**-Run suggested workflow in GitHub Actions**

**-Run shell script in GitHub Actions**

-create a yaml file

# This is a basic workflow to help you get started with Actions

name: Starting

# Controls when the workflow will run

on:

# Triggers the workflow on push or pull request events but only for the "main" branch

push:

branches: [ "main" ]

pull\_request:

branches: [ "main" ]

# Allows you to run this workflow manually from the Actions tab

workflow\_dispatch:

# A workflow run is made up of one or more jobs that can run sequentially or in parallel

jobs:

# This workflow contains a single job called "build"

build:

# The type of runner that the job will run on

runs-on: ubuntu-latest

# Steps represent a sequence of tasks that will be executed as part of the job

steps:

# Checks-out your repository under $GITHUB\_WORKSPACE, so your job can access it

- uses: actions/checkout@v3

# Runs a single command using the runners shell

- name: Run a one-line script

run: |

ls

java -version

echo Is Git installed

git --version

echo what about build tools?

mvn --version

gradle -version

echo what environment variables are available?

env

# Runs a set of commands using the runners shell

- name: Run a multi-line script

run: |

echo nothing to see in multi-line script

echo here is what is in the folder

ls -a

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1-Create a script.sh in the root folder

ls

echo ls java installed

java -version

echo Is Git installed

git --version

echo what about build tools?

mvn --version

gradle -version

echo what environment variables are available?

env

2- The .yaml file look like(call the shell script in github actions)

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# Steps represent a sequence of tasks that will be executed as part of the job

steps:

# Checks-out your repository under $GITHUB\_WORKSPACE, so your job can access it

- uses: actions/checkout@v3

# Runs a single command using the runners shell

- name: Run a one-line script

run: sh ./script.sh

# Runs a set of commands using the runners shell

- name: Run a multi-line script

run: |

echo nothing to see in multi-line script

echo here is what is in the folder

ls -a

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**-CI/CD pipeline**

name: CI + CD

on:

push:

branches: [ main ]

pull\_request:

branches: [ main ]

workflow\_dispatch:

jobs:

Build:

runs-on: ubuntu-latest

steps:

- uses: actions/checkout@v2

- name: Compile

run: echo Hello, world!

DeployDev:

name: Deploy to Dev

if: github.event\_name == 'pull\_request'

needs: [Build]

runs-on: ubuntu-latest

environment:

name: Development

url: 'http://dev.myapp.com'

steps:

- name: Deploy

run: echo I am deploying!

DeployStaging:

name: Deploy to Staging

if: github.event.ref == 'refs/heads/main'

needs: [Build]

runs-on: ubuntu-latest

environment:

name: Staging

url: 'http://test.myapp.com'

steps:

- name: Deploy

run: echo I am deploying!

DeployProd:

name: Deploy to Production

needs: [DeployStaging]

runs-on: ubuntu-latest

environment:

name: Production

url: 'http://www.myapp.com'

steps:

- name: Deploy

run: echo I am deploying!

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**Build java application with maven**

1. Fork this repo (<https://github.com/learn-bootstrap-fast/rock-paper-scissors>)
2. Create The yaml file in .github/workflows/

# This is a basic workflow to help you get started with Actions

name: GitHub Actions Maven Build Example

on:

push:

branches: [ master ]

jobs:

build-on-ubuntu:

# The type of runner that the job will run on

runs-on: ubuntu-latest

# Steps represent a sequence of tasks that will be executed as part of the job

steps:

# Checks-out your repository under $GITHUB\_WORKSPACE, so your job can access it

- name: Step 1 - Checkout main branch from GitHub

uses: actions/checkout@v2

# Runs a single command using the runners shell

- name: Step 2 - Set up JDK 1.8

uses: actions/setup-java@v1

with:

java-version: 1.8

- name: Step 3 - Have GitHub Actions Build Maven Project

run: mvn -B package --file pom.xml

- name: Step 4 - List the Current directory

run: ls

- name: Step 5 - what is the target directory?

run: |

cd target

ls

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**-Run 3 images (Linux – Windows - mac)**

# This is a basic workflow to help you get started with Actions

name: GitHub Actions Maven Build Example

on:

push:

branches: [ master ]

jobs:

build-on-ubuntu:

# The type of runner that the job will run on

runs-on: ubuntu-latest

# Steps represent a sequence of tasks that will be executed as part of the job

steps:

# Checks-out your repository under $GITHUB\_WORKSPACE, so your job can access it

- name: Step 1 - Checkout main branch from GitHub

uses: actions/checkout@v2

# Runs a single command using the runners shell

- name: Step 2 - Set up JDK 1.8

uses: actions/setup-java@v1

with:

java-version: 1.8

- name: Step 3 - Have GitHub Actions Build Maven Project

run: mvn -B package --file pom.xml

- name: Step 4 - List the Current directory

run: ls

- name: Step 5 - what is the target directory?

run: |

cd target

ls

build-on-windows:

# The type of runner that the job will run on

runs-on: windows-latest

# Steps represent a sequence of tasks that will be executed as part of the job

steps:

# Checks-out your repository under $GITHUB\_WORKSPACE, so your job can access it

- name: Step 1 - Checkout main branch from GitHub

uses: actions/checkout@v2

# Runs a single command using the runners shell

- name: Step 2 - Set up JDK 1.8

uses: actions/setup-java@v1

with:

java-version: 1.8

- name: Step 3 - Have GitHub Actions Build Maven Project

run: mvn -B package --file pom.xml

- name: Step 4 - List the Current directory

run: ls

- name: Step 5 - what is the target directory?

run: |

cd target

ls

build-on-macos:

# The type of runner that the job will run on

runs-on: macos-latest

# Steps represent a sequence of tasks that will be executed as part of the job

steps:

# Checks-out your repository under $GITHUB\_WORKSPACE, so your job can access it

- name: Step 1 - Checkout main branch from GitHub

uses: actions/checkout@v2

# Runs a single command using the runners shell

- name: Step 2 - Set up JDK 1.8

uses: actions/setup-java@v1

with:

java-version: 1.8

- name: Step 3 - Have GitHub Actions Build Maven Project

run: mvn -B package --file pom.xml

- name: Step 4 - List the Current directory

run: ls

- name: Step 5 - what is the target directory?

run: |

cd target

ls