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Course	<b>SE LAB</b>
Class and batch	TE Computer Science and Engineering - Batch _A4
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## 1. Project Overview

Field	Details
Project Title	EduFlex: Learning Management System
Team Members	Tanishq Nagdev, Pratham Satyawan Masurkar, Aditya Choudhary
Start Date	28-08-2025
Expected End Date	07- 11-2025
Project Description	Web-based LMS for universities enabling teachers and students to manage courses, assignments, grading, quiz, materials, and progress. Focus on usability, core features, and secure role-based access.

## 2. Risk Management Objectives

The objective of this plan is to identify, assess, and mitigate potential risks that could negatively impact the project's scope, schedule, cost, or quality.

It ensures proactive management to improve the likelihood of project success.

## 3. Risk Management Approach

- Risks will be identified throughout the project life cycle.



- Each risk will be evaluated for Probability (P) and Impact (I) using qualitative scales (Low / Medium / High).
- A Risk Score ( $R = P \times I$ ) will help prioritize risks.
- Mitigation and contingency actions will be assigned to responsible team members.
- The risk register will be reviewed at each project milestone.

## 4. Risk Assessment Matrix

Impact ↓ / Probability →	Low (1)	Medium (2)	High (3)
High (3)	Moderate	Serious	Critical
Medium (2)	Minor	Moderate	Serious
Low (1)	Negligible	Minor	Moderate

## 5. Risk Register

Risk No	Risk Description	Category	Probability (P)	Impact (I)	Risk Score	Mitigation Strategy	Contingency Plan	Status
R1	Incomplete or changing requirements	Technical /Process	High (3)	High (3)	9	Frequent client/faculty meetings; maintain clear documentation	Allocate extra time for changes; Focus on core features	Open
R2	Delay in API/backend integration	Technical	Medium (2)	High (3)	6	Early testing; Use mock/stub APIs; Peer code reviews	Stub/Mock during development, final testing when ready	Open



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R3	Key team member unavailable (illness, leave)	Organizational	Medium (2)	Medium (2)	4	Cross-training; shared documentation; regular backups	Redistribute workload; Seek backup resources	Open
R4	Data loss or corruption	Security/Infra	Medium (2)	High (3)	6	Regular database backups; atomic submissions ; validation checks	Restore from latest backup; Manual corrections if needed	Open
R5	Cloud/server deployment fails or is delayed	Infrastructure	Medium (2)	High (3)	6	Early cloud setup; local fallback; monitor free-tier limits	Run locally if needed; seek alternate cloud provider	Open
R6	Security breach or unauthorized access	Security	Low (1)	High (3)	3	bcrypt password hashes; JWT auth; HTTPS; regular audits	Immediate lockout; restore backup; patch vulnerabilities	Monitoring
R7	Notification/email feature fails	Functional	Medium (2)	Medium (2)	4	Automated dashboard notices; Test all notification flows	Use manual dashboard alerts; notify via alternate method	Open
R8	extra features requested	Management	Medium (2)	High (3)	6	Strict requirement freeze; formalize change control	Defer non-core features to next release/phase	Open



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R9	Hardware/internet issues on developer machines	Infrastructure	Medium (2)	Medium (2)	4	Frequent code and DB backups; use cloud if possible	Shift development to another machine; restore checkpoint	Open
R10	Performance bottlenecks (slow response, load)	Performance	Medium (2)	Medium (2)	4	Optimize code & queries; test under load; prioritize basics	Scale down user load, optimize later, monitor system	Open
R11	Inadequate testing coverage	Quality	Medium (2)	Medium (2)	4	Peer code review; maintain test sheets; automate basic tests	Extend testing timeline; prioritize bug fixes	Open

## 6. Risk Mitigation Strategies

- Avoidance:** Use only well-tested MERN stack components.
- Reduction:** Code reviews, documentation, automated backups, and regular testing.
- Transfer:** Utilize managed cloud services for infrastructure if possible.
- Acceptance:** Minor risks (e.g., notification issues) accepted if mitigated manually.
- Monitoring:** Weekly review of risk register at meetings/milestones.

## 7. Monitoring and Reporting

- Risk review meetings:** Weekly or Bi-weekly
- Metrics tracked:** Number & severity of open risks, effectiveness of mitigation



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- **Reporting:** Project Manager updates stakeholders through Risk Status Report at each milestone.

<b>References</b>	<p><a href="#">Analysis of risks in a Learning Management System</a></p> <p><a href="#">moodle docs</a></p>
<b>CONCLUSION:</b>	<p>This risk mitigation plan helps the EduFlex LMS team identify and address problems before they grow. By setting clear strategies and checking risks regularly, the team can avoid major issues with project scope, timing, or quality. Using proven methods and good practices keeps the project on track and makes it easier to respond to new challenges. Overall, this approach increases the chances of launching EduFlex on time and delivering a reliable system for users.</p>