

MLOps Deployment from DEV to PROD – Lab Report

Participants

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Objective

The goal of this exercise was to simulate the process of deploying a project from a **development environment (DEV)** to a **production environment (PRD)** using Git and environment management practices. Each participant played both roles—**Developer** and **Gatekeeper**—to ensure hands-on experience from both perspectives.

Step-by-Step Process

Step 1: Form Pairs

Done

Step 1: Developer Roles Done

1. Project Setup

- Created a virtual environment
- Activate new environment
- Installed required packages using pip install

```
PS C:\Users\NOURA\Desktop\ironhack\week6\day2> python -m venv venv
PS C:\Users\NOURA\Desktop\ironhack\week6\day2> .\venv\Scripts\activate
```

```
(venv) PS C:\Users\NOURA\Desktop\ironhack\week6\day2> pip install pandas scikit-learn
```

2. Environment Configuration

```
(venv) PS C:\Users\NOURA\Desktop\ironhack\week6\day2> pip freeze > requirements.txt
(venv) PS C:\Users\NOURA\Desktop\ironhack\week6\day2>
```

3. Git Initialization and Remote Setup:

- ✓ Initialized git
- ✓ added files (excluded venv)
- ✓ committed
- ✓ pushed to GitHub
- ✓ Pull Request Creation

Step 2: Gatekeeper Roles Done

1. Code Review

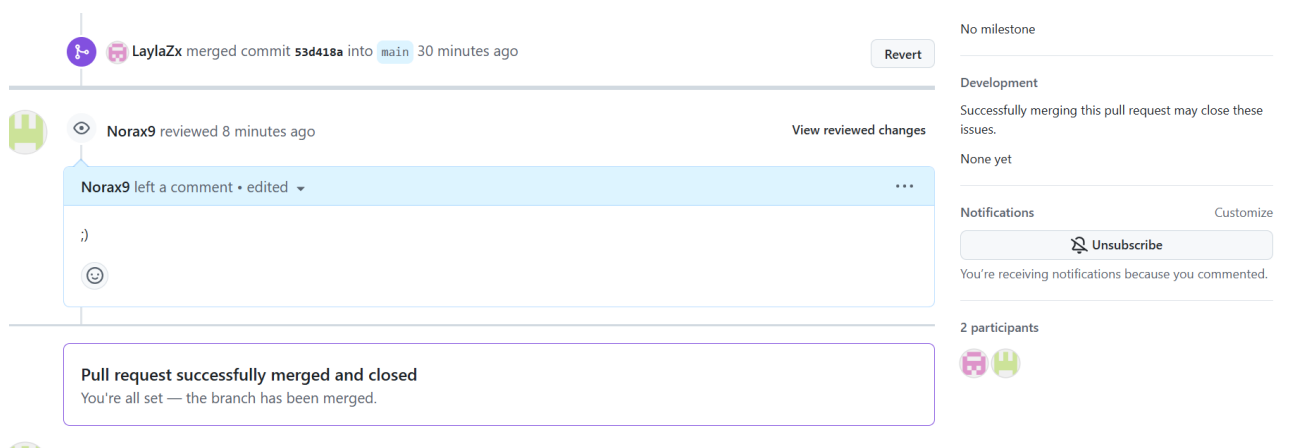
- Reviewed the PR, checked for code quality and structure.
- Approved and merged the PR if everything looked good.

2. Environment Setup

- Cloned the repo and created a new virtual environment.
- Installed all dependencies from `requirements.txt`:

3. Execution

- Ran the project locally to verify it worked without errors.



Challenge

Took time to properly review GitHub PR process

Step 4: Swap Roles and Repeat Done