DevOps Engineer Home Exercise

Step 1 - Script

Write a script in any language you like,  which does the following:

1. Query “Rick and Morty” API and look for all characters that meets the following conditions:
   1. Species is “Human”
   2. Status is “Alive”
   3. Origin is “Earth”
2. Make a list of the results that will include:
   1. Name.
   2. Location.
   3. Image link.
3. Write the results to a csv file.

For example:

Name,Location,Image

Rick Sanchez,Earth,<https://rickandmortyapi.com/api/character/avatar/1.jpeg>

API Docs can be found here:

[https://rickandmortyapi.com/documentation/#rest](https://rickandmortyapi.com/documentation/%23rest)

Step 2 - Dockerized App

Lets Improve our original script and convert it to REST application (same or different language)

* Create REST API endpoints to fetch the data collected above and return JSON as response.
* Please provide /healthcheck REST API endpoint
* Create Dockerfile that will run your application
* Update README.md file that’s explains how to build and run your Docker Image
* Update README.md with the REST API endpoints you created and how to fetch data

Step 3 - K8s

These steps can be accomplished on Kind/minikube locally

* Create folder called yamls
* Please provide Deployment.yaml , Service.yaml , Ingress.yaml for your application
* Update README.md on how to deploy the manifests to kubernetes and how to get the endpoints

Step 4 - Helm

* Create Helm folder
* Create Helm chart with proper resources and values.yaml
* Update README.md on how to deploy the Helm chart

Step 5 - Github Actions

* Create a workflow that will initiate small kubernetes cluster on Github Actions Runner
* Deploy the application to the local cluster created
* Run some tests to your application endpoints
* Update README.md with explanation about the workflow & jobs & steps