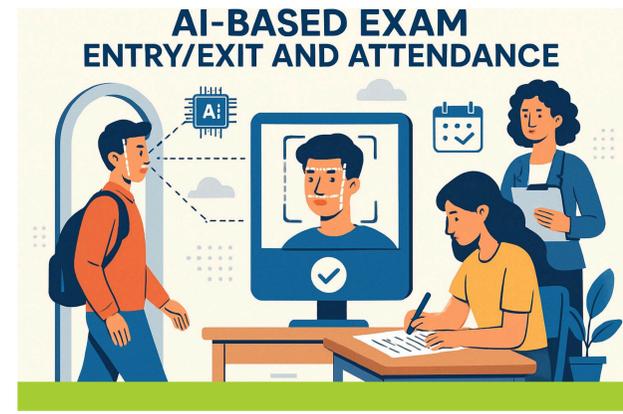


# Exam Pro Plugin for Modern Educational Institutions

We built a comprehensive Exam Pro Plugin designed specifically for educational institutions seeking to modernize their examination processes. This intelligent system utilizes advanced proctoring technology, automated grading, and real-time monitoring to streamline and secure online examinations — ensuring academic integrity without compromising user experience.

## AI based exam all entry/exit and attendance



## ADVANCED EXAM MONITORING WITH REAL-TIME PHOTO CAPTURE



## Advance exam monitoring with realtime photo capture

## Realtime advance proctoring system to block any misuse



## REAL-TIME ADVANCED PROCTORING SYSTEM TO BLOCK ANY MISUSE

LABRYS

## Comprehensive CMS solution for Admin to upload questions, exam etc

## COMPREHENSIVE CMS SOLUTION FOR ADMIN TO UPLOAD QUESTIONS, EXAMS



## Advance evaluation solution for evaluators



## EXAM EVALUATION

## CUSTOM CERTIFICATE GENERATION BASED ON CLIENT'S NEED



## Custom certificate generation based on client's need

# Client Overview

Client	A forward-thinking educational institution committed to digital transformation and academic excellence
Use Case	Automating online examination processes through AI-powered proctoring, automated assessment, and comprehensive exam management
Location	India
End Users	Students, Faculty Members, Examination Controllers, Administrative Staff

## Problem Statement

Traditional examination systems in educational institutions were:

- **Time-consuming and resource-intensive** - Manual invigilation and paper-based processes
- **Prone to academic dishonesty** - Limited monitoring capabilities during remote examinations
- **Dependent on manual grading** - Leading to delays and potential human errors
- **Lacking real-time insights** - No centralized monitoring or instant result generation
- **Inflexible scheduling** - Difficulty in managing multiple exam sessions simultaneously

The institution required a smart, secure, and scalable examination solution that could be reliably deployed across various departments and handle diverse assessment formats.

## System Workflow

Initial Setup	<ul style="list-style-type: none"><li>• <b>Exam Types:</b> Define categories such as Objective, Descriptive, Mixed Format, Practical</li><li>• <b>Rules:</b> Configure examination policies — duration, attempt limits, security settings, grading criteria</li><li>• <b>Integration:</b> Connect with existing LMS and student information systems</li></ul>
AI Proctoring Configuration	<ul style="list-style-type: none"><li>• Setup includes proctoring parameters like face detection, tab switching alerts, multiple person detection</li><li>• Real-time monitoring using advanced computer vision algorithms</li><li>• Seamless integration with web browsers and mobile applications</li></ul>
Exam Creation & Management	<p>Configure the following:</p> <ul style="list-style-type: none"><li>• Exam Details: Subject, Duration, Total Marks, Pass Criteria</li><li>• Question Bank: Multiple choice, descriptive, fill-in-the-blanks, multimedia questions</li><li>• Student Assignment: Batch-wise or individual exam scheduling</li><li>• Security Settings: Randomization, time limits, browser restrictions</li><li>• Grading Scheme: Automated scoring for objective questions, rubric-based assessment for descriptive</li></ul>
Live Examination Monitoring	<ul style="list-style-type: none"><li>• AI proctoring system monitors students in real-time</li><li>• The system generates alerts for:<ul style="list-style-type: none"><li>• <b>Suspicious Behavior</b> - Face not visible, multiple persons detected</li><li>• <b>Technical Violations</b> - Tab switching, copy-paste attempts</li><li>• <b>Connection Issues</b> - Internet disruption, browser crashes</li><li>• <b>Time Management</b> - Automatic submission warnings</li></ul></li></ul>
Results & Analytics Dashboard	<ul style="list-style-type: none"><li>• Web-based dashboard with real-time exam progress tracking</li><li>• Comprehensive result analysis with statistical insights</li><li>• Automated report generation with filters (subject, batch, performance metrics)</li></ul>

## Tech Stack Overview

Frontend	React.js (Student Exam Interface & Admin Portal)
Backend	Node.js with Express.js
Database	MongoDB with Redis for session management
AI Engine	Python-based computer vision and machine learning models
Proctoring Technology	WebRTC for real-time monitoring
Security	JWT authentication, encrypted data transmission
Deployment	Cloud-native architecture with auto-scaling capabilities

## Core Features Delivered

- AI-powered proctoring with real-time behavior analysis
- Intelligent question randomization and adaptive testing
- Automated grading for objective assessments
- Multi-format question support (MCQ, descriptive, multimedia)
- Real-time exam monitoring and alert system
- Comprehensive analytics and performance insights
- Secure browser environment with lockdown features
- Mobile-responsive design for accessibility
- Integration capabilities with existing educational systems
- FR Base Login

## Deployed Across Multiple Locations

This solution has been successfully implemented in:

- Private and government colleges
- Professional certification bodies
- Online learning platforms
- Corporate training organizations
- Competitive examination centers

Its modular architecture allows us to deploy and configure the system for institutions of varying sizes and requirements, including multi-campus and international setups.

## Key Results

- 85% reduction in examination administration time
- 99.5% uptime during critical examination periods
- Zero tolerance for academic malpractice with AI monitoring
- Instant result generation for objective assessments
- 50% cost reduction in examination operations
- Seamless experience across devices and platforms
- Enhanced data security and compliance with educational standards

