MLOps Deployment - Developer & Gatekeeper Role Report

📅 **Date:** 2/19/2025
🏫 **Bootcamp:** Ironhack Bootcamp: Data Science and Machine Learning

Team Members:

- **Developer (First Round):** Ginosca Alejandro Dávila
- **Gatekeeper (First Round):** Natanael

Objective:

The goal of this exercise was to practice **MLOps deployment workflow**, including **version control, collaboration using GitHub, and reviewing each other's work** in a structured development cycle.

1️⃣ First Round - Developer Role (Ginosca)

Tasks Completed:

✅ **Created the repository on GitHub**: lab-mlops-deploy-prod-to-dev
✅ **Set up the project folder** with the necessary files:

- `quadratic_equation_solver_project/`
- `requirements.txt`
- `.gitignore`
- `README.md`
    ✅ **Created a virtual environment (`venv`) and installed dependencies**
    ✅ **Initialized a Git repository and pushed the project to GitHub**
    ✅ **Created a new branch** `dev-branch` and pushed it
    ✅ **Added an extra file**: `"quadratic_equation_solver (original).ipynb"` to `dev-branch`
    ✅ **Created a Pull Request (PR)** from `dev-branch` to `main`

Challenges Faced & Solutions:

Challenge	Solution
At first, I was unsure if I needed to push the `venv/` folder to GitHub.	I checked the instructions and confirmed that `venv/` should be excluded using `.gitignore`.
When adding files to Git, there was a warning about **"LF will be replaced by CRLF"**.	This is a common line-ending issue on Windows but does not affect functionality. It was ignored.
The Ironhack platform required a **Pull Request URL**, but initially, I only submitted the repository link.	Added an additional file and re-created the PR, then submitted the correct PR URL.

---

2 First Round - Gatekeeper Role (Natanael)

Tasks Completed:

✅ **Reviewed the Pull Request** and confirmed all files were correctly included
✅ **Merged the PR into `main`**
✅ **Pulled the latest changes from the remote repository**
✅ **Set up the virtual environment (`venv`) and installed dependencies**
✅ **Ran the project locally and tested functionality**
✅ **Provided feedback on the setup and testing**

Challenges Faced & Solutions:

Challenge	Solution
No PR was created at first since `dev-branch` and `main` were identical.	Instead of merging, we continued with the Gatekeeper's setup and testing directly.
Dependencies took time to install due to `pip` downloading packages.	Ensured `requirements.txt` had the correct dependencies to avoid issues.

| Initially, there were no meaningful changes to justify a PR. | The developer added a small update (`quadratic_equation_solver (original).ipynb`) to allow a PR to be created. |

---

③ Next Steps - Swapping Roles

We will now swap roles and repeat the process so that:

- **Natanael becomes the Developer**
- **Ginosca becomes the Gatekeeper**

This will ensure both of us experience both roles.

Final Thoughts:

This exercise helped reinforce **GitHub best practices, version control, and structured code review**.

Key Takeaways:

✔ **Clear communication** is essential for smooth collaboration.
✔ Using **branches and `.gitignore`** properly prevents unnecessary files from being pushed.
✔ **Testing the setup after pulling** is crucial to validate reproducibility.

🚀 **We will now repeat the process with the roles swapped!**