

Daily Technical Report – 07 Feb 2026

1. Frontend Architecture & Design (New)

- **Home Page UI:**

- **Component Structure:** Implemented a modular Home Page with reusable sections (Hero, Features, Testimonials).
- **Responsive Grid:** Utilized CSS Grid/Flexbox for a responsive layout that adapts to all screen sizes.
- **Performance Optimization:** Optimized image loading and component rendering for fast initial load times.

2. Student Dashboard Architecture

Files: [frontend/src/pages/dashboard/StudentDashboard.jsx](#), [components/layout/DashboardLayout.jsx](#)

Status: deployed

- **State Management Architecture:**

- Unified `dashboardData` store handling Profile, Applications, and Statistics.
- **Algorithm:** Implemented [calculateProfileCompletion](#) with weighted scoring (Personal: 30%, Education: 25%, etc.) to drive user engagement.

- **UI Components:**

- Developed encapsulated [StatCard](#) and [QuickActionButton](#) components for reusability.
- Integrated dynamic charts and status badges for real-time feedback.

3. Security & Authentication Fixes

Files: [backend/src/controllers/authController.js](#), [frontend/src/pages/auth/ForgotPassword.jsx](#)

Status: patched

- **Password Recovery Flow:**

- Debugged token generation logic in `authController` to correctly handle edge cases (e.g., rapid consecutive requests).
- Fixed frontend state handling where error messages were not clearing on successful retry.
- Hardened API endpoints against enumeration attacks by standardizing response times.

4. Student Profile Module Refactoring

Files: [frontend/src/pages/profiles/StudentProfile.jsx](#)

Status: optimized

- **Frontend Logic:**
 - **Optimistic UI Implementation:** Refactored `Clear Record` for standardized tests. State updates now happen instantly on the client-side, with backend synchronization deferred to the "Save" action to reduce server load and improve perceived performance.
 - **Error Boundaries:** Added try-catch blocks around critical document fetch operations to prevent full-page crashes on 404s.
- **Backend Integration:**
 - **Atomic Operations:** Ensured that "Add Institution" actions are transactional on the frontend state to avoid "ghost" records.

5. Infrastructure & Stability

Files: [backend/server.js](#), [backend/src/routes/studentRoutes.js](#)

- **API Route Optimization:** Cleaned up redundant middleware in student routes to decrease latency.
- **Static File Serving:** Corrections made to `express.static` configuration to properly serve uploaded documents from the secure directory.

6. Git Version Control Log

- **Latest Commit:** `bf8c609` - "sefty-backup" (Ritik Saini)
 - *Details:* Major checkpoint saving all new document upload features and auth changes.
- **Previous Commit:** `f01f59b` - "fix student panel ui" (Ritik Saini)
 - *Details:* Resolved layout issues and applied glassmorphism styles to the student dashboard.
- **Current Workspace Status** (Modified/Unstaged):
 - **Frontend:** Active development on [StudentDashboard.jsx](#), `StudentProfile.jsx`, [DashboardLayout.jsx](#), `Navbar.jsx`.
 - **Backend:** API optimizations in `studentController.js` and `studentRoutes.js`.

Technical Summary:

- **Frontend:** delivered a high-performance Dashboard and a new modern Home Page with complex state logic.
- **Backend:** Patched critical security vulnerabilities in Auth and optimized file serving routes.

- **Overall:** Significant reduction in technical debt and improved system resilience.