DevOps with Github Actions

Welcome

Who am I?

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Agenda

- Intro to Github Actions
- GitHub Actions vs. Workflows
- Writing our first Workflow
- Demo!

What is a Github Action?

GitHub Actions vs. Workflows

- **Workflows**: automated processes that run on your repository; workflows can have many GitHub Actions

- **GitHub Actions**: are individual tasks; they can be written using Docker, JavaScript and now also shell scripts; you can write your own actions or use an action someone else created

Github Actions are **individual tasks** and workflows are **custom automated processes**

GitHub Actions vs. Workflows

Workflow

- Event
  - Trigger
    - Actions

GitHub Actions vs. Workflows

Workflows are defined using `YAML` files and you must store them in the `.github/workflows` directory of your repository. To create a workflow we need to define these things:

- **The event** that triggers the workflow
- **The machine** each job should run
- **The jobs** that make the workflow (jobs contain a set of steps that perform individual tasks and run in parallel by default)
- **The steps** each job should run

GitHub Actions vs. Workflows

The **basic syntax** for a workflow is:

- on — the event that triggers the workflow
- runs-on — the **machine** each job should run
- jobs — the jobs that make the **workflow**
- steps —the **tasks** each job should run
- run —the **command** the step should run

What are triggers?

- Push
- Pull request
- create tag
- create branch
- Issue comment created
- Issue labeled applied
- Issue is opened
- Make private repo public
- Scheduled

https://docs.github.com/en/actions/reference/events-that-trigger-workflows

So what?

Continuous Integration (CI)

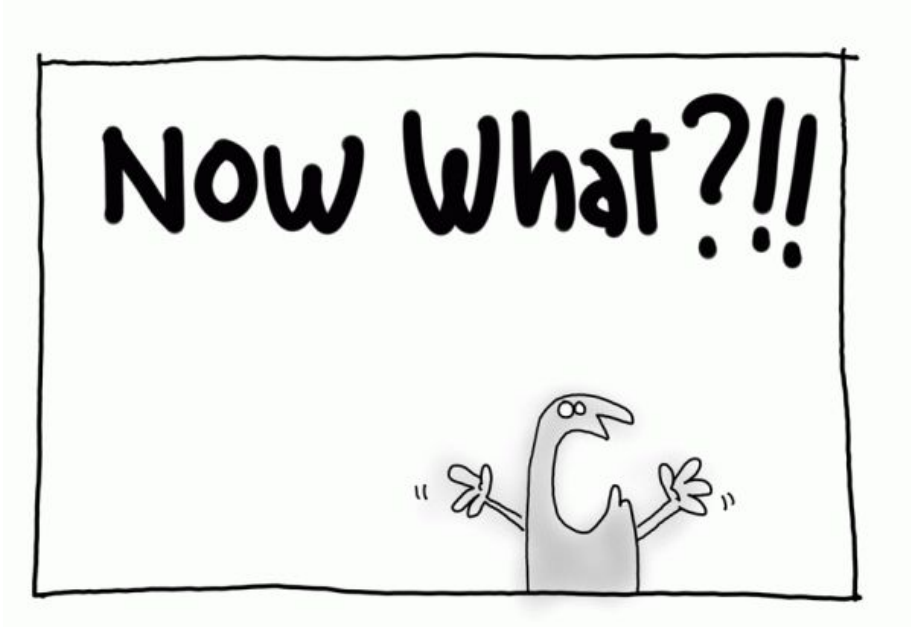
Continuous Integration (CI) is the process of automating the build and testing of code every time a team member commits changes to version control.

https://docs.microsoft.com/en-us/devops/develop/what-is-continuous-integration

Continuous Delivery (CD)

Continuous Delivery (CD) is the process to build, test, configure and deploy from a build to a production environment.

https://docs.microsoft.com/en-us/devops/deliver/what-is-continuous-delivery


Now What?!!


I am about to show you how it's done.

Questions ?