**Risk Assessment: New Web Application Project**

**Project Title:** Online Story Management Platform  
**Date:** October 17, 2025  
**Assessor:** Dr. [Your Name], Department of Computer Science

**1. Project Overview**

The project involves developing a responsive web application that enables users to create, manage, and share digital stories. The system will use a serverless architecture leveraging AWS Lambda, API Gateway, and DynamoDB for scalability and cost efficiency.

**2. Objectives of the Risk Assessment**

* Identify potential risks in technical design, security, compliance, and operations.
* Evaluate likelihood and impact to prioritize mitigation.
* Define mitigation and contingency plans.

**3. Risk Matrix**

| **Category** | **Risk Description** | **Likelihood** | **Impact** | **Risk Level** | **Mitigation / Control Measures** |
| --- | --- | --- | --- | --- | --- |
| **Technical** | Integration failure between front-end and AWS backend | Medium | High | **High** | Conduct early integration testing; use Postman for API validation before deployment. |
| **Security** | Unauthorized access to API endpoints | High | High | **Critical** | Enforce IAM role-based access, API key restrictions, and JWT authentication. |
| **Data** | Data loss or corruption in DynamoDB | Low | High | **Medium** | Enable backups and implement versioning; use DynamoDB Streams for recovery. |
| **Compliance** | Violation of data privacy (GDPR/FERPA) | Medium | High | **High** | Anonymize user data and include user consent for data storage. |
| **Operational** | Deployment errors due to CI/CD misconfiguration | Medium | Medium | **Medium** | Automate testing pipeline with GitHub Actions; require manual approval before production deploy. |
| **Performance** | High latency during peak usage | Low | Medium | **Low** | Use CloudFront caching and DynamoDB on-demand mode. |
| **User Adoption** | Low engagement due to poor UX | Medium | Medium | **Medium** | Conduct usability testing and gather feedback during beta phase. |