

Practical Exercise 03 - Working with Windows and Ubuntu Runners

Exercise Description

In this practical exercise, our goal is to explore different possibilities for setting runners for our workflows.

Here are the instructions for the exercise:

- Create a file named `03-workflow-runners.yaml` under the `.github/workflows` fulder in the root of your repository.
- Name the workflow `03 - Workflow Runners`.
- Add the fullowing triggers to your workflow:
 - `push`
- Add three jobs to the workflow:
 - The first job, `ubuntu-echo`, should run on `ubuntu-latest` and have a single step, named `Show OS`, which runs a multi-line bash script printing `"This job is running on an Ubuntu runner."`, and then the runner OS on the next line.
 - The second job, `windows-echo`, should run on `windows-latest` and have a single step, named `Show OS`, which runs a multi-line bash script printing `"This job is running on a Windows runner."`, and then the runner OS on the next line.
 - The third job, `mac-echo`, should run on `macos-latest` and have a single step, named `Show OS`, which runs a multi-line bash script printing `"This job is running on a MacOS runner."`, and then the runner OS on the next line.
- Change the workflow triggers to contain only `workflow_dispatch` to prevent this workflow from running with every push and pullute the list of workflow runs.

Configure Self-hosted runner

Enable WSL Integration with Ubuntu on Docker Desktop:

- Open Docker Desktop.
- Go to Settings.
- Navigate to Resources -> WSL Integration.
- Enable integration with additional distros and select Ubuntu.

Download and Extract the GitHub Actions Runner:

- Open Windows Subsystem for Linux 2 (WSL2)
- Open a terminal or WSL shell.

- Go to the Settings tab of your repository on GitHub.
- Navigate to the "Actions" section.
- Select "Add runner" to initiate the process of adding a self-hosted runner.
- Choose the appropriate options:
 - Operating System: Select Linux.
 - Architecture: Select x64 (assuming your system architecture is 64-bit).
- After selecting Linux, follow the steps to set up the self-hosted runner.
- After configuration, the self-hosted runner should be operational and ready to execute workflows for your repository. You can use it in your workflow YAML files by specifying `runs-on: self-hosted`.

Tips

Be careful with MacOS runners, they are expensive!

MacOS runners are expensive when used in private repositories, and they can easily consume all the free minutes we have available for the month! Be careful if you are running your workflows in a private repository.

How to access the runner OS

The runner OS is available as an environment variable named `$RUNNER_OS`.

Accessing environment variables in Windows

Windows's default shell is not compatible with bash-like syntax for accessing environment variables. You can either use a compatible method, or use bash by explicitly setting the shell for the respective step:

```
steps:
  \- name: Show OS
     shell: bash
     run: echo "I'm running on bash."
```