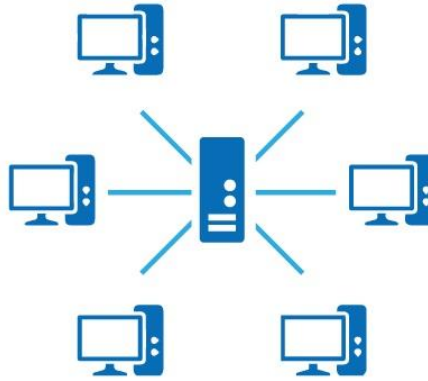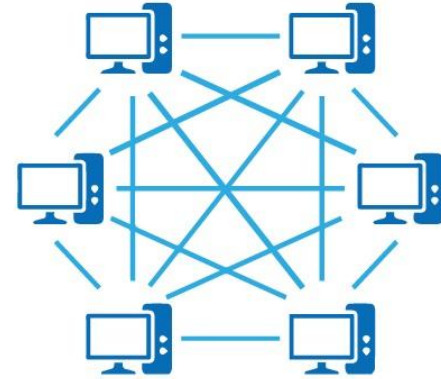# GitTor - Testing

Isaac, Cameron, Jayson, Phu, Seth, Tyler

Context

A **Server** based Network

A **Peer-to-Peer** based Network

Unit Testing

GCC Code Coverage Report

- Isolated dynamic analysis

- Integrated into our automated build pipeline

- Simple, readable test syntax

Integration Testing

- Controller methods integrate all other components

- Web API tests use the JUnit framework

- A new mock database is automatically created in memory for testing

- 94% code coverage, 100% of methods

api

Element	Missed Instructions	Cov.
api.services.storage		89%
api.mapper		84%
api.services		96%
api.exceptions		81%
api		37%
api.configs		98%
api.controllers.users		100%
api.components		100%
api.controllers		100%
api.entities		100%
Total	130 of 2,408	94%

Systems Testing

- Must hit all components
  - UI, API, and DB
- Tests full functionality of a feature
- Cypress E2E
  - Starts all components of the app
  - Runs a full browser
  - Interacts with whatever a user would see
  - Mimic user inputs to test user scenarios

Regression Testing

- Automated CI/CD Pipeline with Github Actions

- Test run automatically on every push to main and PR

- All test must pass before PR approval

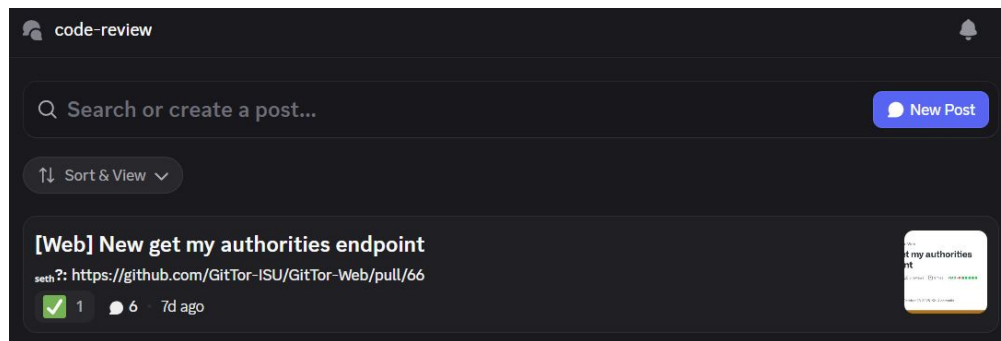- Generates coverage reports and deploys to GitHub Pages
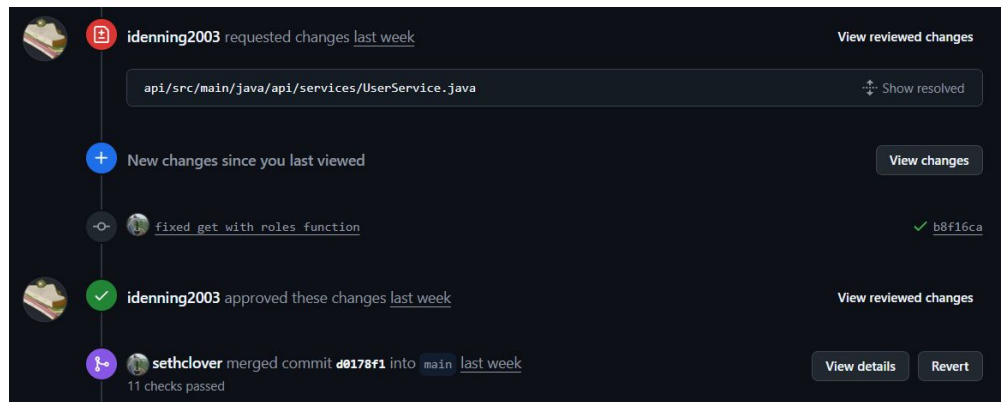
Code Reviews

Kanban
- Reviews from another member before completion

- Discuss changes needed before the task can be completed

- Take action based on discussion

Discord
- Increased visibility of new reviews

Question?

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