

Automated Deployment with Ansible

Scenario: Now that infra exists, you to automate app deployment across multiple servers.

Requirements

1. Server Setup

- Create an **inventory file** with at least 2 groups:
 - web (app servers)
 - db (database server).

2. Roles & Playbooks

- roles/web → Install Nginx + deploy frontend.
- roles/backend → Install Python + deploy Flask app.
- roles/db → Install MySQL & set up schema.
- Use **Jinja2 templates** for config files.

3. Secrets & Handlers

- Store DB passwords in **Ansible Vault**.
- Add handlers (restart services on config change).

4. CI/CD Integration

- Configure **GitHub Actions**:
 - On push to main, run playbook against dev servers.
 - On approved PR, deploy to staging.

5. Documentation

- Create docs/ansible-deployment.md with full deployment guide