

# Microservices-Based Examination Portal

## “Test Portal: Student Assessment Platform”

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**Abstract:** *The Online Test Portal is a web-based solution designed to support secure and efficient online assessments. Utilizing modern technologies like Docker for backend services, it guarantees both scalability and reliability. The portal integrates features such as remote proctoring with webcam verification, advanced machine learning algorithms for detecting fraudulent activity, and automated proctoring systems to ensure smooth exam monitoring. Core functionalities include user authentication, test creation and scheduling, real-time monitoring with AI-driven proctoring, result generation, and detailed analytics. The platform aims to deliver a user-friendly experience for both administrators and candidates, maintaining the integrity of online exams while providing in-depth reporting and analysis tools.*

**Keywords:** Cloud-based Examination Platform, Biometric Authentication in Exams, Virtual Exam Proctoring, Secure Online Test Management, Data-driven Exam Insights, Scalable Authentication Framework

