

# 23 NASA lab 5

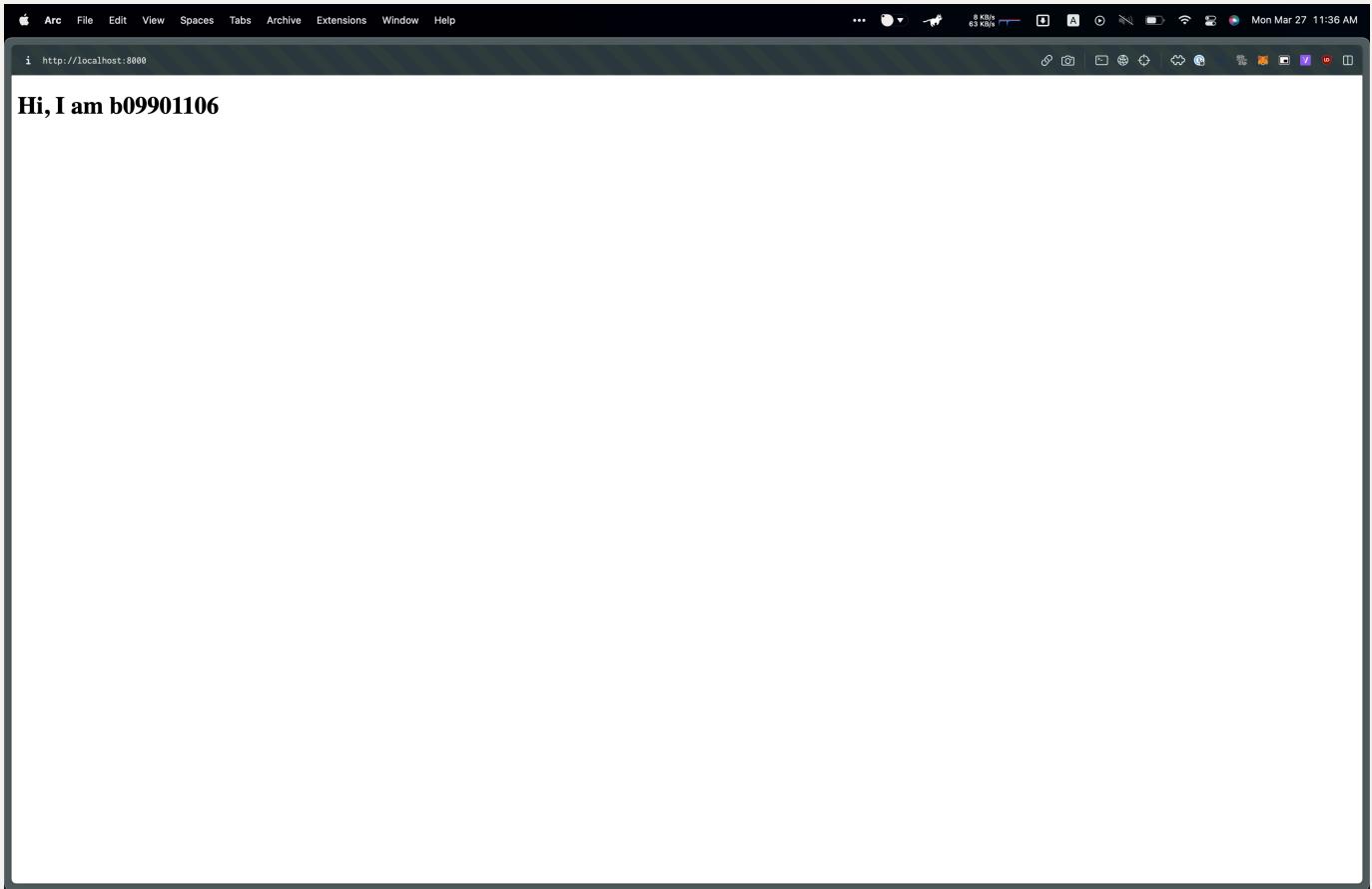
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## task1

```
</body>
</html>

> docker run -it --name lab5_task1 -v index.html:/var/www/html/index.html -p 8080:80 ubuntu:22.04 bash
root@6fc84709bec2:/# ls
bin  boot  dev  etc  home  lib  media  mnt  opt  proc  root  run  sbin  srv  sys  tmp  usr  var
root@6fc84709bec2:/# apt update
Get:1 http://ports.ubuntu.com/ubuntu-ports jammy InRelease [270 kB]
Get:2 http://ports.ubuntu.com/ubuntu-ports jammy-updates InRelease [119 kB]
Get:3 http://ports.ubuntu.com/ubuntu-ports jammy-backports InRelease [107 kB]
Get:4 http://ports.ubuntu.com/ubuntu-ports jammy-security InRelease [110 kB]

Building dependency tree... Done
Reading state information... Done
All packages are up to date.
root@6fc84709bec2:/# apt install -y nginx
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  fontconfig-config fonts-dejavu-core iproute2 libatm1 lib
  libjpeg8 libmaxminddb0 libmd0 libmnl0 libnginx-mod-http-
Setting up nginx core (1.18.0-6ubuntu14.3) ...
invoke-rc.d: could not determine current runlevel
invoke-rc.d: policy-rc.d denied execution of start.
Setting up nginx (1.18.0-6ubuntu14.3) ...
Processing triggers for libc-bin (2.35-0ubuntu3.1) ...
root@6fc84709bec2:/# service nginx start
 * Starting nginx nginx
root@6fc84709bec2:/# █
```



## task2

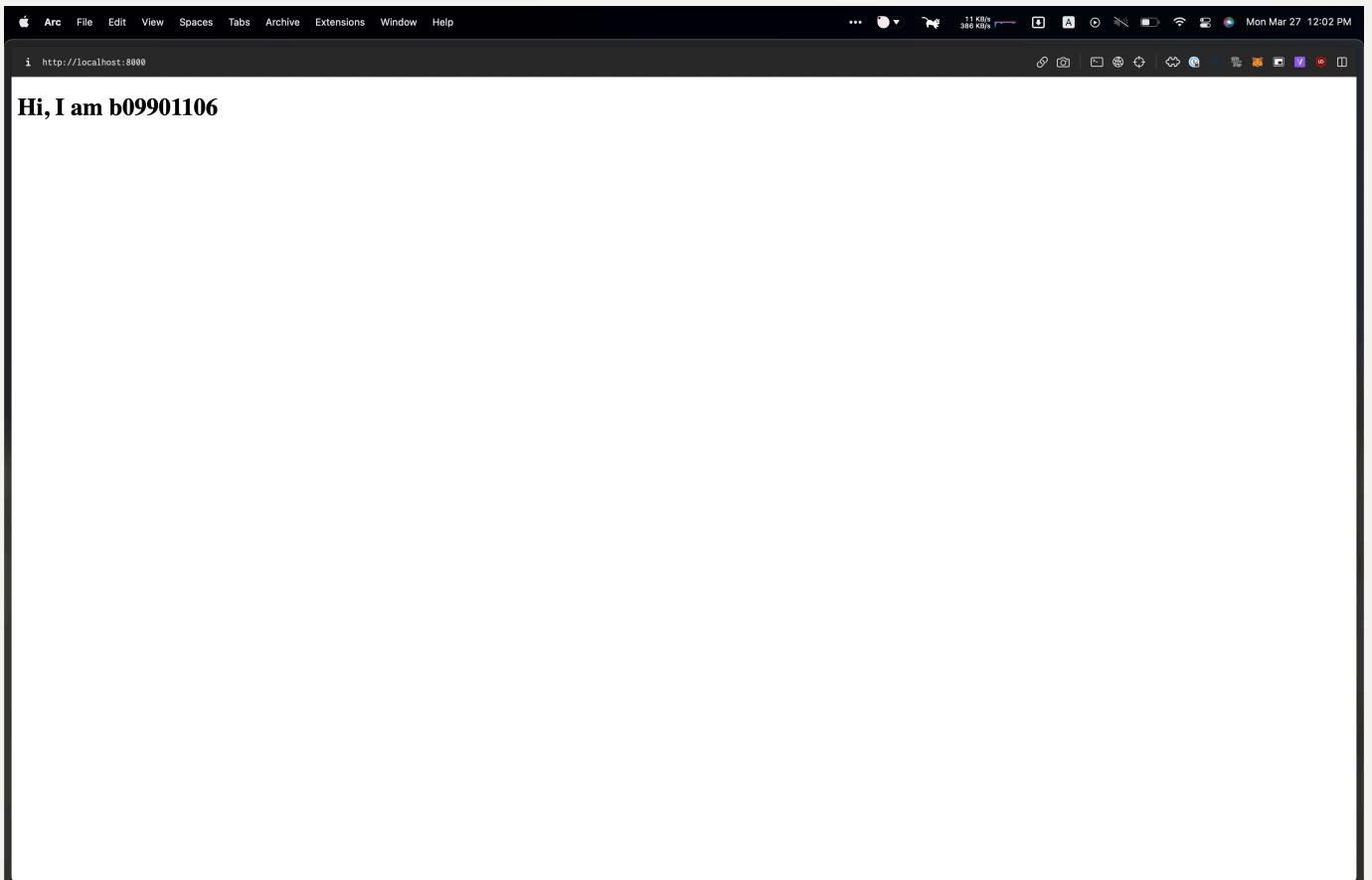
```
› cat Dockerfile
FROM ubuntu:22.04

EXPOSE 80

RUN apt update && apt install -y nginx
COPY index.html /var/www/html/index.html
CMD ["nginx", "-g", "daemon off;"]
```

```
> docker build -t b09901106_mywebserver .
[+] Building 0.1s (8/8) FINISHED
⇒ [internal] load build definition from Dockerfile
⇒ ⇒ transferring dockerfile: 188B
⇒ [internal] load .dockerignore
⇒ ⇒ transferring context: 2B
⇒ [internal] load metadata for docker.io/library/ubuntu:22.04
⇒ [1/3] FROM docker.io/library/ubuntu:22.04
⇒ [internal] load build context
⇒ ⇒ transferring context: 32B
⇒ CACHED [2/3] RUN apt update && apt install -y nginx
⇒ CACHED [3/3] COPY index.html /var/www/html/index.html
⇒ exporting to image
⇒ ⇒ exporting layers
⇒ ⇒ writing image sha256:11d9f0dd269701de43669e108a8be76472864bd5e32bc99de5e51a5d212a9a36
⇒ ⇒ naming to docker.io/library/b09901106_mywebserver
```

```
> docker run -itd -p 8000:80 b09901106_mywebserver
07acba3ea63dbf2b77f7e39253cbd8f262f5d80f22089b4cf22d617c6edbec81
nasa/[nasa-2023-spring]/lab5 ?1 on sponya-230316
> docker ps
CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS
07acba3ea63d b09901106_mywebserver "nginx -g 'daemon of..." 2 seconds ago Up 1 second 0.0.0.0:8000→80/tcp
fc6444993891 gcr.io/k8s-minikube/kicbase:v0.0.37 "/usr/local/bin/entr..." 38 minutes ago Up 38 minutes 127.0.0.1:49634→22/tcp, 127.0.0.1:49635→2376/tcp, 127.0.0.1:49637→5000/tcp, 127.0.0.1:49638→8443/tcp, 127.0.0.1:49636→32443/tcp minikube
80e263b5b871 postgres "docker-entrypoint.s..." 5 days ago Up 14 hours 0.0.0.0:5432→5432/tcp
156ca4af469b redis "docker-entrypoint.s..." 5 days ago Up 14 hours 0.0.0.0:6379→6379/tcp
lightdance-editor-redisdb-1
```

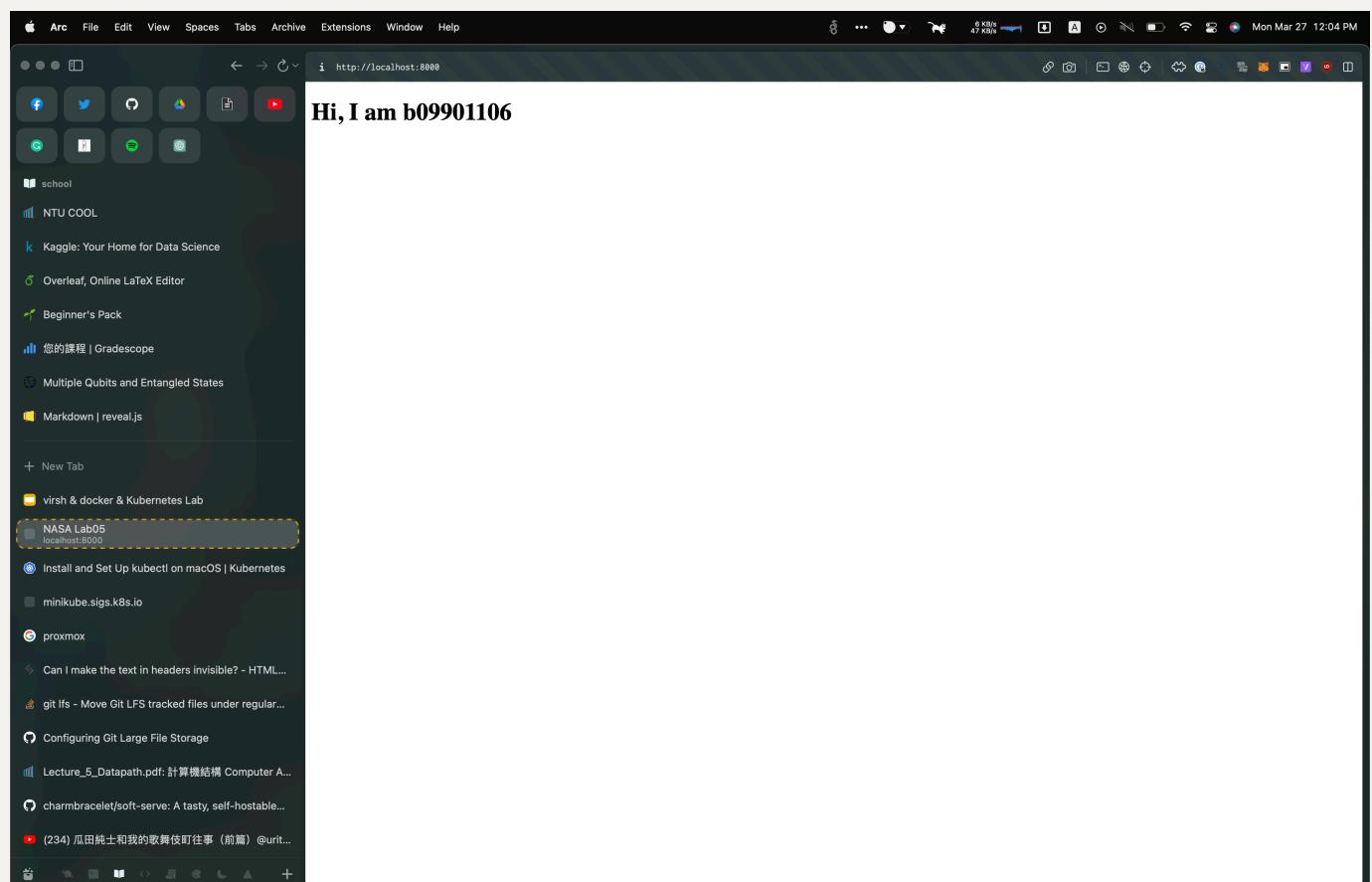


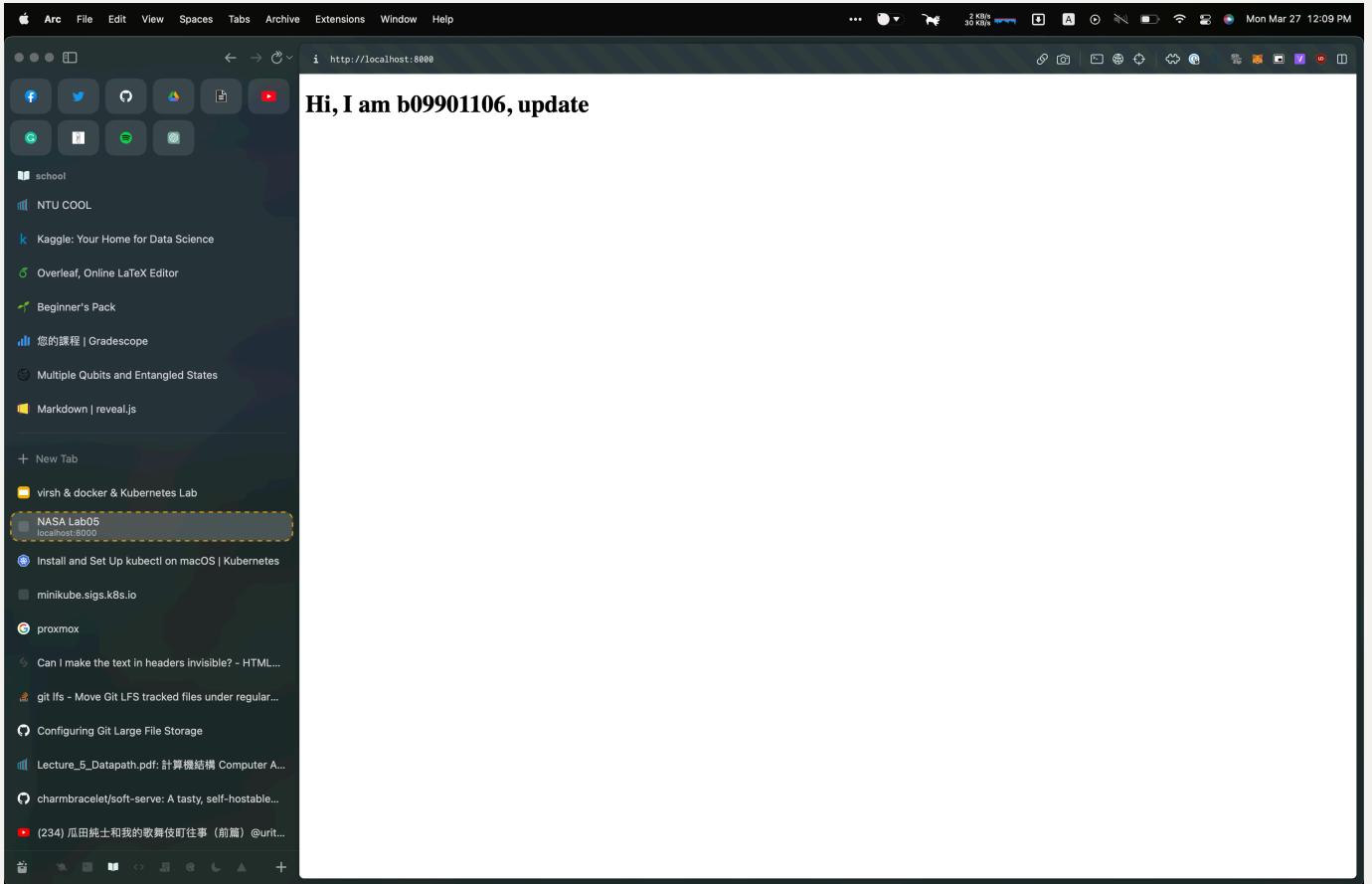
## task3

```
> minikube image build -t b09901106_mywebserver:1.0.0 .
Sending build context to Docker daemon 3.072kB
Step 1/5 : FROM ubuntu:22.04
22.04: Pulling from library/ubuntu
cd741b12a7ea: Pulling fs layer
cd741b12a7ea: Download complete
cd741b12a7ea: Pull complete
Digest: sha256:67211c14fa74f070d27cc59d69a7fa9aeff8e28ea118ef3babc295a0428a6d21
Status: Downloaded newer image for ubuntu:22.04
--> bab8ce5c00ca
Step 2/5 : EXPOSE 80
--> Running in 39cb38f93f47
Removing intermediate container 39cb38f93f47
--> 1a22125a98bc
Step 3/5 : RUN apt update && apt install -y nginx
--> Running in e60b2d68506c
```

```
> kubectl create deployment b09901106-mywebserver-deployment --image=b09901106_mywebserver:1.0.0
--port=80
deployment.apps/b09901106-mywebserver-deployment created

> kubectl port-forward deployment/b09901106-mywebserver-deployment 8000:80
Forwarding from 127.0.0.1:8000 → 80
Forwarding from [::1]:8000 → 80
Handling connection for 8000
```





```
> kubectl describe deployment b09901106-mywebserver-deployment
Name:           b09901106-mywebserver-deployment
Namespace:      default
CreationTimestamp: Mon, 27 Mar 2023 12:03:28 +0800
Labels:          app=b09901106-mywebserver-deployment
Annotations:    deployment.kubernetes.io/revision: 2
Selector:        app=b09901106-mywebserver-deployment
Replicas:       1 desired | 1 updated | 1 total | 1 available | 0 unavailable
StrategyType:   RollingUpdate
MinReadySeconds: 0
RollingUpdateStrategy: 25% max unavailable, 25% max surge
Pod Template:
  Labels:  app=b09901106-mywebserver-deployment
  Containers:
    b09901106-mywebserver-6z5jr:
      Image:      b09901106_mywebserver:2.0.0
      Port:       80/TCP
      Host Port:  0/TCP
      Environment: <none>
      Mounts:     <none>
      Volumes:    <none>
  Conditions:
    Type      Status  Reason
    ----      ----   -----
    Available  True    MinimumReplicasAvailable
    Progressing True   NewReplicaSetAvailable
OldReplicaSets: <none>
NewReplicaSet:  b09901106-mywebserver-deployment-786f7685c4 (1/1 replicas created)
Events:
  Type      Reason          Age      From            Message
  ----      ----   ----      ----   -----
  Normal   ScalingReplicaSet 7m5s    deployment-controller  Scaled up replica set b09901106-mywebserver-deployment-55d9ffd5d7 to 1
  Normal   ScalingReplicaSet 4m17s   deployment-controller  Scaled up replica set b09901106-mywebserver-deployment-786f7685c4 to 1
  Normal   ScalingReplicaSet 4m16s   deployment-controller  Scaled down replica set b09901106-mywebserver-deployment-55d9ffd5d7 to 0 from 1
nasa/[nasa-2023-spring]/lab5 ?1 on sponya-230316
```