Dockerizing a simple HTML page using Nginx as the web server.

GitHub repository link: https://github.com/ankuronlyme/Docker_html

- Create a plain HTML page named index.html with some content (e.g., "Hello, Docker!").
- Nginx Configuration (nginx.conf):
- Create an Nginx configuration file named nginx.conf that serves the index.html page.
- Configure Nginx to listen on port 80.
- Create a Dockerfile to define the Docker image.
- Use an official Nginx base image.
- Copy the index.html and nginx.conf files into the appropriate location in the container.
- Ensure that the Nginx server is started when the container is run.
- Build the Docker image using the Dockerfile run command:

  docker build –t <your image name> .

  -t is denotes for giving a tag.
  - . is denotes for giving the path

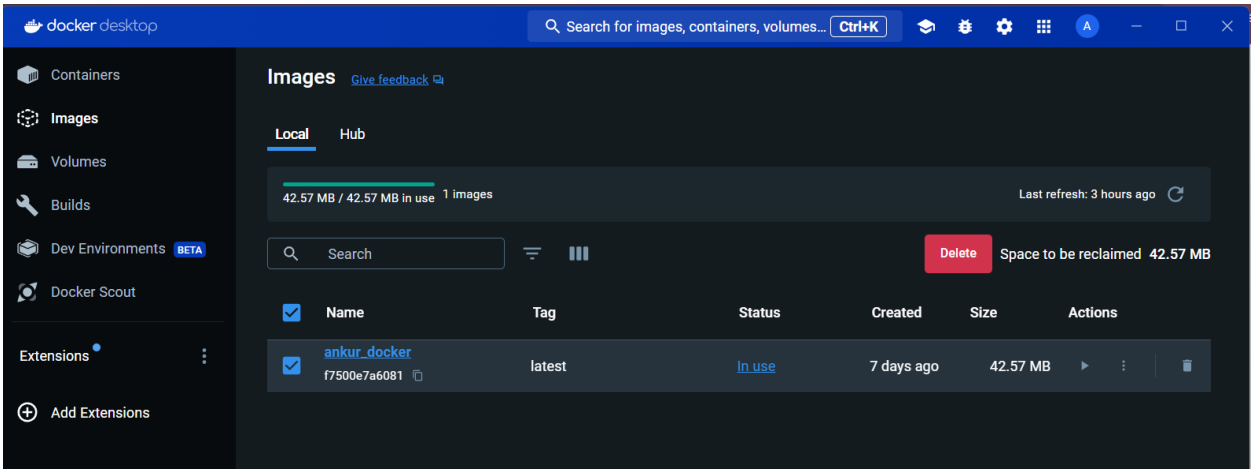
- After run this command build is successfully created:

```
PS C:\Users\pc\Docker_html> docker build -t ankur_docker .
[+] Building 2.7s (9/9) FINISHED
 => [internal] load build definition from Dockerfile
 => => transferring dockerfile: 171B
 => [internal] load metadata for docker.io/library/nginx:alpine
 => [auth] library/nginx:pull token for registry-1.docker.io
 => [internal] load .dockerignore
 => => transferring context: 2B
 => [1/3] FROM docker.io/library/nginx:alpine@sha256:6a2f8b28e45c4adea04ec207a251fd4a2df03ddc930f782af51e315ebc76e9a9
 => [internal] load build context
 => => transferring context: 352B
 => CACHED [2/3] COPY index.html /usr/share/nginx/html/index.html
 => CACHED [3/3] COPY nginx.conf /etc/nginx/site-available/nginx.conf
 => exporting to image
 => => exporting layers
 => => writing image sha256:f7500e7a608179cee0d702b071ef7c435d3452e1fcce543ef53db892251e724c
 => => naming to docker.io/library/ankur_docker

View build details: docker-desktop://dashboard/build/default/default/lf11ge9t9cr6sei8m2b577vvy

What's Next?
  View a summary of image vulnerabilities and recommendations → docker scout quickview
```

- Also check is image is created or not in desktop Docker run command : **docker images**

```
PS C:\Users\pc\Docker_html> docker images
REPOSITORY     TAG       IMAGE ID       CREATED      SIZE
ankur_docker   latest    f7500e7a6081   7 days ago   42.6MB
```

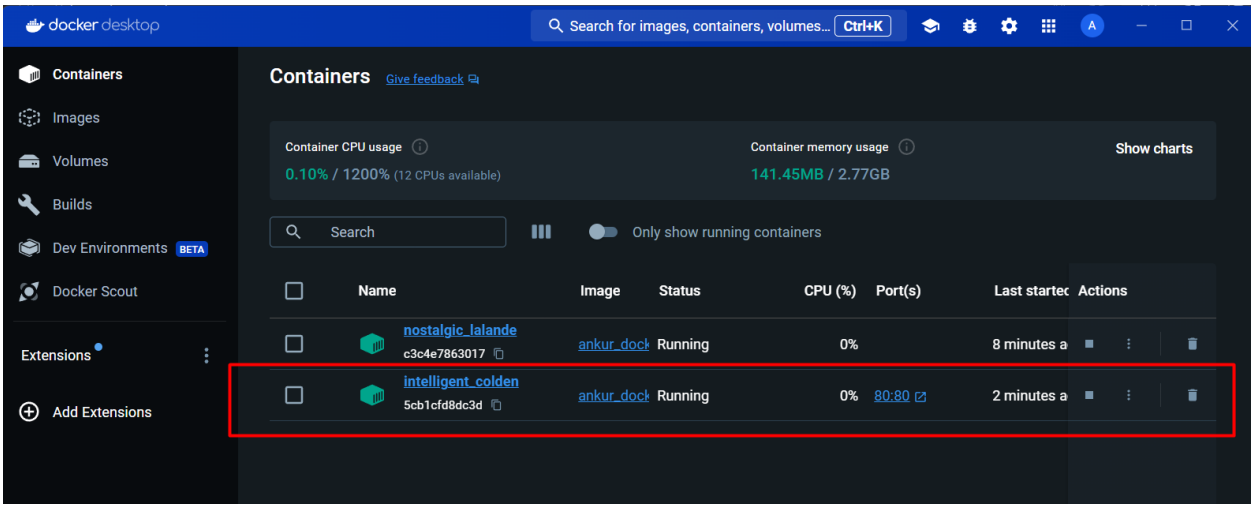
Images is created in the desktop Docker



- To run image into the container execute command:
  docker run -it -p 80:80 -d <your – image- name>

  -it denotes for to run in interwactive mode TTY
  -p denotes for ports
  -d denotes for detached mode (The Docker container running in the background).

```
PS C:\Users\pc\Docker_html> docker run -it -p 80:80 -d ankur_docker
5cb1cfd8dc3d1975c5ae29ff8f8854880fb8787a7b82b9a8dedff8d7783f5e51
```

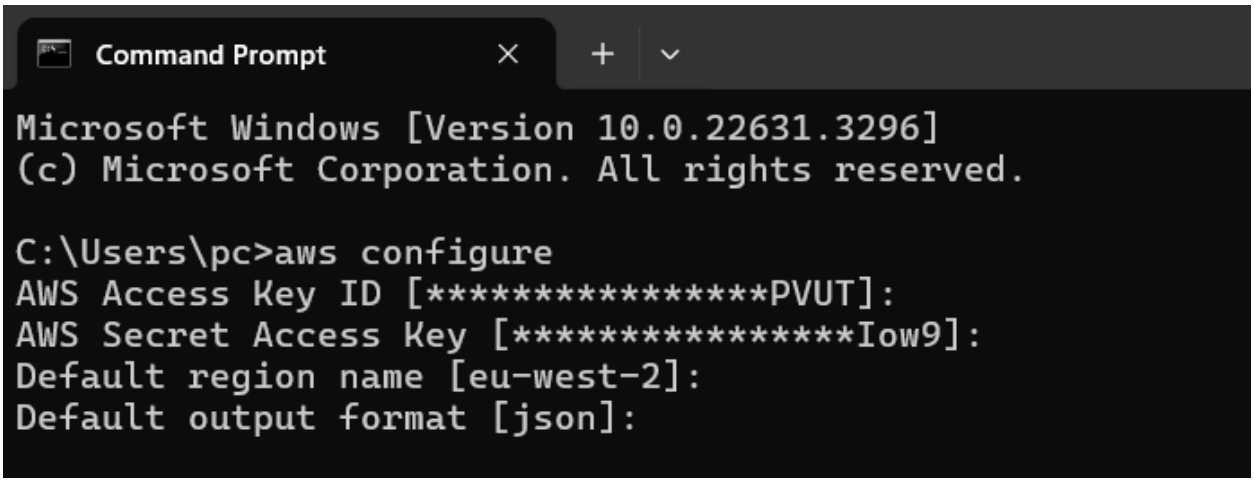


Our webpage is also running on localhost:

- **Now we have to push our image into ECR (Elastic Container Registry)**

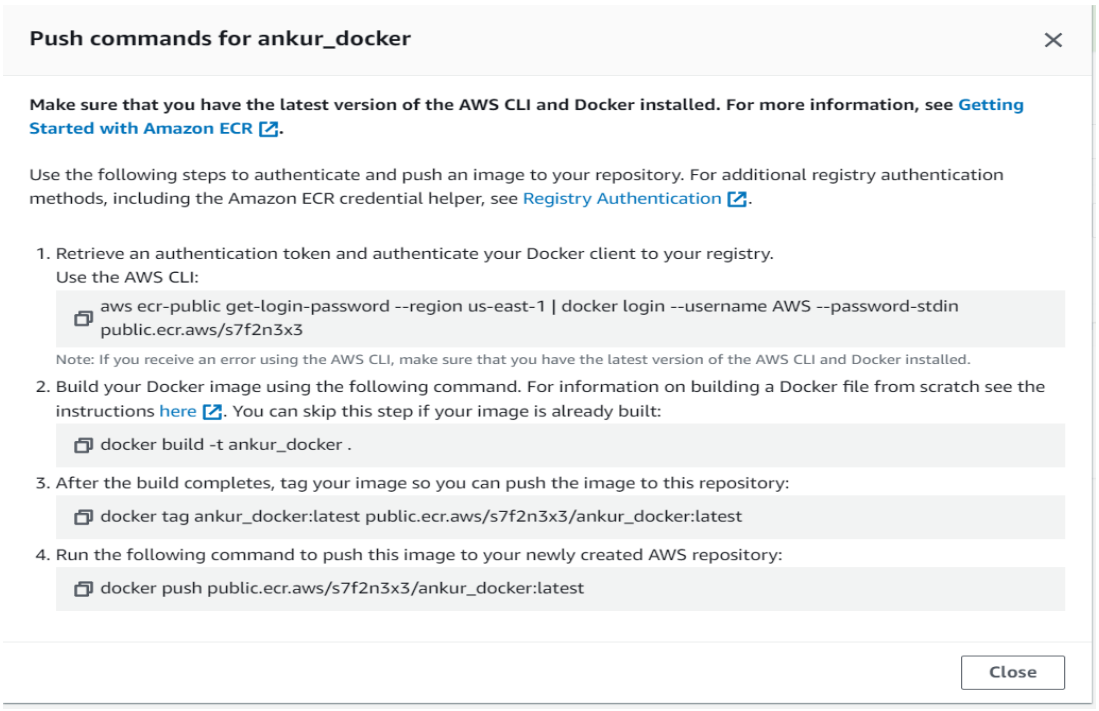
  Step: 1: Go to your AWS account.
  Step: 2: Go to the services and search with ECR or Elastic Container Registry.
  Step: 3: Create a public repository in ECR.

- After create a repository now we have to install AWS CLI in our machine. Foe download the AWS CLI prefer official site: https://awscli.amazonaws.com/AWSCLIV2.msi
- After setup the AWS CLI into the machine, now have to configure AWS CLI with our AWS account we need “I AM” or “Secret keys” and “Access Keys”
- Now go to your command prompt and run command: aws configure; after run the command just copy paste your access key and secret key, region name.



- Now AWS configure successfully.
- Next step is we have to push or image into ECR (Elastic Container Repository). Below are the steps for that:

Step: 1: Go to your ECR Repository there is a button called “View Push command” click on it, then you will get the commands:



Step: 2: Copy first command and execute into your VS code terminal.

Note*:-

Now you may facing an error in execution of the command so for resolving this issue we have to follow few steps:

Step: 1: Goto your .docker folder it is present in the c drive for my system the path is “C:\Users\pc\.docker” .
Step: 2: There is file with name “Config.json”, make a duplicate file of itv and name it “Configbackup.json”.
Step : 3: We have to make some correction in the main file “Config.json”, there is a line "credsStore": "desktop", remove this and save.
Step: 4 : Now go to your docker folder C:\Program Files\Docker\Docker\resources\bin, upto bin folder and rename a file “docker-credential-wincred” to “docker-credential-wincred.backup”. Just add.backup in the end and save it.

- Now again execute the first command again, and its running fine:

```
PS C:\Users\pc\Docker_html> aws ecr-public get-login-password --region us-east-1 | docker login --username AWS --password-stdin public.ecr.aws/s7f2n3x3
WARNING! Your password will be stored unencrypted in C:\Users\pc\.docker\config.json.
Configure a credential helper to remove this warning. See
https://docs.docker.com/engine/reference/commandline/login/#credentials-store

Login Succeeded
```

Step 3: Run second command to build:

Step 4: Run third command:

```
PS C:\Users\pc\Docker_html> docker tag ankur_docker:latest public.ecr.aws/s7f2n3x3/ankur_docker:V1.0
```

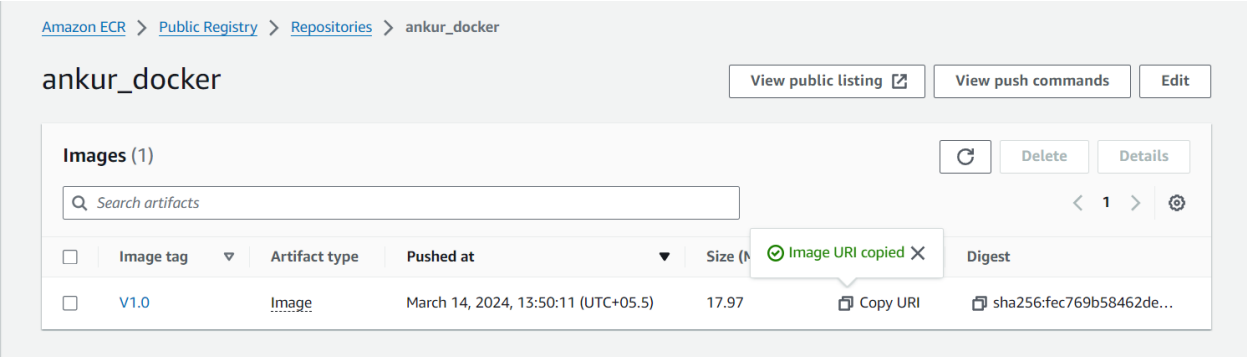
Make changes in the, if you want you can execute version.

Step: 5: Run fourth command:

If have already pushed this image with the same name so its shows layer already exist: but in your case it will show the image pushing:

```
PS C:\Users\pc\Docker_html> docker push public.ecr.aws/s7f2n3x3/ankur_docker:V1.0
The push refers to repository [public.ecr.aws/s7f2n3x3/ankur_docker]
ed1bf9db37df: Layer already exists
badbe6e20a95: Layer already exists
667a247707f0: Layer already exists
d8527026595f: Layer already exists
2593b08e5428: Layer already exists
9909978d630d: Layer already exists
c5140fc719dd: Layer already exists
3137f8f0c641: Layer already exists
718db50a47c0: Layer already exists
aedc3bda2944: Layer already exists
V1.0: digest: sha256:fec769b58462deb89699016a0332e2b772bc5580992b1aa65940c880aa41deab size: 2403
```

- After pushing the image it will refelect in the ECR: public.ecr.aws/s7f2n3x3/ankur_docker:V1.0



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