

TemseeEdu — Complete Product PRD

Product Name

TemseeEdu

Tagline

Modern Digital Infrastructure for African Schools.

1. Executive Summary

TemseeEdu is a modern modular school digital ecosystem designed for African educational institutions.

The platform combines:

- School websites
- Admissions systems
- Student management
- Parent engagement
- Academic operations
- Financial systems
- Communication tools
- AI integrations
- Analytics
- Multi-school SaaS infrastructure

TemseeEdu is designed to:

- run initially on affordable infrastructure
- scale into enterprise deployments
- support modular feature expansion
- support white-label deployments
- provide recurring SaaS revenue

The platform targets:

- SHS/Senior High Schools
- Universities
- Colleges
- International schools
- Vocational institutions
- Basic schools

- Training centers
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2. Product Vision

To become the leading modern school operating system in Africa by combining beautiful user experience, practical workflows, scalable architecture, and affordable deployment.

3. Product Goals

Primary Goals

- Digitize school operations
- Improve parent-school communication
- Modernize institutional branding
- Reduce manual processes
- Provide scalable infrastructure
- Enable recurring revenue business model

Secondary Goals

- White-label deployments
 - Multi-tenant SaaS support
 - AI-powered education workflows
 - Mobile-first education infrastructure
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4. Product Philosophy

TemseeEdu should be:

- modern
 - modular
 - scalable
 - mobile-first
 - beautiful
 - reliable
 - affordable
 - developer-friendly
 - institution-friendly
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5. Core Architecture

Backend

- Laravel
- PHP 8.3+
- MySQL/MariaDB
- Redis
- Queues

Frontend

- Blade
- Livewire
- Alpine.js
- TailwindCSS
- GSAP animations

Optional Frontend Expansion

- React
- Inertia.js
- Mobile apps

Infrastructure

- Shared hosting compatible
 - VPS scalable
 - Cloud-ready
 - Docker-ready future support
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6. System Modules

CORE MODULES

1. Website CMS
2. Admissions
3. Student Information System
4. Parent Portal
5. Staff Portal
6. Academic Management
7. Finance Management
8. Communication System

- 9. Library Management
 - 10. Hostel Management
 - 11. Transport Management
 - 12. AI Assistant
 - 13. Analytics & Reports
 - 14. Mobile Applications
 - 15. Multi-School SaaS
 - 16. E-Learning System
 - 17. CBT/Exam System
 - 18. Inventory Management
 - 19. HR & Payroll
 - 20. Alumni Management
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7. User Types

Super Admin

Platform owner.

School Admin

Institution owner/admin.

Headmaster/Principal

Executive school management.

Academic Administrator

Academic operations.

Teachers

Teaching and assessments.

Students

Academic access.

Parents/Guardians

Student monitoring.

Accountant

Financial management.

Librarian

Library operations.

Hostel Manager

Hostel administration.

Admissions Officer

Admissions workflows.

IT Officer

Technical management.

8. Website CMS Module

Features

- Dynamic homepage builder
- Drag-and-drop sections
- News management
- Events management
- Gallery management
- Leadership profiles
- SEO management
- Media uploads
- Video embeds
- PDF/document uploads
- Custom pages
- Menus/navigation
- Hero sliders
- Testimonials
- FAQ management
- Announcements
- Admissions pages
- Contact forms

User Stories

As a school admin

I want to update the homepage without coding.

As a parent

I want to access school information easily on mobile.

As a visitor

I want to browse events, galleries, and admissions information.

9. Admissions Module

Features

- Online applications
- Application tracking
- Admission workflows
- Applicant dashboard
- Document uploads
- Admission approvals
- Student onboarding
- Student ID generation
- Admission notifications
- Email/SMS alerts
- Prospectus downloads
- Entrance exam support
- Interview scheduling
- PDF admission letters

User Stories

As an applicant

I want to apply online.

As an admissions officer

I want to review applications efficiently.

As a parent

I want to track admission status.

10. Student Information System (SIS)

Features

- Student profiles
- Academic records
- Attendance
- Class assignments
- Student documents
- Student history
- Student promotion
- House assignments
- Medical information
- Guardian management
- Student ID cards
- Discipline records
- Performance analytics

User Stories

As a student

I want to view my academic records.

As an admin

I want centralized student management.

11. Parent Portal

Features

- Student monitoring
- Attendance tracking
- Fee tracking
- Academic reports
- Notifications
- Messaging system

- Event updates
- Assignment tracking
- Performance analytics

User Stories

As a parent

I want to monitor my child's academic progress.

As a parent

I want notifications about important school updates.

12. Teacher Portal

Features

- Class management
- Attendance entry
- Assignment uploads
- Exam uploads
- Result management
- Lesson plans
- Communication tools
- Timetable access
- Resource sharing

User Stories

As a teacher

I want to upload results quickly.

As a teacher

I want to manage class attendance digitally.

13. Academic Management Module

Features

- Subjects
- Courses
- Departments
- Timetables
- Exams
- Grading systems
- Report cards
- GPA calculations
- Academic calendar
- Transcript generation
- Promotions
- Semester management
- Result publishing

User Stories

As a student

I want to access my report cards online.

As an academic admin

I want to manage grading systems.

14. Finance Module

Features

- Fee structures
- Student billing
- Receipts
- Invoices
- Payment tracking
- Scholarships
- Financial reports
- Payment reminders
- Online payments
- Payment gateway integration
- Accounting support

Payment Integrations

- Hubtel
- Paystack
- Flutterwave
- MTN MoMo
- Vodafone Cash
- AirtelTigo Money

User Stories

As a parent

I want to pay fees online.

As an accountant

I want financial reports and reconciliations.

15. Communication Module

Features

- SMS broadcasting
- Email broadcasting
- Push notifications
- Parent messaging
- Internal messaging
- Notices
- Circulars
- Newsletters
- Event reminders
- Emergency alerts

User Stories

As a school admin

I want to notify parents instantly.

As a parent

I want timely school updates.

16. Library Management Module

Features

- Book catalog
 - Borrowing system
 - Returns
 - Fines
 - Barcode support
 - Digital library
 - Search system
 - Reservation system
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17. Hostel Management Module

Features

- Hostel allocation
 - Bed management
 - Student assignments
 - Hostel reports
 - Visitor logs
 - Hostel fee tracking
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18. Transport Management Module

Features

- Bus routes
 - Driver management
 - Student transport assignments
 - GPS integrations
 - Pickup scheduling
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19. Inventory Management Module

Features

- Asset tracking

- Consumables
 - Purchase records
 - Stock management
 - Inventory reports
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20. HR & Payroll Module

Features

- Staff management
 - Payroll processing
 - Salary structures
 - Leave management
 - Staff attendance
 - Performance evaluations
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21. CBT / Online Exam Module

Features

- Online exams
 - Question banks
 - Auto grading
 - Timed exams
 - Randomization
 - Analytics
 - Anti-cheating measures
 - Practice tests
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22. E-Learning Module

Features

- Course uploads
- Video lessons
- Assignments
- Live classes
- Zoom integration
- Student submissions
- Discussion forums

- Learning analytics
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23. AI Features

AI Assistant

- Student assistant
- Parent assistant
- School chatbot
- Admissions assistant
- AI search
- AI-generated announcements
- AI-generated reports
- AI analytics insights

Future AI Possibilities

- AI grading assistance
 - Predictive performance analytics
 - AI tutoring
 - AI attendance insights
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24. Analytics & Reports

Features

- Student performance analytics
 - Attendance analytics
 - Financial analytics
 - Admissions analytics
 - Custom reports
 - Export systems
 - Dashboard visualizations
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25. Mobile Applications

Student App

- Results
- Assignments

- Notifications
- Attendance
- Learning resources

Parent App

- Monitoring
- Messaging
- Payments
- Notifications

Teacher App

- Attendance
- Results
- Assignments

26. Multi-School SaaS

Features

- Multi-tenant architecture
- School onboarding
- Subscription billing
- White-label support
- Tenant isolation
- Central analytics

27. Security Requirements

Security Features

- RBAC
- 2FA
- Audit logs
- Rate limiting
- Encrypted passwords
- Activity monitoring
- Secure uploads
- CSRF protection
- XSS protection
- SQL injection prevention

- Backups
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28. Performance Requirements

Optimization

- Image optimization
 - Lazy loading
 - Queue jobs
 - Redis caching
 - CDN support
 - Database optimization
 - LiteSpeed support
 - API caching
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29. SEO Requirements

SEO Features

- Meta tags
 - Structured data
 - Sitemaps
 - OpenGraph
 - Fast loading
 - Mobile optimization
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30. UI/UX Requirements

Design Philosophy

- Modern institutional aesthetic
- Elegant spacing
- Mobile-first layouts
- Beautiful typography
- Smooth animations
- Accessibility support
- Dark mode support

Animation System

Using:

- GSAP
 - CSS animations
 - Alpine transitions
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31. Branding Features

White Labeling

- Custom domains
 - Custom branding
 - School themes
 - Custom logos
 - Theme builder
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32. API Requirements

APIs

- REST APIs
 - Webhooks
 - Third-party integrations
 - Mobile app APIs
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33. Integrations

Communication

- Twilio
- Arkesel
- Hubtel

Payments

- Paystack
- Flutterwave

- Hubtel
- Stripe

Education

- Zoom
- Google Classroom

Authentication

- Google login
 - Microsoft login
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34. Technical Stack

Backend

- Laravel
- Livewire
- MySQL
- Redis

Frontend

- TailwindCSS
- Alpine.js
- GSAP

DevOps

- GitHub
 - CI/CD
 - Docker future support
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35. Suggested Laravel Packages

Core Packages

- Filament
- Livewire
- Spatie Permission
- Spatie Media Library

- Laravel Backup
 - Activity Log
 - Laravel Excel
 - DomPDF
 - Scout
 - Sanctum
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36. Monetization Strategy

Revenue Sources

One-Time Setup Fees

- Website setup
- School onboarding
- Data migration
- Custom branding

Recurring Revenue

- Monthly SaaS subscriptions
- Hosting
- Maintenance
- SMS services
- AI services
- Premium support

Addon Revenue

- CBT module
 - Hostel module
 - Payroll module
 - Mobile apps
 - AI assistant
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37. Pricing Model

Basic Plan

- Website
- Admissions
- Basic portals
- Announcements

Standard Plan

- Results
- Attendance
- Communication
- Finance

Premium Plan

- AI
- Mobile apps
- E-learning
- Advanced analytics

Enterprise Plan

- Multi-school
 - Custom integrations
 - Dedicated support
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38. Long-Term Vision

TemseeEdu should evolve into:

- Pan-African school infrastructure platform
 - Multi-country SaaS ecosystem
 - Education data platform
 - AI-powered institutional OS
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39. Development Roadmap

Phase 1

- Website CMS
- Admissions
- Student portal
- Parent portal
- Basic results
- Communication

Phase 2

- Finance
- CBT
- E-learning
- Mobile apps

Phase 3

- AI systems
- Multi-tenancy
- White-labeling
- APIs

Phase 4

- Full SaaS ecosystem
 - Marketplace
 - Enterprise integrations
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40. Final Product Goal

TemseeEdu should become:

The modern operating system for African educational institutions.

Not just another school ERP.

But a complete institutional digital ecosystem.