Year: 2025-26

Branch: CSE

Section: B

PROJECT TITLE: Connect Plus: Bridging Alumni and Students

DOMAIN: Web Development & Cloud Integration

Type Of the Project (Application/ Product/ Research): Product

Team Number: 4

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Abstract

Connect Plus is a digital platform developed to build a strong bridge between students and alumni of an institution. The system enables alumni to register, login, and share announcements or opportunities via time-bound posts that include text, images, and expiry timestamps. Students can explore these posts in a dynamic, real-time timeline view that automatically filters out expired content.

The application ensures easy navigation, responsive design, and efficient backend handling of events and data. It also incorporates features like image viewing, announcement expiry automation, and a clean dashboard. Faculty and students benefit from access to alumni profiles and event tracking. The project emphasizes modular development and continuous integration/deployment following DevOps principles.

Planned Implementation

The development is organized into weekly milestones, each delivering key features through assigned roles:

Week	DevOps Stage	Development Activities	DevOps Activities	Tools/Technologies
Week 1	Plan	Define functional modules, data models, and user roles. Set up GitHub repo and issue board.	Sprint planning, roadmap creation, task assignments	GitHub Projects
Week 2	Develop	Build Home, Login, Register, Profile pages with validation using React and Bootstrap.	Branch-based modular coding with version control	React.js, Bootstrap 5, Git, GitHub
Week 3	Build	Develop backend APIs for authentication, image posting, and event creation.	Commit code, set up Webpack for bundling, check for code consistency	Express.js, Firebase, , GitHub Actions
Week 4	Test	Integrate backend with frontend. Build timeline page showing sorted, expiring events.	Unit testing of API endpoints and frontend components	Postman
Week 5	Release	Add auto-expiry logic using cron or Firebase Functions. Finalize all event UI features.	Prepare production build and tag release version	Firebase Functions, GitHub Tags, npm
Week 6	Deploy	Finalize UI components, polish responsiveness and error handling.	Configure GitHub Actions for CI/CD, deploy on Firebase or Vercel	GitHub Actions, Firebase Hosting,
Week 7	Operate	Finalize test cases, handle edge cases, and write documentation (README, APIs).	Setup DB validation, monitoring for image and auth failures	Firebase Realtime DB, Firestore Rules, Google Cloud Logs

Week 8	Monitor	Deploy final build, record demo, and test performance in production.	Analyze Firebase usage, log cleanup, and capture performance metrics	Firebase Logs
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Final Deliverables

- React Frontend with all pages
- Node.js Backend with Firebase integration
- CRUD for posts with expiry logic
- CI/CD setup using GitHub Actions
- Tested application and documentation
- Live demo link and submission package

Tools & Technologies

- Frontend: React.js + Bootstrap 5
- Backend: Node.js + Express
- Database: Firebase Realtime Database
- Storage: Firebase (Base64 for images)
- Version Control: Git + GitHub
- CI/CD: GitHub Actions
- Deployment: Firebase Hosting / vercel
- Testing: Manual + Postman