Lab-2

Installation of KUBECTL and Minikube

```
Microsoft Windows [Version 10.0.22621.3007]
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C:\Users\gurpr>minikube start
W0115 00:57:59.080619    5176 main.go:291] Unable to resolve the current Docker CLI context "default": context "default": context not found: open C:\Users\g
urpr\.docker\contexts\meta\37a8eec1ce19687d132fe29051dca629d164e2c4958ba141d5f4133a33f0688f\meta.json: The system cannot find the path specified.
* minikube v1.32.0 on Microsoft Windows 11 Home Single Language 10.0.22621.3007 Build 22621.3007
* Automatically selected the docker driver
* Using Docker Desktop driver with root privileges
* Starting control plane node minikube in cluster minikube
* Pulling base image ...
* Downloading Kubernetes v1.28.3 preload ...
    > gcr.io/k8s-minikube/kicbase...:  453.90 MiB / 453.90 MiB  100.00% 34.48 M
    > preloaded-images-k8s-v18-v1...:  403.35 MiB / 403.35 MiB  100.00% 21.48 M
* Creating docker container (CPUs=2, Memory=2200MB) ...
* Preparing Kubernetes v1.28.3 on Docker 24.0.7 ...
  - Generating certificates and keys ...
  - Booting up control plane ...
  - Configuring RBAC rules ...
* Configuring bridge CNI (Container Networking Interface) ...
  - Using image gcr.io/k8s-minikube/storage-provisioner:v5
* Verifying Kubernetes components...
* Enabled addons: storage-provisioner, default-storageclass
* kubectl not found. If you need it, try: 'minikube kubectl -- get pods -A'
* Done! kubectl is now configured to use "minikube" cluster and "default" namespace by default

C:\Users\gurpr>
```

```
* minikube v1.32.0 on Microsoft Windows 11 Home Single Language 10.0.22621.3007 Build 22621.3007
* Using the docker driver based on existing profile
* Starting control plane node minikube in cluster minikube
* Pulling base image ...
* docker "minikube" container is missing, will recreate.
* Creating docker container (CPUs=2, Memory=2200MB) ...
* Preparing Kubernetes v1.28.3 on Docker 24.0.7 ...
* Configuring bridge CNI (Container Networking Interface) ...
* Verifying Kubernetes components...
  - Using image gcr.io/k8s-minikube/storage-provisioner:v5
* Enabled addons: storage-provisioner, default-storageclass
* kubectl not found. If you need it, try: 'minikube kubectl -- get pods -A'
* Done! kubectl is now configured to use "minikube" cluster and "default" namespace by default

C:\Users\gurpr>kubectl create deployment hello-world --image=gcr.io/google-samples/hello-app:1.0
error: failed to create deployment: deployments.apps "hello-world" already exists

C:\Users\gurpr>kubectl create deployment hello-docker --image=gcr.io/google-samples/hello-app:1.0
deployment.apps/hello-docker created

C:\Users\gurpr>kubectl expose deployment hello-docker --type=NodePort --port=8080
service/hello-docker exposed

C:\Users\gurpr>minikube service hello-docker
W0115 01:17:48.056529   18484 main.go:291] Unable to resolve the current Docker CLI context "default": context "default": context not found: open C:\Users\g
urpr\.docker\contexts\meta\37a8eec1ce19687d132fe29051dca629d164e2c4958ba141d5f4133a33f0688f\meta.json: The system cannot find the path specified.
|-----------|--------------|-------------|---------------------------|
| NAMESPACE |     NAME     | TARGET PORT |            URL            |
|-----------|--------------|-------------|---------------------------|
|  default  | hello-docker |        8080 | http://192.168.49.2:31757 |
|-----------|--------------|-------------|---------------------------|
* Starting tunnel for service hello-docker.
|-----------|--------------|-------------|---------------------------|
| NAMESPACE |     NAME     | TARGET PORT |            URL            |
|-----------|--------------|-------------|---------------------------|
|  default  | hello-docker |             | http://127.0.0.1:63511    |
|-----------|--------------|-------------|---------------------------|
* Opening service default/hello-docker in default browser...
! Because you are using a Docker driver on windows, the terminal needs to be open to run it.
```

Hello, world!
Version: 1.0.0
Hostname: hello-docker-6456d88796-dvdfp