Lab Report: MLOps Deployment from PROD to DEV

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Developer Role: Code Preparation and Push

1. Project Setup

- Initialized existing project directory.
- Added all source code files to the project folder.

2. Virtual Environment Setup

• Created a Python virtual environment using:

"python -m venv venv"

- Activated the virtual environment.
- Installed all necessary packages and dependencies.
- Generated the requirements.txt file with:

"pip freeze > requirements.txt"

3. Git Repository Initialization

Initialized a Git repository:

"git init"

- Added all project files to Git, excluding the venv/ folder:
- Made the initial commit:

4. Push to Remote Repository

- Linked the local repository to a remote:
- Pushed the code to the main branch:

5. Creating a Pull Request

- Create new branch and do changes
- Opened a pull request on the remote repository.
- Provided a title and description outlining the changes made.

Gatekeeper Role : Review, Merge, and Testing

1. Pull Request Review

- The gatekeeper reviewed the pull request for:
 - Code correctness
 - o Proper structure and formatting

- o Completeness of the implementation
- After confirming the code was correct, the PR was approved and merged into the main branch.

2. Pulling the Latest Changes

• Cloned or navigated to the local copy of the project.

"git pull origin main"

3. Environment Setup

Created a new virtual environment:

"python -m venv venv"

• Activated the environment and installed dependencies:

"pip install -r requirements.txt"

4. Project Execution and Feedback

• Ran the project to verify it executed without errors.

Conclusion

This workflow demonstrates a complete code collaboration cycle involving version control, remote repository usage, virtual environment setup, and peer review. Both developer and gatekeeper roles were executed successfully, ensuring code quality and teamwork in a professional development setting.