

STUDENT GRADE MANAGEMENT SYSTEM

Streamlining Academic Records, Grade Processing,
and Student Performance Analysis

PREPARED BY

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System Designer & Developer

TARGET INSTITUTION

Providence International High School

Freetown, Sierra Leone

PROJECT YEAR

2024

THE CHALLENGE & THE VISION

Moving elite educational institutions from manual spreadsheet dependencies to responsive automated grade analytical platforms.

GRADING BOTTLENECKS

- ✓ **Manual Formula Vulnerabilities:** Basic spreadsheets expose calculations to accidental keystrokes, leading to critical grade reporting inaccuracies.
- ✓ **Inordinate Processing Delay:** Teachers lose hundreds of classroom preparation hours manually compiling individual reports at term end.
- ✓ **Lack of Real-time Insight:** Principals cannot proactively intervene when a student is struggling during intermediate assessments.



CORE SYSTEM FEATURES



Smart Calculations

Auto-computes continuous assessments (40%) and exams (60%) based on customized school matrices.



Advanced Analytics

Ranks student tiers and highlights high-risk pupils immediately upon grade publication.



Secure Storage

Database architectures preventing administrative tampering and unauthorized report access.

PROCESSING ACCELERATION

90%

FEWER ADMIN HOURS

Focusing on Pedagogy, Not Math

By replacing tedious physical records with our dynamic solution, school staff reduce grading cycle workloads dramatically.

Teachers at Providence High School can deploy fast grading structures, reducing total turnaround from weeks to mere minutes.

PROVIDENCE HIGH SCHOOL INTEGRATION

Designed explicitly to support elite academic standards in Sierra Leone, aligned perfectly with local and regional grading policies.

DEPLOYMENT STRATEGY

Configured for Sierra Leone

Pre-loaded with continuous assessment parameters adhering to WASSCE guidelines. Easy support for grading rules from A1 to F9, providing perfect report sheets compliant with West African standards.

Simple Faculty Adoption

An easy interface designed for teachers of all digital literacy backgrounds. Zero configuration required by instructors—simply input subject marks and let the engine process rankings.

SYSTEM IMPROVEMENTS

ADMINISTRATIVE TASK	TRADITIONAL SPREADSHEET WORKFLOW	NEW GRADE MANAGEMENT SYSTEM
Grade Processing	Highly manual; prone to clerical calculation errors.	✔ 100% Automated Calculations
Continuous Assessment	Difficult to sync and aggregate among term parameters.	✔ Unified CA Dashboard
Report Generation	Slow physical printing and individual sheet preparation.	✔ Single-click PDF Reports
Security	Vulnerable file sharing and easy file manipulation.	✔ Authenticated Admin Controls

SLEEK ADMIN DASHBOARD

User-Centric Architecture

The system renders visual analytics effortlessly. School administrators access immediate, clear visualizations of grade trends, rank lists, and standard subject metrics in real-time. Designed to be clean and modern, avoiding cartoon aesthetics to suit elite stakeholders and school boards.



QUESTIONS & DISCUSSION

EMPOWERING SCHOOLS WITH PREMIUM EDUCATIONAL ANALYTICS



Paul Nyakeh Amara-Vandy (System Designer)



Providence International High School

IMAGE SOURCES



https://png.pngtree.com/thumb_back/fw800/background/20250828/pngtree-cyberpunk-server-room-with-neon-lights-and-towering-computer-racks-futuristic-image_18283398.webp

Source: [pngtree.com](https://png.pngtree.com)



<https://cdn.dribbble.com/userupload/44332009/file/84c558bf1e97ff630880c97a118c14c3.png?resize=752x&vertical=center>

Source: dribbble.com