# Risk Table

Student Management System

| **Risk** | **Probability (P)** | **Impact (C)** | **Risk Exposure (RE = P × C)** | **RMMM (Mitigation, Monitoring, Management)** |
| --- | --- | --- | --- | --- |
| **Security Breach** (Unauthorized access to student data) | 0.7 | 5 | 3.5 | **Mitigation:** Implement strong authentication, RBAC, encryption. **Monitoring:** Log access attempts, detect anomalies. **Management:** Have a rollback mechanism and security patch plans. |
| **Data Loss** (Accidental deletion of student records) | 0.5 | 5 | 2.5 | **Mitigation:** Regular database backups, version control. **Monitoring:** Monitor database change logs. **Management:** Implement data recovery procedures. |
| **API Failure** (Google Calendar API not working) | 0.6 | 4 | 2.4 | **Mitigation:** Implement retries, use a backup API. **Monitoring:** Track API response times. **Management:** Alert system for API downtime, provide manual scheduling option. |
| **Performance Issues** (Slow response time for student records) | 0.6 | 3 | 1.8 | **Mitigation:** Optimize database queries, caching, indexing. **Monitoring:** Track system load and response times. **Management:** Implement auto-scaling or caching layers. |
| **Version Control Issues** (Mistakes in Git leading to loss of code) | 0.4 | 3 | 1.2 | **Mitigation:** Use branches, commit frequently, code reviews. **Monitoring:** Monitor commit history and backups. **Management:** Restore from last working commit, document recovery steps. |
| **UI/UX Issues** (Poor usability for students/teachers) | 0.5 | 2 | 1.0 | **Mitigation:** Conduct usability testing, feedback sessions. **Monitoring:** Track user complaints, conduct surveys. **Management:** Deploy UI/UX improvements incrementally. |