

CS 4300/5300 Software Engineering

Sprint 2 Requirements

1 Sprint 2 Objectives

| Requirement | Points |
|--|----------------|
| Project in GitHub | 10 pts |
| Tests implemented for new features | 10 pts |
| 80% Test coverage metrics | 10 pts |
| CI Pipeline: | |
| AI Code Review using OpenAI Platform (each Pull Request) | 5 pts |
| Running automated tests (each commit) | 2.5 pts |
| Reports test coverage metrics in console (each commit) | 2.5 pts |
| Deployed to a production environment | 10 pts |
| NEW: | |
| CD Pipeline that runs when code is merged into main | 50 pts |
| Total | 100 pts |

2 Detailed Requirements

2.1 Project in GitHub (10 pts)

Your project must be hosted in a GitHub repository with proper structure and organization.

2.2 Tests Implemented for New Features (10 pts)

All new features developed during this sprint must have corresponding unit and/or integration tests.

2.3 80% Test Coverage Metrics (10 pts)

Your test suite must achieve at least 80% code coverage.

2.4 CI Pipeline (10 pts total)

Your continuous integration pipeline must include:

- **AI Code Review (5 pts):** Using OpenAI Platform for each Pull Request
- **Automated Tests (2.5 pts):** Running automated tests for each commit
- **Coverage Reports (2.5 pts):** Reports test coverage metrics in console for each commit

2.5 Production Deployment (10 pts)

Your application must be deployed to a production environment and accessible via URL.

2.6 **NEW:** CD Pipeline (50 pts)

Code must continually be deployed to production environment using GitHub Actions. When code is merged into the main branch, the CD pipeline should automatically deploy the updated application to your production environment.

See the Common Sprint Requirements document for planning, development, demo, and submission requirements.