

# **SHIVAKARMA INFOTECH SOLUTIONS PVT. LTD.**





## **Shivakarma Infotech Solutions Pvt Ltd**

## edu - Al

Comprehensive Project Proposal & Business Plan

School Management System ERP Software

**Document Version: 2.0** 

Date: August 2025

**Project Duration:** 12 Months Development + Ongoing Sales

Project Type: Enterprise Software Development

**Target Market:** K-12 Educational Institutions (Multi-Branch)

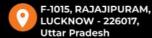




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## 1. Executive Summary

### 1.1 Project Vision

edu - Al represents a transformative investment opportunity in the educational technology sector. This comprehensive School Management System ERP is designed to revolutionize how educational institutions manage their operations, from academic administration to financial management. The project encompasses 12 months of intensive development followed by a strategic market entry with dual revenue models.

#### 1.2 Business Opportunity

The Indian education sector, with over 1.5 million schools and growing digital adoption, presents a massive market opportunity. Post-pandemic, schools are actively seeking comprehensive digital solutions to manage operations efficiently. Our market research indicates that 68% of private schools are planning to invest in ERP solutions within the next 24 months.

#### 1.3 Investment Summary

Investment Component	Amount (INR)	Percentage
Development Costs	₹1,85,00,000	58%
Infrastructure & Technology	₹45,00,000	14%
Office & Operations	₹38,00,000	12%
Marketing & Sales	₹32,00,000	10%
Contingency Reserve	₹20,00,000	6%
Total Project Investment	₹3,20,00,000	100%



#### 1.4 Revenue Models

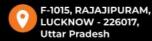
#### Model 1: Subscription-Based (SaaS)

- Target: Large schools (1000+ students)
- Pricing: ₹15-25 per student per month
- Projected Monthly Recurring Revenue: ₹45,00,000+ (after 18 months)

#### Model 2: One-Time License + AMC

- Target: Medium schools (500-1000 students)
- License Fee: ₹3,00,000 ₹8,00,000
- Annual Maintenance: 18-20% of license fee







## 2. Project Overview & Business Case

#### 2.1 Market Analysis

The educational ERP market in India is experiencing unprecedented growth, driven by digital transformation initiatives and the need for operational efficiency. Our comprehensive market analysis reveals:

#### Market Size and Growth

- Current Market Size: ₹2,800 crores (2024) with a CAGR of 23%
- Addressable Market: 45,000+ private schools with 500+ students
- Technology Adoption Rate: 42% of schools have partial digital systems, only 12% have comprehensive ERP
- Growth Drivers: NEP 2020 compliance, parent expectations, operational complexity

#### 2.2 Competitive Advantage

edu - Al differentiates itself through:

- Multi-Branch Architecture: Unique Main Account ID system for educational groups
- Comprehensive Module Coverage: 20+ integrated modules vs. competitors' 10-12
- Flexible Pricing: Both SaaS and perpetual license options
- Indian Context: CBSE/State board compliance, GST integration, local payment gateways
- · Mobile-First Design: Native apps for all stakeholders



## 2.3 Target Customer Segments

Segment	School Size	Characteristics	Revenue Model
Enterprise	5000+ students	Multi-branch, high budget	Subscription
Large	2000-5000 students	Single/few branches	Subscription
Medium	500-2000 students	Cost-conscious	License + AMC
Growing	200-500 students	Aspirational	Entry License





## 3. Financial Planning & Budget Analysis

## 3.1 Development Phase Budget (Months 1-12)

#### 3.1.1 Human Resource Costs

Role	Count	Monthly Salary	12-Month Cost
Project Director	1	₹2,00,000	₹24,00,000
Technical Architect	1	₹1,50,000	₹18,00,000
Senior Developers	4	₹1,00,000	₹48,00,000
Mid-level Developers	6	₹60,000	₹43,20,000
Junior Developers	4	₹35,000	₹16,80,000
UI/UX Designers	2	₹70,000	₹16,80,000
QA Engineers	3	₹50,000	₹18,00,000
Business Analysts	2	₹80,000	₹19,20,000
Database Administrator	1	₹90,000	₹10,80,000
DevOps Engineer	1	₹90,000	₹10,80,000
Total HR Cost	25	-	₹2,25,60,000



## 3.1.2 Infrastructure & Technology Costs

Component	Description	Cost (INR)
Cloud Infrastructure (AWS/Azure)	Development & staging environments	₹12,00,000
Software Licenses	IDEs, project management, design tools	₹8,00,000
Third-party APIs	SMS, payment gateways, maps	₹6,00,000
Security & Compliance	SSL, security audits, compliance certs	₹5,00,000
Development Hardware	Laptops, servers, networking	₹14,00,000
Total Infrastructure Cost		₹45,00,000

## 3.1.3 Office & Operational Expenses

Monthly Cost	12-Month Total
₹1,50,000	₹18,00,000
₹50,000	₹6,00,000
₹30,000	₹3,60,000
₹40,000	₹4,80,000
₹25,000	₹3,00,000
₹20,000	₹2,40,000
	₹37,80,000
	₹1,50,000 ₹50,000 ₹30,000 ₹40,000





## 4. Development Timeline & Milestones

## 4.1 12-Month Development Roadmap

Phase 1: Foundation & Core Modules (Months 1-3)

<ul> <li>Project setup &amp; team formation</li> <li>Architecture design &amp; technology stack finalization</li> </ul>	
<ul><li>Database schema design</li><li>UI/UX mockups for core modules</li></ul>	Full team onboarding
<ul> <li>Authentication &amp; authorization framework</li> <li>Multi-tenant architecture implementation</li> <li>Master data modules</li> <li>Control Panel basic features</li> </ul>	15 developers + 2 architects
<ul> <li>Student Information System</li> <li>Employee Management core</li> <li>Basic Front Office module</li> <li>API framework establishment</li> </ul>	Full development team



## Phase 2: Academic Modules (Months 4-6)

Month 4 Subject Management System	Month	Deliverables	Milestones
• Internal assessment system • Report card generation • Parent portal (academic features)  • Online examination system • Question bank management  Beta testing with pilot schools	Month 4	<ul><li> Time Table generation engine</li><li> Attendance tracking system</li></ul>	Alpha release of academic modules
• Question bank management  Month 6  Beta testing with pilot schools	Month 5	<ul><li>Internal assessment system</li><li>Report card generation</li></ul>	Integration testing begins
Performance analytics	Month 6	<ul><li> Question bank management</li><li> Result processing automation</li></ul>	Beta testing with pilot schools





## Phase 3: Administrative & Financial Modules (Months 7-9)

Month 7  Fees Management System Online payment integration Receipt generation Outstanding tracking  Complete Accounting module Financial reporting Budget management Audit trails  HR Management completion Payroll processing system Leave management Compliance certifications	Month	Deliverables	Key Features
<ul> <li>Financial reporting         <ul> <li>Budget management</li> <li>Audit trails</li> </ul> </li> <li>HR Management completion         <ul> <li>Payroll processing system</li> </ul> </li> <li>Month 9</li> <li>Financial modules UAT</li> <li>Compliance certifications</li> </ul>	Month 7	<ul><li>Online payment integration</li><li>Receipt generation</li></ul>	Payment gateway integration complete
Payroll processing system  Month 9  Compliance certifications	Month 8	<ul><li>Financial reporting</li><li>Budget management</li></ul>	Financial modules UAT
Employee self-service portal	Month 9	<ul><li>Payroll processing system</li><li>Leave management</li></ul>	Compliance certifications



## Phase 4: Support Modules & Integration (Months 10-12)

Month	Deliverables	Final Steps
Month 10	<ul><li>Transport Management</li><li>Hostel &amp; Mess Management</li><li>Library System</li><li>Store &amp; Inventory</li></ul>	Feature freeze
Month 11	<ul><li>MIS &amp; Analytics dashboards</li><li>MSG Panel (communication)</li><li>Mobile app development</li><li>Third-party integrations</li></ul>	Performance optimization
Month 12	<ul><li>System testing &amp; bug fixes</li><li>Documentation completion</li><li>Training material preparation</li><li>Go-live preparation</li></ul>	Product launch ready



## 5. Detailed Module Specifications

### **5.1 Front Office Module**

#### Overview

The Front Office module serves as the first point of interaction for visitors, prospective students, and daily administrative tasks. It streamlines reception desk operations and maintains comprehensive records of all front-office activities.

#### **Key Functionalities**

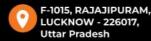
#### 5.1.1 Visitor Management System

- Visitor Registration: Digital entry system with photo capture, ID proof scanning, and visitor badge printing with QR codes for tracking
- Purpose Categorization: Classify visits (admission inquiry, parent meeting, vendor visit, official inspection) with automated routing to concerned departments
- **Appointment Scheduling:** Pre-booking system for parents and visitors with SMS/email confirmations and calendar integration
- **Security Integration:** Real-time alerts to security personnel for unauthorized access attempts and visitor overstay notifications
- Historical Records: Searchable database of all visits with advanced filters for security audits and pattern analysis

#### 5.1.2 Admission Inquiry Management

- Inquiry Form Processing: Digital forms with automatic data capture, duplicate detection, and lead scoring based on predefined criteria
- Follow-up Automation: Scheduled follow-up reminders, automated email/SMS campaigns, and conversion tracking





- Admission Status Tracking: Real-time status updates from inquiry to enrollment with parent portal visibility
- **Document Collection:** Checklist-based document verification system with missing document alerts
- Tour Scheduling: Campus visit appointments with staff assignment and feedback collection

#### 5.1.3 Communication Hub

- Call Log Management: Incoming/outgoing call records with purpose tagging and follow-up actions
- Postal Management: Inward/outward register for physical mail with scanning and digital archival
- Complaint/Request Register: Ticketing system for complaints with SLA tracking and escalation matrix
- Lost and Found: Digital catalog of lost items with photo uploads and claim processing

#### **Integration Points**

- Automatic inquiry conversion to admission module
- · Visitor appointments sync with staff calendars
- Security alerts integration with SMS/email system
- · Analytics dashboard for front office efficiency metrics



## 5.2 Student (Academic) Module

#### Overview

The Student Academic module is the cornerstone of the ERP system, managing the complete academic lifecycle of students from admission to graduation. It maintains comprehensive academic records and facilitates all student-related academic processes.

#### **Key Functionalities**

#### 5.2.1 Student Profile Management

- Comprehensive Student Database:
  - o Personal details with photo management and biometric data
  - Family information including siblings in school
  - Medical history, allergies, and emergency contacts
  - Previous academic records and transfer certificates
  - Extra-curricular achievements and awards
- **Document Repository:** Centralized storage for birth certificates, caste certificates, migration certificates with version control
- Student ID Generation: Unique ID with barcode/QR code for library, canteen, and attendance

#### 5.2.2 Academic Records Management

- Class & Section Assignment: Bulk promotion with rollback capability, section reshuffling based on performance
- Subject Enrollment: Core and elective subject selection with prerequisite validation
- Academic Performance Tracking:
  - Continuous assessment records (unit tests, assignments, projects)
  - o Term-wise examination results with graphical representation
  - Cumulative GPA/percentage calculations
  - Subject-wise performance analytics







- Peer comparison and class rankings
- Behavioral & Discipline Records: Incident reporting, counseling notes, disciplinary actions with parent notifications

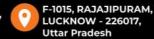
#### 5.2.3 Student Lifecycle Management

- Admission to Alumni Tracking: Complete journey mapping with milestone alerts
- Transfer Management: TC generation, dues clearance, record transfer to new school
- Character Certificate Generation: Automated certificates with customizable templates
- Alumni Database: Post-graduation tracking with career updates and networking features

#### **Advanced Features**

- Learning Analytics: Al-powered insights on student learning patterns and intervention recommendations
- Parent App Integration: Real-time updates on attendance, performance, and school announcements
- Digital Portfolio: Showcase of student work, projects, and achievements
- Remedial Support Tracking: Special coaching requirements and progress monitoring





## 5.3 Subject Module

#### Overview

The Subject module provides comprehensive management of academic subjects, curriculum planning, and subject-teacher allocations. It ensures proper structuring of the academic program across all classes and streams.

#### **Key Functionalities**

#### 5.3.1 Subject Configuration

- Subject Master Creation:
  - Subject code generation with naming conventions
  - Theory/Practical/Project components configuration
  - Credit hours and contact hours definition
  - Maximum and minimum marks setting
  - · Passing criteria for each component
- Subject Categorization: Core, elective, co-curricular, vocational classifications
- Language Options: Multiple language subject handling with script support

#### 5.3.2 Curriculum Management

- Syllabus Planning:
  - Chapter-wise syllabus breakdown with timelines
  - Learning objectives and outcomes mapping
  - · Reference material and resource linking
  - · Bloom's taxonomy level assignment
- Academic Standards Alignment: CBSE/State board compliance tracking
- Lesson Planning: Daily/weekly lesson plan templates with progress tracking

#### 5.3.3 Subject-Teacher Mapping







- Teacher Assignment: Primary and substitute teacher allocation with workload balancing
- Co-teaching Support: Multiple teacher assignment for practical subjects
- Teacher Qualification Matching: Automatic validation of teacher qualifications for subject assignment
- Period Allocation: Weekly period distribution across sections

#### **Integration Features**

- Automatic timetable generation based on subject requirements
- Examination schedule creation from subject configurations
- Report card generation with subject-wise analytics
- Teacher workload reports and optimization suggestions



### **5.4 Fees Module**

#### Overview

The Fees module handles all financial transactions related to student fees, providing flexible fee structures, multiple payment options, and comprehensive financial tracking. It ensures transparent fee management with automated reminders and detailed reporting.

#### **Key Functionalities**

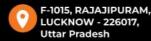
#### **5.4.1 Fee Structure Management**

- Flexible Fee Categories:
  - Tuition fees with class-wise variations
  - Transport fees with route-based calculations
  - Optional fees (sports, music, special coaching)
  - One-time fees (admission, caution deposit)
  - Seasonal charges (winter/summer uniforms)
- Fee Plans: Monthly, quarterly, semester-wise, annual payment options
- Dynamic Pricing: Late fee calculation, early payment discounts, sibling concessions
- Scholarship Management: Merit-based, need-based, and special category fee waivers

#### 5.4.2 Payment Processing

- Multiple Payment Channels:
  - Online payment gateway (cards, net banking, UPI, wallets)
  - Bank challan generation and reconciliation
  - · Cash counter with denomination tracking
  - Cheque/DD processing with clearance tracking
  - POS machine integration for card payments
- Partial Payment Handling: Accept part payments with balance tracking





- Advance Fee Collection: Next year fee booking with interest calculations
- Refund Processing: Withdrawal refunds with approval workflow

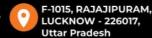
#### **5.4.3 Financial Controls**

- Automated Reminders: SMS/Email alerts for due dates, overdue notices with escalation
- Fee Defaulter Management: Automatic blocking of services, exam hall ticket generation hold
- Reconciliation Tools: Bank statement matching, daily collection reports
- Audit Trail: Complete transaction history with user stamps and reversal tracking

#### **Reporting & Analytics**

- Collection Reports: Daily, monthly, yearly summaries with graphical dashboards
- Outstanding Analysis: Age-wise outstanding, class-wise defaulters
- Revenue Forecasting: Expected vs actual collection tracking
- Tax Reports: GST compliant invoices and returns





### 5.5 Account Module

#### Overview

The Account module provides comprehensive financial management capabilities, maintaining complete books of accounts in compliance with accounting standards. It handles all financial transactions beyond student fees, including expenses, assets, and financial reporting.

#### **Key Functionalities**

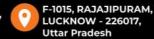
#### 5.5.1 General Ledger Management

- · Chart of Accounts:
  - Hierarchical account structure (4-5 levels)
  - Account groups: Assets, Liabilities, Income, Expenses, Capital
  - Cost center and profit center mapping
  - Department-wise accounting capability
- Journal Entries: Manual and automated posting with approval workflows
- Multi-Currency Support: Foreign currency transactions with exchange rate management
- Period Closing: Monthly and yearly closing procedures with rollback options

#### 5.5.2 Expense Management

- Purchase Order System: Requisition to PO workflow with budget checking
- Vendor Management:
  - · Vendor master with GST details
  - Payment terms and credit period tracking
  - Vendor performance rating
  - Blacklisting functionality
- Bill Processing: Three-way matching (PO, GRN, Invoice)
- Payment Processing: Payment advice generation, NEFT file creation





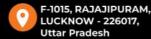
#### 5.5.3 Financial Reporting

- Standard Reports:
  - Trial Balance with drill-down capability
  - Profit & Loss Statement (format as per requirements)
  - Balance Sheet (vertical and horizontal formats)
  - Cash Flow Statement (direct and indirect methods)
  - Fund Flow Statement
- Management Reports: Budget vs actual, department-wise P&L, project-wise accounting
- Statutory Compliance: GST returns, TDS returns, audit schedules

#### **Advanced Features**

- Budget Management: Budget creation, allocation, and variance analysis
- Fixed Asset Management: Asset register, depreciation calculation, disposal tracking
- Bank Reconciliation: Auto-matching with statement import facility
- Inter-Branch Accounting: Consolidated financial statements





#### 5.6 HR Module

#### Overview

The HR module manages the complete employee lifecycle from recruitment to retirement. It streamlines HR processes, ensures compliance, and provides employee self-service capabilities, making HR operations efficient and transparent.

#### **Key Functionalities**

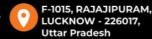
#### 5.6.1 Recruitment Management

- · Job Posting System:
  - Internal job portal with application tracking
  - Integration with external job boards
  - Automated screening based on keywords
  - Interview scheduling with panel availability
  - Offer letter generation and acceptance tracking
- Onboarding Process: Digital joining formalities, document collection, induction scheduling
- Background Verification: Integration with verification agencies, status tracking

#### 5.6.2 Employee Information Management

- Comprehensive Employee Database:
  - Personal details with family information
  - Educational qualifications and certifications
  - Previous employment history
  - Skills matrix and competency mapping
  - Emergency contacts and medical information
- Document Management: Digital storage of certificates, contracts, appraisals
- Organization Structure: Hierarchical reporting structure with position management





#### 5.6.3 Attendance & Leave Management

- Multiple Attendance Capture:
  - Biometric integration (fingerprint, face recognition)
  - Mobile app with geo-fencing
  - Web-based marking for remote work
  - Shift management with roster planning
  - o Overtime calculation and comp-off management
- Leave Management: Policy configuration, leave application workflow, balance tracking
- Holiday Calendar: Location-wise holiday management, restricted holidays

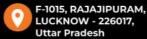
#### **5.6.4 Performance Management**

- Goal Setting: KRA/KPI definition with weightages, cascading goals
- Appraisal Process: 360-degree feedback, self-appraisal, bell curve normalization
- Training Management: Training need identification, calendar, effectiveness measurement
- Career Planning: Succession planning, skill gap analysis

#### **Employee Self-Service**

- Personal information updates with approval
- Leave applications and balance checking
- Payslip download and tax declarations
- · Internal job applications and referrals





## 5.7 Payroll Module

#### Overview

The Payroll module automates salary processing while ensuring compliance with statutory requirements. It handles complex salary structures, deductions, and tax calculations while providing transparency through employee self-service.

#### **Key Functionalities**

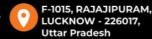
#### 5.7.1 Salary Structure Configuration

- Compensation Components:
  - Basic salary and grade-based structures
  - o Allowances: HRA, DA, TA, Medical, Special
  - Performance-based variables and incentives
  - o Deductions: PF, ESI, PT, TDS, loans
  - Employer contributions configuration
- Salary Templates: Grade-wise templates with CTC calculations
- Arrear Management: Automatic arrear calculation for increments/corrections

#### 5.7.2 Payroll Processing

- Monthly Processing Workflow:
  - Attendance integration and LOP calculation
  - Variable pay and reimbursement processing
  - · Loan EMI and advance deductions
  - Hold/release salary functionality
  - Bulk processing with exception handling
- Tax Calculations: TDS computation, tax planning, Form 16 generation
- Bonus Processing: Festival bonus, performance bonus with tax impact





#### **5.7.3 Statutory Compliance**

- PF Management: ECR file generation, UAN integration, withdrawal processing
- ESI Compliance: Contribution calculation, return filing support
- Professional Tax: State-wise PT calculation and payment
- Gratuity & Pension: Provision calculation and payment processing

#### **Reports & Outputs**

- Payslips: Digital payslips with password protection and email delivery
- Bank Files: Salary transfer files for multiple banks
- Statutory Reports: PF, ESI, PT returns and challans
- MIS Reports: Department-wise salary analysis, cost center reports





### **5.8 CBSE Examination Module**

#### Overview

The CBSE Examination module is specifically designed to handle the examination requirements of CBSE-affiliated schools. It manages both internal assessments and board examinations while ensuring compliance with CBSE guidelines and circulars.

#### **Key Functionalities**

#### 5.8.1 Examination Planning

- CBSE Calendar Integration: Automatic sync with CBSE examination dates and deadlines
- Internal Assessment Management:
  - Periodic test scheduling (PT1, PT2, etc.)
  - Subject enrichment activity tracking
  - o Portfolio maintenance
  - Multiple assessment parameters
- Pre-Board Examinations: Mock board exam scheduling with CBSE pattern

#### **5.8.2 CBSE Specific Features**

- CCE Pattern Support: FA and SA evaluation with grade calculation
- Co-Scholastic Assessment: Life skills, attitudes, values grading
- CGPA Calculation: Subject-wise and overall CGPA as per CBSE norms
- Registration Support:
  - Class IX and XI registration data preparation
  - Board exam registration for X and XII
  - LOC (List of Candidates) generation
  - Examination form filling support

#### 5.8.3 Result Processing



- Mark Entry Systems: Subject-wise, student-wise mark entry with validation
- Moderation Tools: Grace marks, scaling, and moderation as per CBSE rules
- Result Analysis:
  - Subject-wise pass percentage
  - Compartment/improvement identification
  - School vs CBSE average comparison
  - Toppers list generation
- CBSE Uploads: Format data as per CBSE requirements for uploading

### **Compliance Features**

- Automatic updates for CBSE circular implementation
- · OASIS integration support
- · Affiliation compliance tracking
- · Board inspection readiness reports





#### 5.9 Hostel Module

#### Overview

The Hostel module manages residential facility operations including room allocation, student care, and hostel administration. It ensures efficient hostel management while prioritizing student safety and comfort.

#### **Key Functionalities**

#### 5.9.1 Infrastructure Management

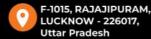
- Building Configuration:
  - · Multiple hostel blocks with floor plans
  - Room types: Single, double, triple, dormitory
  - Amenities tracking: AC/Non-AC, attached bathroom
  - Capacity management with occupancy tracking
  - Maintenance status and availability
- Furniture & Fixtures: Asset allocation to rooms, inventory tracking

#### 5.9.2 Student Allocation

- Room Assignment Process:
  - Online room preference collection
  - · Automatic allocation based on criteria
  - Roommate preference consideration
  - · Special needs accommodation
  - Mid-term room change requests
- Check-in/Check-out: Digital process with inventory handover and damage assessment
- Visitor Management: Parent visits, guest registration, overnight stay permissions

#### 5.9.3 Hostel Operations





#### Attendance Management:

- Daily roll call with biometric/RFID
- Night attendance and bed checks
- Leave/outing permissions
- · Late entry monitoring
- Home visit tracking
- Discipline Management: Rule violations, warning system, disciplinary committee
- Health & Safety: Medical emergency procedures, first aid tracking, doctor visits

#### **5.9.4 Fee Management**

- Hostel Fee Structure: Room-type based fees, security deposits, amenity charges
- Billing Integration: Automatic hostel fee addition to student accounts
- · Mess Fee Handling: Separate or combined billing options
- Damage Charges: Assessment and billing for property damage

#### Warden Dashboard

- · Real-time occupancy status and availability
- Student location tracking (in room, out, on leave)
- Emergency contact quick access
- Maintenance request management
- · Parent communication portal



### 5.10 Mess Module

#### Overview

The Mess module handles cafeteria and dining operations, managing meal planning, consumption tracking, and vendor management. It ensures nutritious meal delivery while optimizing costs and minimizing wastage.

#### **Key Functionalities**

#### 5.10.1 Menu Management

- · Menu Planning:
  - · Weekly/monthly menu creation
  - Nutritional value tracking
  - Special diet accommodations (veg, vegan, Jain)
  - Festival and special occasion menus
  - Student feedback integration
- Recipe Management: Standard recipes with quantity calculations
- Calorie Tracking: Meal-wise calorie and nutrition information

#### 5.10.2 Consumption Tracking

- Meal Attendance:
  - RFID/biometric based entry
  - Meal-wise consumption (breakfast, lunch, dinner, snacks)
  - · Guest meal management
  - Packed meal requests
  - Meal cancellation facility
- Wastage Monitoring: Daily wastage tracking with analytics
- Consumption Patterns: Analytics on popular dishes and timing





#### 5.10.3 Inventory & Vendor Management

- Raw Material Inventory:
  - Daily consumption tracking
  - Auto-indent generation
  - o Perishable goods management
  - FIFO implementation
  - Expiry tracking and alerts
- Vendor Management: Multiple vendor support, rate contracts, quality ratings
- Purchase Orders: Automated PO based on consumption patterns

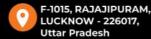
#### 5.10.4 Billing & Accounting

- Mess Fee Collection: Fixed monthly fees or per-meal billing
- Rebate Calculation: Automatic rebate for extended absence
- Cost Analysis: Per-meal cost calculation and optimization
- Vendor Payments: Bill processing and payment tracking

#### **Quality Control**

- · Food quality feedback system
- · Hygiene checklist and audit
- Complaint registration and resolution
- Menu committee integration





## **5.11 Transport Module**

#### Overview

The Transport module ensures safe and efficient transportation services for students and staff. It manages fleet operations, route optimization, and provides real-time tracking for enhanced safety and parent peace of mind.

#### **Key Functionalities**

#### 5.11.1 Fleet Management

- · Vehicle Database:
  - Detailed vehicle information (make, model, capacity)
  - Registration and permit details
  - Insurance tracking with renewal alerts
  - o Fitness certificate management
  - · Pollution certificate tracking

#### · Driver & Staff Management:

- o Driver profiles with license details
- · Background verification status
- Training and certification records
- Helper/conductor assignment
- Performance and violation tracking
- Maintenance Scheduling: Preventive maintenance calendar, service history, breakdown management

#### 5.11.2 Route Management

- · Route Planning:
  - GPS-based route optimization
  - o Multiple pickup/drop points







- Time slot management
- Distance calculation
- Traffic pattern consideration
- Student Allocation: Area-wise automatic allocation, stop assignment, route change requests
- Capacity Optimization: Load balancing across vehicles

#### 5.11.3 Real-time Tracking & Safety

- GPS Tracking:
  - Live vehicle location on map
  - Speed monitoring and alerts
  - Route deviation notifications
  - Geofencing for stops
  - Estimated arrival times
- Student Safety Features:
  - RFID-based boarding/deboarding
  - Parent notifications for pickup/drop
  - SOS/panic button in vehicles
  - Attendance in transport
  - Unauthorized stop alerts
- Parent App Features: Real-time bus tracking, arrival notifications, driver contact

#### 5.11.4 Transport Fee Management

- Fee Structure: Distance-based or zone-based fee calculation
- Billing Integration: Automatic transport fee addition to student accounts
- Route Change Impact: Pro-rata fee adjustment for mid-term changes
- Fuel Cost Management: Mileage tracking, fuel consumption analysis

#### **Operational Reports**

Daily trip sheets and logbooks



- · Vehicle utilization reports
- Cost per kilometer analysis
- Driver performance metrics
- · Safety compliance dashboard



## 5.12 Library Module

#### Overview

The Library module transforms traditional library management into a digital ecosystem. It manages both physical and digital resources while promoting reading habits through analytics and recommendations.

## **Key Functionalities**

#### 5.12.1 Catalog Management

### Resource Cataloging:

- · ISBN-based automatic metadata fetching
- Multiple resource types: books, magazines, CDs, e-books
- o Dewey Decimal Classification support
- Custom categorization and tagging
- Cover image management

#### Acquisition Management:

- Purchase request workflow
- Vendor comparison and ordering
- Donation management
- · Accession register maintenance
- Budget tracking and utilization
- Digital Library: E-book management, online database subscriptions, digital archives

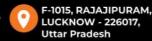
#### **5.12.2 Circulation Management**

#### • Issue/Return Process:

- · Barcode/RFID-based quick transactions
- Multiple copy management
- Due date calculations







- Renewal facility (online/offline)
- Hold/reservation system

#### • Member Management:

- Student/staff/guest memberships
- Category-wise borrowing limits
- Reading history maintenance
- Favorite genres tracking
- Recommendation engine
- Fine Management: Automated fine calculation, waiver requests, payment integration

#### 5.12.3 Academic Support

- Reference Management: Question paper repository, project reports, research papers
- Reading Lists: Course-wise recommended reading, syllabus-linked resources
- Book Bank: Textbook lending for economically disadvantaged students
- Research Support: Citation tools, plagiarism checking integration

#### **Advanced Features**

- OPAC (Online Public Access Catalog): Advanced search with filters
- Mobile App: Book search, renewal, e-book reading
- Reading Analytics: Popular books, genre preferences, reading trends
- Library Events: Book club management, author visits, reading competitions
- Inter-library Loan: Resource sharing with partner libraries



### 5.13 Time Table Module

#### Overview

The Time Table module uses advanced algorithms to generate optimal schedules while considering multiple constraints. It ensures efficient resource utilization and provides flexibility for changes and special arrangements.

## **Key Functionalities**

### 5.13.1 Master Configuration

#### · Academic Calendar Setup:

- Working days configuration
- Period timings and break schedules
- Zero periods and remedial slots
- · Assembly and activity periods
- Half-day schedules

#### • Resource Definition:

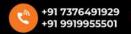
- Teacher availability matrix
- Room types and capacities
- Special room requirements (labs, music room)
- Shared resource management

#### **5.13.2 Constraint Management**

#### • Hard Constraints:

- · Teacher cannot be in two places
- Room capacity limits
- Lab availability for practicals
- Consecutive period requirements

#### • Soft Constraints:







- Teacher preferences for timing
- Maximum periods per day limits
- Distribution across the week
- Difficult subjects in morning slots

#### 5.13.3 Timetable Generation

#### Automatic Generation:

- · Al-based optimization engine
- Multiple solution generation
- Manual override options
- Incremental improvements

#### Types of Timetables:

- Regular class timetables
- Examination schedules
- Special event schedules
- Remedial class planning

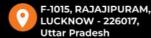
#### 5.13.4 Substitution Management

- Leave Integration: Automatic substitute suggestions based on teacher leave
- Workload Balancing: Fair distribution of substitution duties
- Free Period Utilization: Optimal use of teacher free periods
- Notification System: SMS/app notifications for substitutions

## **Viewing & Reports**

- · Teacher-wise, class-wise, room-wise views
- Student personal timetables, Workload analysis reports
- · Room utilization statistics
- · Printable formats for notice boards





## **5.14 Attendance Module**

#### Overview

The Attendance module provides comprehensive attendance tracking for students and staff with multiple marking methods. It ensures accurate records while providing real-time updates to stakeholders.

## **Key Functionalities**

#### 5.14.1 Student Attendance

#### • Multiple Marking Methods:

- Manual marking by teachers
- RFID card-based automatic marking
- o Biometric integration
- Mobile app-based marking
- QR code scanning

#### Attendance Types:

- Daily attendance
- Period-wise subject attendance
- Activity/sports attendance
- Exam attendance
- Special class attendance

#### • Leave Management:

- Online leave applications
- Medical leave with certificate upload
- Planned absence notifications
- · Leave approval workflow
- Attendance regularization

#### 5.14.2 Staff Attendance





### Marking Systems:

- Biometric devices at multiple locations
- Mobile app with geo-location
- Web-based marking for remote work
- Integration with access control systems
- Shift Management: Multiple shift definitions, roster planning, overtime tracking
- Leave Integration: Leave balance impact, automatic LOP calculation

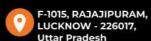
#### 5.14.3 Automation & Notifications

- Parent Notifications:
  - Daily absence SMS/email
  - Late coming alerts
  - Pattern detection (frequent absence)
  - Monthly attendance summary
- Defaulter Management: Automatic identification of low attendance, restriction from exams
- Holiday/Event Handling: Automatic holiday marking, mass leave entry

## **Reports & Analytics**

- Daily attendance summary with absentee lists
- Monthly/yearly attendance percentages
- Subject-wise attendance tracking
- · Attendance trends and patterns
- · Government compliance reports





## 5.15 Store & Inventory Module

#### Overview

The Store & Inventory module manages institutional supplies, equipment, and consumables. It ensures optimal stock levels while controlling costs through efficient procurement and consumption tracking.

## **Key Functionalities**

#### 5.15.1 Inventory Management

#### · Item Master:

- Hierarchical item categorization
- · Item specifications and images
- Multiple units of measurement
- Reorder levels and EOQ
- Preferred vendor mapping

## Stock Management:

- Multiple store locations
- Batch and expiry tracking
- FIFO/LIFO/Weighted average
- Stock valuation methods
- Physical verification tools

#### 5.15.2 Procurement Process

### Requisition Management:

- Department-wise requisitions
- Approval workflows
- Budget checking
- Consolidation of requirements
- · Emergency purchase handling







#### Purchase Orders:

- Vendor quotation comparison
- PO generation and tracking
- o Terms and conditions
- Delivery scheduling
- Quality parameters
- Goods Receipt: GRN with quality check, rejection handling, vendor rating

#### 5.15.3 Issue & Consumption

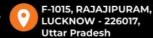
#### • Issue Management:

- Department-wise issue tracking
- o Individual item issue
- Returnable/non-returnable items
- Issue authorization
- Digital signatures
- Consumption Tracking: Department-wise consumption patterns, wastage monitoring

### **Asset Management**

- · Fixed asset register with depreciation
- · Asset tagging with QR/barcodes
- AMC tracking for equipment
- · Asset movement tracking
- · Disposal and write-off management





## 5.16 MIS (Management Information System) Module

#### Overview

The MIS module provides comprehensive analytics and reporting capabilities, transforming raw data into actionable insights. It offers real-time dashboards and predictive analytics for informed decision-making.

## **Key Functionalities**

#### 5.16.1 Executive Dashboards

- Key Performance Indicators:
  - Student enrollment trends
  - · Fee collection efficiency
  - Academic performance metrics
  - Staff utilization rates
  - Infrastructure usage

### Real-time Monitoring:

- Daily attendance summary
- · Fee collection status
- Pending approvals
- Transport tracking
- System health metrics
- Comparative Analysis: Year-over-year comparisons, branch-wise performance

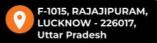
#### 5.16.2 Academic Analytics

## Performance Analysis:

- · Class-wise results comparison
- Subject difficulty analysis
- Teacher effectiveness metrics







- Learning outcome achievement
- Remedial requirement identification

#### • Predictive Analytics:

- At-risk student identification
- Performance prediction models
- Dropout probability assessment
- Career guidance insights

#### **5.16.3 Financial Analytics**

- Revenue Analysis: Source-wise income, collection trends, defaulter analysis
- Expense Monitoring: Department-wise expenses, budget utilization, cost optimization
- Profitability Analysis: Program-wise profitability, ROI calculations
- Cash Flow Projections: Future cash requirements, investment planning

## 5.16.4 Custom Reporting

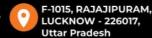
#### · Report Builder:

- o Drag-and-drop interface, Multiple data source joining
- o Complex calculations, Conditional formatting
- Multiple export formats
- Scheduled Reports: Automated generation and distribution
- Ad-hoc Queries: SQL query interface for power users

#### **Advanced Features**

- · Machine learning models for predictions
- Natural language query processing
- · Mobile BI app for executives, Integration with external BI tools
- · Data warehouse for historical analysis





## **5.17 MSG Panel (Messaging & Communication)**

#### Overview

The MSG Panel serves as the central communication hub, facilitating seamless information flow between all stakeholders. It ensures timely, relevant, and trackable communication through multiple channels.

## **Key Functionalities**

### 5.17.1 Multi-Channel Messaging

#### SMS Services:

- · Bulk SMS with template management
- Personalized messages with merge fields
- Multi-language support
- Delivery tracking and reports
- DND compliance handling

#### • Email Communication:

- Rich HTML email templates
- Attachment support
- Bounce handling
- · Read receipts
- Unsubscribe management
- Push Notifications: App-based instant notifications with deep linking
- WhatsApp Integration: Official Business API for notifications

#### **5.17.2 Communication Management**

### Audience Segmentation:

- · Dynamic groups creation
- · Rule-based filtering







- Saved segments
- Cross-segment messaging
- Message Scheduling: Future-dated messages, recurring communications
- **Template Library**: Pre-approved templates for common scenarios
- Approval Workflow: Multi-level approval for sensitive communications

#### **5.17.3 Automated Communications**

- Event-based Triggers:
  - o Birthday wishes
  - Fee payment reminders
  - Attendance alerts
  - Result declarations
  - Emergency notifications
- Drip Campaigns: Admission nurturing, parent engagement series
- System Notifications: Password resets, account updates, system maintenance

### **Analytics & Compliance**

- · Message delivery analytics
- Engagement metrics (opens, clicks)
- · Cost analysis per channel
- Communication history logs
- GDPR/privacy compliance tools



## 5.18 Control Panel

#### Overview

The Control Panel is the administrative nerve center providing system configuration, user management, and security controls. It ensures smooth system operation while maintaining data integrity and security.

## **Key Functionalities**

#### 5.18.1 System Configuration

- Organization Settings:
  - School profile and branding
  - Academic year configuration
  - Term/semester setup
  - Grading system definition
  - Document templates
- Module Configuration: Enable/disable modules, feature toggles, customization options
- Integration Settings: API keys, webhook URLs, third-party configurations

### 5.18.2 User & Access Management

- User Administration:
  - User creation and bulk import
  - Password policies
  - · Account locking/unlocking
  - Session management
  - Login history tracking
- Role-Based Access Control:
  - Granular permission management
  - Custom role creation





- Permission templates
- Temporary access grants
- Audit trails
- Security Settings: IP restrictions, two-factor authentication, SSO configuration

#### 5.18.3 System Maintenance

- Backup Management:
  - Automated backup scheduling
  - Backup verification
  - Restore procedures
  - Disaster recovery planning
- System Health Monitoring: Performance metrics, error logs, usage statistics
- Update Management: Version control, patch deployment, rollback procedures

#### **Advanced Administration**

- · Multi-tenant management console
- · Branch synchronization controls
- · Data archival policies
- · Compliance monitoring
- Custom workflow designer



## 5.19 Masters Module

#### Overview

The Masters module maintains all reference data that forms the foundation of the ERP system. It ensures data consistency, reduces redundancy, and provides centralized management of core configuration data.

## **Key Master Data Categories**

#### 5.19.1 Academic Masters

- · Class & Section Masters:
  - Grade/class definitions
  - Section naming conventions
  - Stream configurations
  - Capacity settings
  - Class teacher assignments
- Subject Masters: Subject codes, credit mappings, prerequisites
- Examination Types: Formative, summative, unit tests, practicals
- **Grade/Marking Schemes:** Percentage, CGPA, letter grades

#### 5.19.2 Administrative Masters

- Department Master: Academic and non-academic departments
- **Designation Master:** Teaching and non-teaching positions
- Leave Types: Casual, medical, earned, special leave categories
- **Document Types:** Required documents for various processes
- Location Masters: Buildings, floors, rooms, facilities

#### 5.19.3 Financial Masters





- Fee Categories: All fee types with tax applicability
- Payment Modes: Accepted payment methods
- Bank Masters: Bank account details for transactions
- Tax Configuration: GST rates, SAC codes
- Vendor Categories: Supplier classification

#### **5.19.4 Communication Masters**

- Message Templates: SMS, email, notification templates
- Holiday Calendar: National, regional, and institutional holidays
- Event Types: Academic and cultural event categories
- Notice Categories: Classification of notices and circulars

#### **Master Data Management Features**

- Version control for master data changes
- Approval workflow for critical masters
- · Import/export functionality
- · Data validation rules
- · Dependency checking before deletion
- · Multi-language support for masters



## 6. Technical Architecture & Infrastructure

## 6.1 Technology Stack

### Frontend Technologies

- Web Application: React.js 18+ with TypeScript, Redux for state management
- Mobile Apps: React Native for cross-platform iOS/Android apps
- **UI Framework:** Material-UI with custom theme, responsive design
- Progressive Web App: Offline capability, push notifications

## **Backend Technologies**

- API Layer: Node.js with Express.js, RESTful + GraphQL APIs
- Microservices: Docker containers with Kubernetes orchestration
- Message Queue: RabbitMQ for asynchronous processing
- Caching: Redis for session management and data caching

### **Database Architecture**

- Primary Database: PostgreSQL 14+ with partitioning for large tables
- NoSQL Store: MongoDB for unstructured data (documents, logs)
- Search Engine: Elasticsearch for full-text search
- Data Warehouse: Apache Spark for analytics processing

#### Infrastructure & DevOps

- Cloud Platform: AWS with multi-region deployment
- CI/CD Pipeline: Jenkins with automated testing and deployment









- Monitoring: Prometheus + Grafana for system monitoring
- Security: WAF, DDoS protection, SSL/TLS encryption



# 7. Human Resource Requirements

# 7.1 Development Team Structure

Phase	Role	Required Skills	Duration	
	Project Director	15+ years experience, EdTech background	12 months	
Leadership	QA Lead	Test automation, performance testing	12 months	
(Full Duration)		Senior Developers (4)	Full-stack, 5+ years experience	12 month
	Development (Core Team)	Mid-level Developers (6)	React, Node.js, 2-5 years experience	12 month
Junior Developers (4)		Fresh graduates with strong fundamentals	12 months	
	UI/UX Designers (2)	Educational interface design experience	8 months	
Specialized Roles	Database Administrator	PostgreSQL, performance tuning	10 months	
	DevOps Engineer	AWS, Kubernetes, CI/CD	10 months	



	Business Analysts (2)	Education domain knowledge	12 months
Support Roles	Technical Writers (2)	Documentation, training materials	Last 6 months

# 7.2 Post-Development Team (Month 13 onwards)

Department	Role	Count	Monthly Cost
	Sales Director	1	₹1,50,000
Calca & Markating	Regional Sales Managers	4	₹3,20,000
Sales & Marketing	Inside Sales Executives	6	₹1,80,000
	Marketing Team	3	₹1,50,000
	Implementation Managers	4	₹2,40,000
Customer Success	Training Specialists	4	₹1,60,000
	Support Engineers	6	₹1,80,000
Dovelopment	Maintenance Team	6	₹3,60,000
Development	Enhancement Team	4	₹2,40,000
Total Monthly Cost		38	₹19,80,000





# 8. Pricing Models & Revenue Projections

## 8.1 Subscription Model (SaaS)

## **Pricing Tiers**

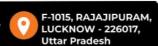
School Size	Students	Price per Student/Month	Minimum Monthly Fee	Included Features
Enterprise	5000+	₹15	₹75,000	All modules + Premium support
Professional	2000- 5000	₹18	₹36,000	All modules + Standard support
Standard	1000- 2000	₹20	₹20,000	Core modules + Email support
Starter	500-1000	₹25	₹12,500	Basic modules + Email support

#### **Additional Services**

- Premium Support: ₹15,000/month 24/7 phone support, dedicated account manager
- Custom Development: ₹1,500/hour Specific customizations
- Data Migration: ₹50,000 ₹2,00,000 based on complexity
- On-site Training: ₹25,000/day + travel expenses







## 8.2 One-Time License Model

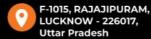
## **License Pricing**

School Size	Students	License Fee	Annual AMC (20%)	Implementation
Large	2000+	₹8,00,000	₹1,60,000	₹1,50,000
Medium	1000-2000	₹5,00,000	₹1,00,000	₹1,00,000
Small	500-1000	₹3,00,000	₹60,000	₹75,000
Starter	200-500	₹2,00,000	₹40,000	₹50,000

## **AMC Coverage**

- · Bug fixes and security patches
- Regulatory compliance updates
- Email and phone support during business hours
- · Remote troubleshooting
- · Annual health check and optimization





# 8.3 Revenue Projections

#### **18-Month Revenue Forecast**

Quarter	SaaS Customers	SaaS MRR	License Sales	Total Revenue
Q1 (Months 13-15)	5 schools	₹3,50,000	3 licenses	₹21,50,000
Q2 (Months 16-18)	15 schools	₹10,50,000	5 licenses	₹51,50,000
Q3 (Months 19-21)	30 schools	₹21,00,000	8 licenses	₹95,00,000
Q4 (Months 22-24)	50 schools	₹35,00,000	10 licenses	₹1,40,00,000
Total	-	-	-	₹3,08,00,000

## 5-Year Revenue Projection

- Year 1: ₹3.08 Crores (Post-development)
- Year 2: ₹8.5 Crores (150 SaaS + 40 licenses)
- Year 3: ₹15 Crores (300 SaaS + 60 licenses)
- Year 4: ₹24 Crores (500 SaaS + 80 licenses)
- Year 5: ₹35 Crores (750 SaaS + 100 licenses)



# 9. Marketing & Sales Strategy

## 9.1 Go-to-Market Strategy

## **Target Market Segmentation**

- Tier 1 Cities: Premium schools with high technology adoption
- Tier 2/3 Cities: Growing schools seeking affordable solutions
- School Chains: Multi-branch educational groups
- New Schools: Greenfield projects starting with digital-first approach

## **Marketing Channels**

Channel	Strategy	Budget Allocation
Digital Marketing	SEO, SEM, social media, content marketing	35%
Events & Conferences	Education expos, principal meets, demos	25%
Partner Network	Resellers, consultants, system integrators	20%
Direct Sales	Field sales team, relationship building	15%
Referral Program	Customer referrals, testimonials	5%



## 9.2 Sales Process

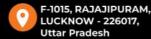
## **Sales Funnel Stages**

- 1. Lead Generation: Inbound marketing, outbound calls, partner referrals
- 2. Qualification: BANT criteria, needs assessment, decision-maker identification
- 3. Demo & Proposal: Customized demos, ROI calculation, proposal submission
- 4. **Negotiation:** Pricing discussions, terms finalization, contract drafting
- 5. **Closure:** Contract signing, payment collection, handover to implementation
- 6. Onboarding: Project kickoff, training schedule, go-live planning

#### Sales Enablement Tools

- · CRM system for lead and opportunity tracking
- · Demo environments with sample data
- ROI calculator and comparison sheets
- · Case studies and success stories
- Proposal templates and pricing tools







# 10. Risk Analysis & Mitigation

## 10.1 Risk Assessment Matrix

Technology			
Technology obsolescence	High	Medium	Continuous technology updates, modular architecture
Data security breach	Very High	Low	Security audits, encryption, compliance certifications
Scalability issues	High	Medium	Cloud architecture, load testing, auto-scaling
Competition from established players	High	High	Differentiation through features, competitive pricing
Slow adoption rate	High	Medium	Freemium model, pilot programs, testimonials
Economic downturn	Medium	Medium	Flexible pricing, essential features focus
Key personnel attrition	High	Medium	Retention programs, knowledge documentation
Project delays	Medium	Medium	Agile methodology, buffer time, phase-wise delivery
	Scalability issues  Competition from established players  Slow adoption rate  Economic downturn  Key personnel attrition	Data security breach High  Scalability issues High  Competition from established players  Slow adoption rate High  Economic downturn  Medium  Key personnel attrition High	Data security breach High  Scalability issues High  Medium  Competition from established players  High  High  High  Slow adoption rate High  Medium  Economic downturn  Medium  Medium  Key personnel attrition  High  Medium



	Quality issues	High	Low	Comprehensive testing, beta programs, feedback loops
Financial	Cash flow problems	High	Medium	Staged funding, revenue diversification
Risks	Customer payment defaults	Medium	Medium	Advance payments, credit checks, legal agreements

## **10.2 Business Continuity Plan**

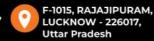
## **Disaster Recovery**

- Data Backup: Real-time replication across regions, daily backups, 30-day retention
- System Redundancy: Active-active deployment, automatic failover
- Recovery Objectives: RTO: 4 hours, RPO: 1 hour
- Testing Schedule: Quarterly DR drills, annual full recovery test

## **Crisis Management**

- Communication Plan: Customer notification procedures, status page
- Escalation Matrix: Clear escalation paths, decision-making authority
- Vendor Support: SLAs with critical vendors, alternative suppliers
- Insurance Coverage: Cyber liability, professional indemnity, business interruption





# 11. ROI Analysis & Break-even Projections

## 11.1 Investment vs. Returns

## 5-Year Financial Projection

Year	Investment/Costs	Revenue	Net Profit/Loss	Cumulative
Year 0 (Development)	₹3,20,00,000	₹0	(₹3,20,00,000)	(₹3,20,00,000)
Year 1	₹2,40,00,000	₹3,08,00,000	₹68,00,000	(₹2,52,00,000)
Year 2	₹3,50,00,000	₹8,50,00,000	₹5,00,00,000	₹2,48,00,000
Year 3	₹5,00,00,000	₹15,00,00,000	₹10,00,00,000	₹12,48,00,000
Year 4	₹7,00,00,000	₹24,00,00,000	₹17,00,00,000	₹29,48,00,000
Year 5	₹9,00,00,000	₹35,00,00,000	₹26,00,00,000	₹55,48,00,000



## 11.2 Break-even Analysis

## **Key Metrics**

• Break-even Point: Month 20 (8 months after launch)

• Payback Period: 2.4 years

• IRR (5 years): 68%

• NPV (12% discount): ₹28.5 Crores

### **Assumptions**

• Customer acquisition cost: ₹50,000 per school

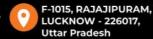
• Customer lifetime value: ₹15,00,000 (SaaS model)

Annual churn rate: 8%

Operating margin: 40% after Year 2

• Market growth rate: 20% annually





# 12. Implementation & Support Framework

## 12.1 Implementation Methodology

## **Phase-wise Implementation Process**

#### Phase 1: Project Initiation (Week 1-2)

- Project kickoff meeting with stakeholders
- · Implementation team assignment
- · Infrastructure assessment and planning
- Data migration strategy finalization
- Training schedule preparation

## Phase 2: System Setup (Week 3-4)

- Server provisioning and configuration
- · Organization structure setup
- Master data configuration
- User account creation
- Integration setup (SMS, payment, etc.)

#### Phase 3: Data Migration (Week 5-6)

- · Legacy data extraction and cleaning
- · Data mapping and transformation
- · Pilot data migration
- Data validation and reconciliation







Full data migration execution

### Phase 4: Training & Testing (Week 7-8)

- · Administrator training
- · End-user training sessions
- · User acceptance testing
- Bug fixes and adjustments
- · Documentation handover

### Phase 5: Go-Live (Week 9-10)

- Pilot go-live with selected modules
- · Performance monitoring
- Issue resolution
- · Full system go-live
- Post-implementation support

## **12.2 Support Structure**

## **Support Tiers**

Tier	Coverage	Response Time	Resolution Time
Premium	24/7 phone, email, chat	15 minutes	4 hours
Standard	Business hours support	2 hours	24 hours
Basic	Email support only	24 hours	48 hours



## **Support Services**

- Help Desk: Ticketing system with priority management
- Knowledge Base: Comprehensive documentation, FAQs, video tutorials
- · Remote Support: Screen sharing and remote troubleshooting
- On-site Support: For critical issues (additional charges)
- Training Programs: Regular webinars, certification courses
- User Community: Forums, user groups, best practice sharing

## 12.3 Success Metrics

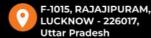
## Implementation Success Criteria

- System Uptime: 99.9% availability SLA
- User Adoption: 80% active users within 3 months
- Data Accuracy: 99.5% data migration accuracy
- Training Completion: 90% staff trained before go-live
- Customer Satisfaction: CSAT score above 4.5/5

#### **Ongoing Performance Monitoring**

- Monthly usage analytics and reports
- Quarterly business review meetings
- Annual system health checks
- · Continuous improvement recommendations
- Feature utilization analysis





## **Project Summary**

edu - Al represents a comprehensive investment opportunity in the rapidly growing educational technology sector. With a total development investment of ₹3.2 Crores over 12 months, the project is positioned to capture a significant share of the ₹2,800 Crore school ERP market in India.

The dual revenue model (SaaS and Perpetual License) ensures market flexibility, while the projected break-even at Month 20 and 68% IRR over 5 years demonstrate strong financial viability. The comprehensive feature set covering all aspects of school management, combined with multi-branch capabilities, positions edu - AI as a market leader.

Success factors include experienced team composition, proven technology stack, comprehensive implementation methodology, and robust support framework. With proper execution, edu - AI is projected to achieve ₹35 Crores in annual revenue by Year 5, establishing Shivakarma Infotech Solutions as a major player in the educational software market.

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