* Must be stored in the .github/workflows directory of the repository
* Uses the .yml file type
* Name:
* Run-name: if the workflow is triggered by a pull\_request event, the name will be set to the event specific information
  + Ex. run-name: Deploy to ${{ inputs.deploy\_target }} by @${{ github.actor }}
* On: pull\_request
  + The syntax used to define the event that triggers the workflow
  + Can also have a manual event for when the user wants to trigger the action manually instead of by a pull request
  + Can also restrict the execution of a workflow to only occur for specific files, tags, or branch changes
  + Multiple event syntax
    - On: [push, pull\_request]
* Jobs:
  + Assigning a job to a series of run commands can allow multiple jobs to run in parallel in a separate environment
  + Can also be set to be sequential with the jobs.<job\_id>.needs keyword
    - The needs keyword can set up dependent jobs that need to be completed until that job can be run

Text

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Description automatically generated

* + Used to help organize batches of jobs
  + Jobs.<job\_id> can be sued to set the id of the job
* Runs-on:
  + Changes the platform the code is executed on

Text

Description automatically generated with medium confidence

* Matrix:
  + Can be used with a programming language specifier to run the code on multiple platforms at the same time
* Run:
  + Executes one command line at a time, and can be stacked to run multiple lines sequentially
* Example from the github documentation on github actions and .yml files

name: GitHub Actions Demo

run-name: ${{ github.actor }} is testing out GitHub Actions 🚀

on: [push]

jobs:

Explore-GitHub-Actions:

runs-on: ubuntu-latest

steps:

- run: echo "The job was automatically triggered by a ${{ github.event\_name }} event."

- run: echo "This job is now running on a ${{ runner.os }} server hosted by GitHub!"

- run: echo "The name of your branch is ${{ github.ref }} and your repository is ${{ github.repository }}."

- name: Check out repository code

uses: actions/checkout@v3

- run: echo "The ${{ github.repository }} repository has been cloned to the runner."

- run: echo "The workflow is now ready to test your code on the runner."

- name: List files in the repository

run: |

ls ${{ github.workspace }}

- run: echo "This job's status is ${{ job.status }}."

Logs that are output show how each run command is executed and can be expanded to view extra details, such as the command line output

Text

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Example: <https://docs.github.com/en/actions/examples/using-scripts-to-test-your-code-on-a-runner>

name: 'Link Checker: All English'

# \*\*What it does\*\*: Renders the content of every page and check all internal links.

# \*\*Why we have it\*\*: To make sure all links connect correctly.

# \*\*Who does it impact\*\*: Docs content.

on:

workflow\_dispatch:

push:

branches:

- main

pull\_request:

permissions:

contents: read

# Needed for the 'trilom/file-changes-action' action

pull-requests: read

# This allows a subsequently queued workflow run to interrupt previous runs

concurrency:

group: '${{ github.workflow }} @ ${{ github.event.pull\_request.head.label || github.head\_ref || github.ref }}'

cancel-in-progress: true

jobs:

check-links:

runs-on: ${{ fromJSON('["ubuntu-latest", "self-hosted"]')[github.repository == 'github/docs-internal'] }}

steps:

- name: Checkout

uses: actions/checkout@v3

- name: Setup node

uses: actions/setup-node@v3

with:

node-version: 16.13.x

cache: npm

- name: Install

run: npm ci

# Creates file "$/files.json", among others

- name: Gather files changed

uses: trilom/file-changes-action@a6ca26c14274c33b15e6499323aac178af06ad4b

with:

fileOutput: 'json'

# For verification

- name: Show files changed

run: cat $HOME/files.json

- name: Link check (warnings, changed files)

run: |

./script/rendered-content-link-checker.mjs \

--language en \

--max 100 \

--check-anchors \

--check-images \

--verbose \

--list $HOME/files.json

- name: Link check (critical, all files)

run: |

./script/rendered-content-link-checker.mjs \

--language en \

--exit \

--verbose \

--check-images \

--level critical