

Solution

Setup

- Following setup was done on windows laptop.
- Enable Hyper-V by using this command on PowerShell -

```
Enable-WindowsOptionalFeature -Online -FeatureName Microsoft-Hyper-V -All
```

- Install Minikube - execute the latest version of [minikube-installer.exe](#) .

```
C:\Windows\system32>minikube version
minikube version: v1.25.2
commit: 362d5fdc0a3db3e389b3d3f1034e8023e72bd3a7
```

- Run `minikube start` and then check the status – `minikube status`

```
C:\Windows\system32>minikube status
minikube
type: Control Plane
host: Running
kubelet: Running
apiserver: Running
kubeconfig: Configured
```

- Install Kubectl - `choco install kubernetes-cli` and verify.

```
C:\Windows\system32>kubectl version --client -o json
{
  "clientVersion": {
    "major": "1",
    "minor": "24",
    "gitVersion": "v1.24.1",
    "gitCommit": "3ddd0f45aa91e2f30c70734b175631bec5b5825a",
    "gitTreeState": "clean",
    "buildDate": "2022-05-24T12:26:19Z",
    "goVersion": "go1.18.2",
    "compiler": "gc",
    "platform": "windows/amd64"
  },
  "kustomizeVersion": "v4.5.4"
}
```

Part 1

- Started with deploying the invoice-app.
`kubectl apply -f deployment.yaml`
- Started with deploying the payment-provider.
`kubectl apply -f deployment.yaml`

- Error 1 -**

```
invoice-app-5bddbd9c8b-g7k48    0/1    ImagePullBackOff    0    86s
```

- Build the Docker image and pushed in Docker hub with new tags.
`docker push vpts/invoice-app:latest`
`docker push vpts/payment-provider:latest`

- Change the name of image in deployment file and again apply.
- Still error
`kubectl describe po invoice-app-5bddbd9c8b-g7k48`

Error: container has runAsNonRoot and image will run as root

- Changed security context in deployment file and gave user an id to run.
- Successful run.

```
F:\Work\sre-challenge-pleo\payment-provider>kubectl get po
NAME                                READY   STATUS    RESTARTS   AGE
invoice-app-547d5b4cc5-79vx2        1/1     Running   0           12m
invoice-app-547d5b4cc5-h6f17        1/1     Running   0           12m
invoice-app-547d5b4cc5-ks5vm        1/1     Running   0           12m
payment-provider-547c758f8-2fk77    1/1     Running   0           10m
payment-provider-547c758f8-8phcj    1/1     Running   0           10m
payment-provider-547c758f8-f26pk    1/1     Running   0           10m
```