

Home Assignment - DevOps RevealSecurity

This home assignment will check basic knowledge of most of the technologies that are being used within the organization on a daily basis.

Part I:

Create CI/CD workflow in GitHub Actions:

1. Create k8s cluster + private docker registry (Skip this step if already exists)
2. Create docker image (nginx web server + php-fpm with index.php inside)
 - You should be able to modify the content of index.php file
3. Upload the image to the docker registry.
4. Pull the image from the docker registry and deploy it to the kubernetes cluster.
5. For branch develop, the deploy is done automatically on pull request while for branch master the deploy is done by running the workflow manually.
6. The workflow should output the application's service external ip.

Note: Make sure to hide sensitive data

Part II:

Create a bash script that performs the following tasks using yq. Link to yq: [HERE](#)
The script will receive a command to execute and 2 yaml files as input.

Help()

```
{
  # Display Help
  echo "Provide at least one argument"
  echo "Script options:"
  echo
  echo "Syntax: ./run.sh <option> <file1> <file2>"
  echo "options:"
  echo "  merge      Merge the files"
  echo "  unique     Extract the Unique keys along with their values"
  echo "  common     Extract the Common (key, value) pairs"
  echo "  sort       Sort the files by key"
  echo
}
```

Note: The script must be generic for **any** two yaml files.

Good Luck! 😊