

Schools24 Platform - Week 2 Progress Report

Period: January 5 - January 11, 2026

Project: School Management Platform

Status: Backend Development Phase - On Track

Executive Summary

Week 2 focused on building the core backend APIs and optimizing the infrastructure for cost-effective cloud hosting. All major user-facing modules are now ready for frontend integration for testing.

What We Built This Week

Infrastructure Optimization

- Single Container Architecture: High-speed binary optimized for Oracle Cloud ARM VM
- Cost-Free Hosting: Configured for \$0/month deployment on Oracle Always Free tier
- Embedded Caching: Low-latency in-memory cache with data compression
- Integrated Security: Built-in JWT auth, rate limiting, and CORS protection

Authentication System

- User registration with email and password
- Secure login with JWT tokens
- Profile viewing and updating
- Password-protected routes

Student Management

- Student dashboard with summary statistics
- Student profile management
- Attendance tracking and viewing
- Class assignment and listing

Academic Features

- Timetable viewing by day and period
- Homework assignments listing
- Homework submission by students
- Grade records and viewing
- Subject catalog management

Website Development

- Website frontend built and developing for backend integration
- User interface components ready for API connection
- Responsive design across all devices

Database Setup

- 11 tables created and configured:
 - Users, Password Resets
 - Classes, Students, Teachers, Subjects
 - Attendance, Timetables
 - Homework, Homework Submissions, Grades
- Secure connections to Neon PostgreSQL and MongoDB Atlas

Technical Achievements

- 17 working API endpoints
- Automatic database table creation
- JWT-based authentication ready
- Rate limiting (100 requests/minute)
- Cross-origin request support for web apps
- Build verified and tested

Next Steps (Week 3)

- Implement Teacher module (create homework, mark attendance, enter grades)
- Implement Admin module (user management, class management)
- Connect frontend application to backend APIs
- Deploy to Oracle Cloud server
- Begin mobile app integration

Resources Allocated

Development Team: UpCraft Solutions

Report Generated: January 11, 2026

Next Report: January 18, 2026