



Beginner Exercise: Build a GitHub Actions Pipeline for Python 3.9 Setup



Goal

Create a **GitHub Actions pipeline** based on the following requirements, which includes setting up Python 3.9, installing dependencies, and checking the Python version.



Requirements

1. Trigger: Manual Workflow

- The pipeline must **only run manually** using the `workflow_dispatch` trigger, meaning you will manually start the workflow from the GitHub web interface.

2. Job

- You need **one job** that runs on an **Ubuntu virtual machine** (`ubuntu-latest`).

3. Steps

- Step 1:** Use the `actions/checkout@v4` action to **checkout** the repository code.
 - Step 2:** Use the `actions/setup-python@v4` action to **set up Python 3.9**.
 - Step 3:** Use the `pip install -r requirements.txt` command to **install dependencies**.
 - Step 4:** Run commands to:
 - Print the installed **Python version**.
 - Display the **full version information** of Python.
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Commands and Actions to Use

Here are the **specific actions** and **commands** you need to use for each step:

1. Checkout Repository Code

Use `actions/checkout@v4` to get the repository code into the GitHub runner.

```
- name: Checkout code
  uses: actions/checkout@v4
```

2. Set up Python 3.9

Use `actions/setup-python@v4` to install **Python 3.9**.

```
- name: Set up Python 3.9
  uses: actions/setup-python@v4
  with:
    python-version: '3.9'
```

3. Install Dependencies

Use the following command to install dependencies from the `requirements.txt` file.

```
- name: Install dependencies
  run: pip install -r requirements.txt
```

4. Check Python Version

Use these commands to print out the Python version and display full version details.

```
- name: Check Python version
  run: |
    python --version # Print the Python version
    python -
c "import sys; print(f'Full version: {sys.version}')" # Print full version details
```