

COMP9900 Assignment 2 - Advanced Web Development & Security

Due Date: 2025-12-15

Duration: 3 weeks

Estimated Hours: 15 hours

Description:

This assignment focuses on advanced web development concepts including security implementation, performance optimization, and deployment strategies using React, Django, and cloud services.

Tasks include:

1. Implement advanced authentication (OAuth, JWT)
2. Add real-time features using WebSockets
3. Implement comprehensive security measures
4. Optimize application performance
5. Deploy to cloud platform (AWS/Azure)
6. Implement monitoring and logging
7. Write security test cases

Technical Requirements:

- Use Redis for caching
- Implement rate limiting
- Add HTTPS/SSL configuration
- Database optimization
- API documentation with Swagger
- Container deployment with Docker

Deliverables:

- Enhanced source code repository
- Security audit report

- Performance benchmarking report
- Deployment documentation
- Live production demo

Grading Criteria:

- Security implementation (35%)
- Performance optimization (25%)
- Code quality & architecture (25%)
- Documentation & deployment (15%)