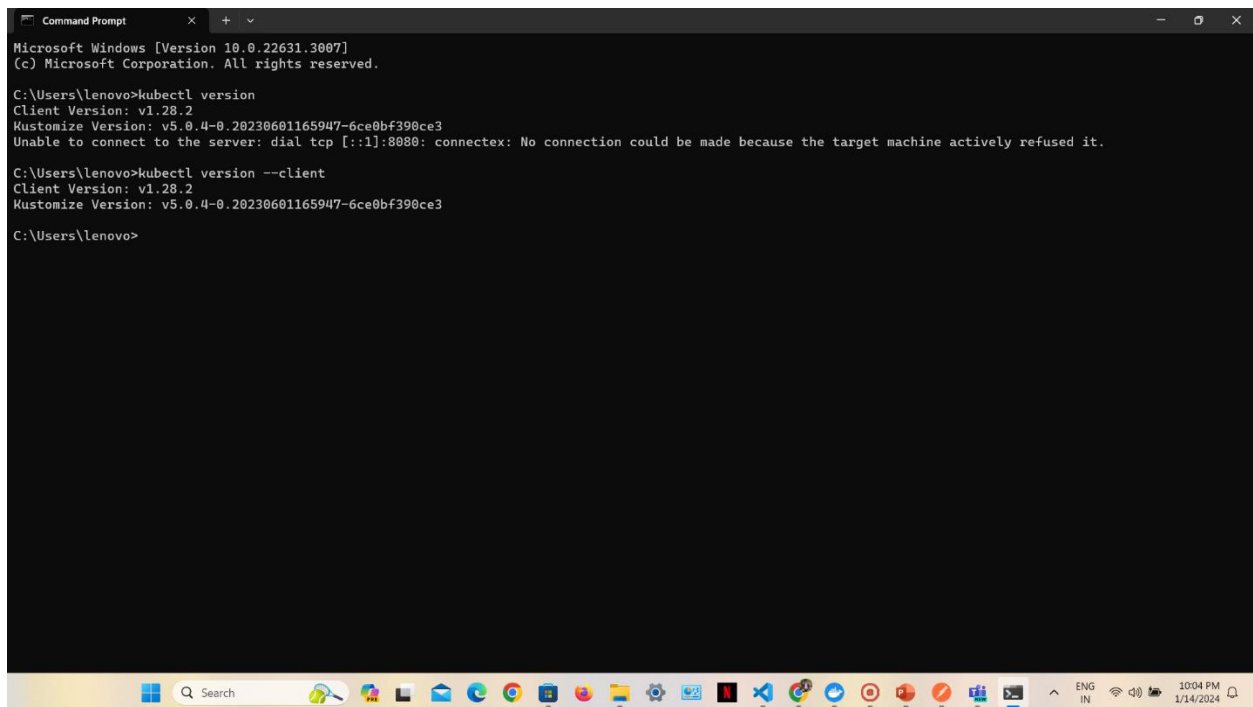
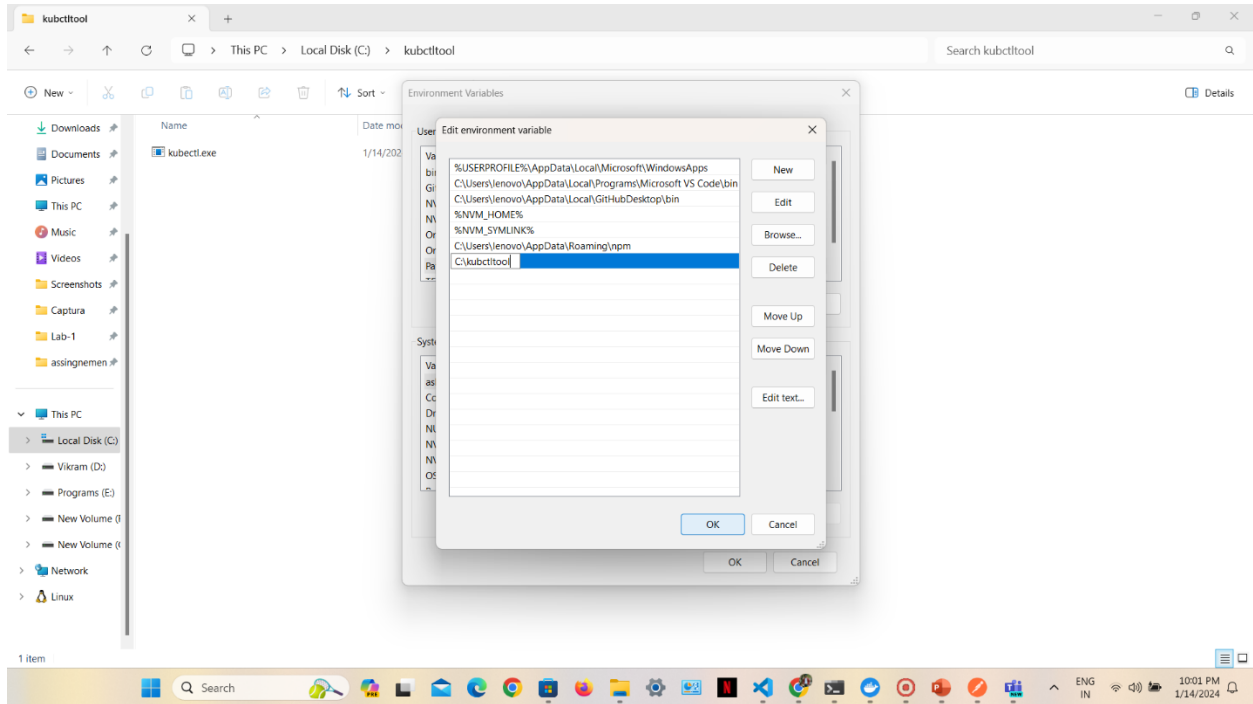


LAB-2

Kubectl directly download and install after that path added to environmental varibale



#Minikube installation

```
Command Prompt - minikube x + v
enovo\.docker\contexts\meta\37a8eec1ce19687d132fe29051dca629d164e2c4958ba141d5f4133a33f0688f\meta.json: The system cannot find the path specified.
* Profile "minikube" not found. Run "minikube profile list" to view all profiles.
  To start a cluster, run: "minikube start"

C:\Users\lenovo>minikube start
W0114 22:17:29.233286 22368 main.go:291] Unable to resolve the current Docker CLI context "default": context "default": context not found: open C:\Users\lenovo\.docker\contexts\meta\37a8eec1ce19687d132fe29051dca629d164e2c4958ba141d5f4133a33f0688f\meta.json: The system cannot find the path specified.
* minikube v1.32.0 on Microsoft Windows 11 Home Single Language 10.0.22631.3007 Build 22631.3007
^C
C:\Users\lenovo>

C:\Users\lenovo>

C:\Users\lenovo>

C:\Users\lenovo>minikube start --driver=docker
W0114 22:18:51.340041 6488 main.go:291] Unable to resolve the current Docker CLI context "default": context "default": context not found: open C:\Users\lenovo\.docker\contexts\meta\37a8eec1ce19687d132fe29051dca629d164e2c4958ba141d5f4133a33f0688f\meta.json: The system cannot find the path specified.
* minikube v1.32.0 on Microsoft Windows 11 Home Single Language 10.0.22631.3007 Build 22631.3007
* Using the docker driver based on user configuration
* Using Docker Desktop driver with root privileges
* Starting control plane node minikube in cluster minikube
* Pulling base image ...
* Downloading Kubernetes v1.28.3 preload ...
  > preloaded-images-k8s-v18-v1...: 403.35 MiB / 403.35 MiB 100.00% 10.83 M
  > gcr.io/k8s-minikube/kicbase...: 453.90 MiB / 453.90 MiB 100.00% 10.13 M
|

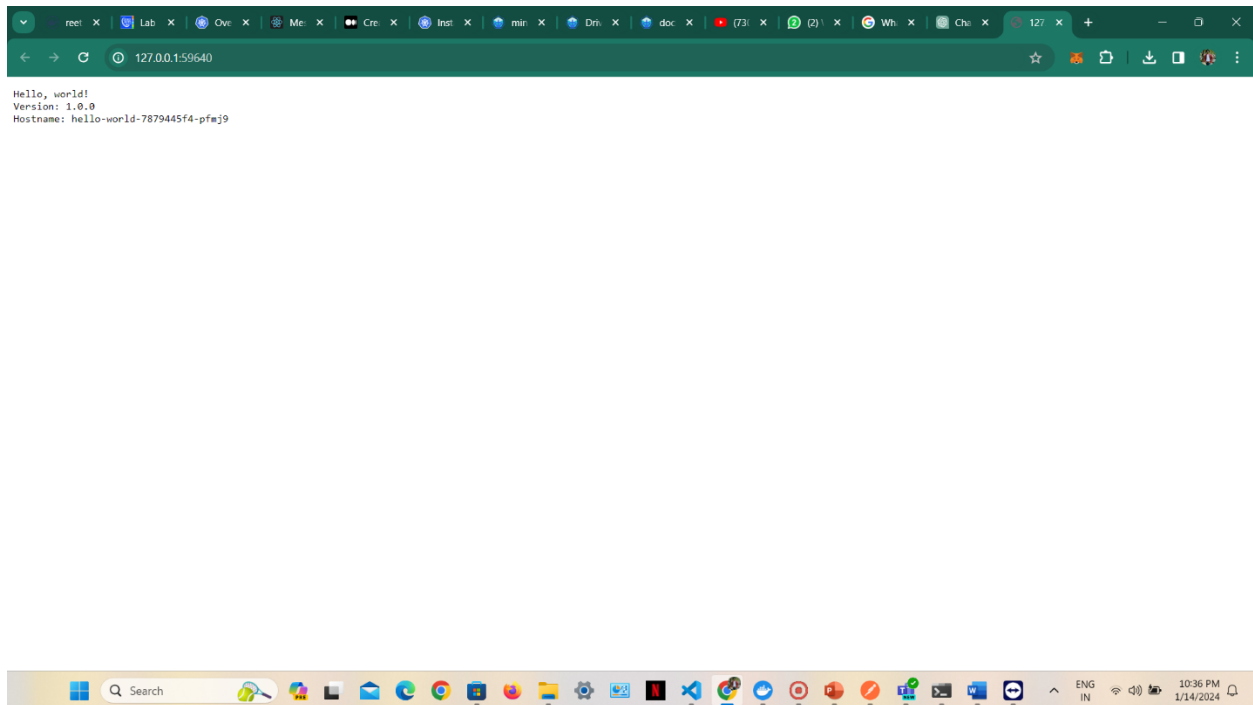
Windows PowerShell x + v
PS C:\Users\lenovo> minikube start
W0114 22:30:16.016824 21872 main.go:291] Unable to resolve the current Docker CLI context "default": context "default": context not found: open C:\Users\lenovo\.docker\contexts\meta\37a8eec1ce19687d132fe29051dca629d164e2c4958ba141d5f4133a33f0688f\meta.json: The system cannot find the path specified.
* minikube v1.32.0 on Microsoft Windows 11 Home Single Language 10.0.22631.3007 Build 22631.3007
* Using the docker driver based on existing profile
* Starting control plane node minikube in cluster minikube
* Pulling base image ...
* Updating the running docker "minikube" container ...
* 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) ...
* Verifying Kubernetes components...
  * Using image gcr.io/k8s-minikube/storage-provisioner:v5
* Enabled addons: storage-provisioner, default-storageclass
* Done! kubectrl is now configured to use "minikube" cluster and "default" namespace by default
PS C:\Users\lenovo> kubectl create deployment hello-world --image=gcr.io/google-samples/hello-app:1.0
deployment.apps/hello-world created
PS C:\Users\lenovo> kubectl expose deployment hello-world --type=NodePort --port=8080
service/hello-world exposed
PS C:\Users\lenovo> minikube service hello-world
W0114 22:35:49.150157 20320 main.go:291] Unable to resolve the current Docker CLI context "default": context "default": context not found: open C:\Users\lenovo\.docker\contexts\meta\37a8eec1ce19687d132fe29051dca629d164e2c4958ba141d5f4133a33f0688f\meta.json: The system cannot find the path specified.

+-----+-----+-----+-----+
| NAMESPACE | NAME      | TARGET PORT | URL                               |
+-----+-----+-----+-----+
| default    | hello-world | 8080         | http://192.168.49.2:30225       |
+-----+-----+-----+-----+

* Starting tunnel for service hello-world.

+-----+-----+-----+-----+
| NAMESPACE | NAME      | TARGET PORT | URL                               |
+-----+-----+-----+-----+
| default    | hello-world |             | http://127.0.0.1:59640         |
+-----+-----+-----+-----+

* Opening service default/hello-world in default browser...
! Because you are using a Docker driver on windows, the terminal needs to be open to run it.
```



QUIZ

Understand what kubernetes doesnt do from here (<https://kubernetes.io/docs/concepts/overview/>) and explain in your own words. **Do not copy and paste from the website.**

Answer - Kubernetes is not used to build applications. It does not provide services like middleware, Frameworks, Database, caches.

Kubernetes is independent from comprehensive machine configuration, maintenance, management.

What other Orchestration tools are available other than Kubernetes

Answer - Amazon ECS, Azure Container, OpenShift