Assignment: 8

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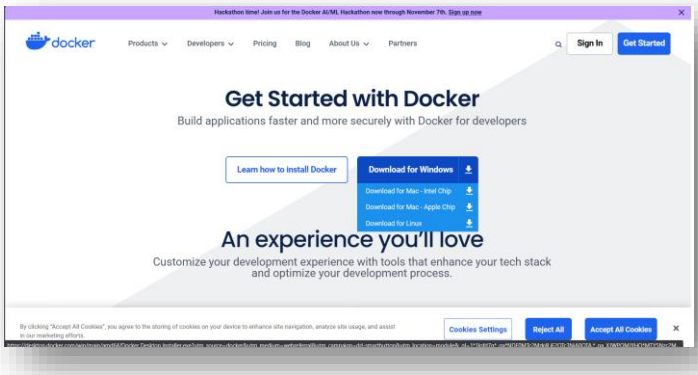
Aim: To build an image for sample web application using Dockerfile.

LO mapped: LO1, LO5

Theory:

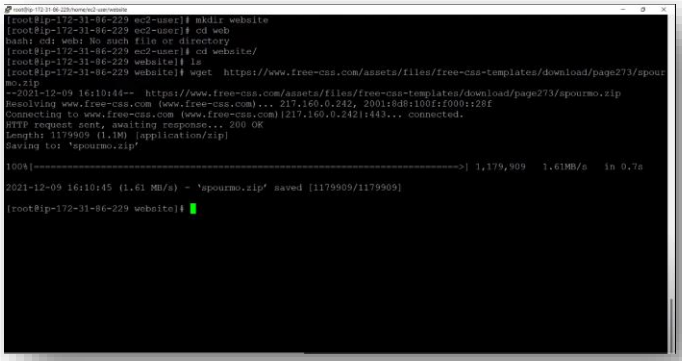
The steps to build an image for sample web application using Dockerfile are as follows:

1. **Install Docker**: Ensure that Docker is installed on your system. You can download and install it from the Docker website.

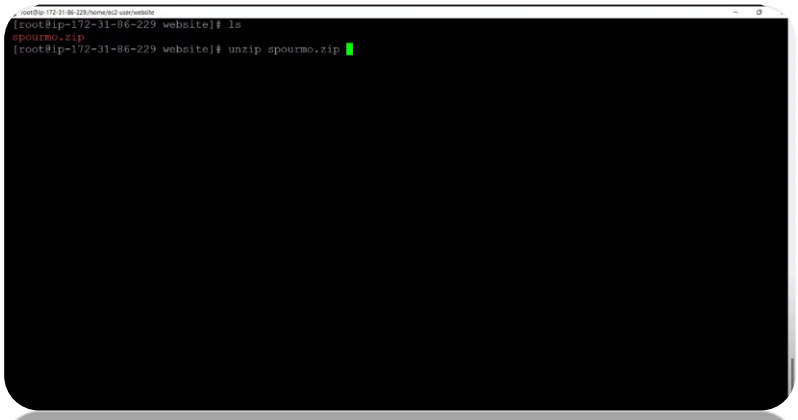


2. **Create a Project Directory**: Start by creating a directory for your project. Inside this directory, you will place your web application code and Dockerfile.

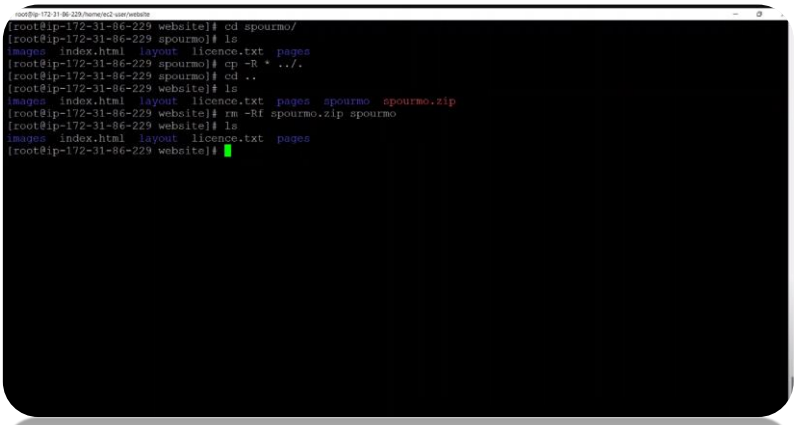
3. **Write a Dockerfile**: Create a Dockerfile in your project directory. This file contains instructions for building the Docker image. Here's a simple example of a Dockerfile for a Node.js web application:

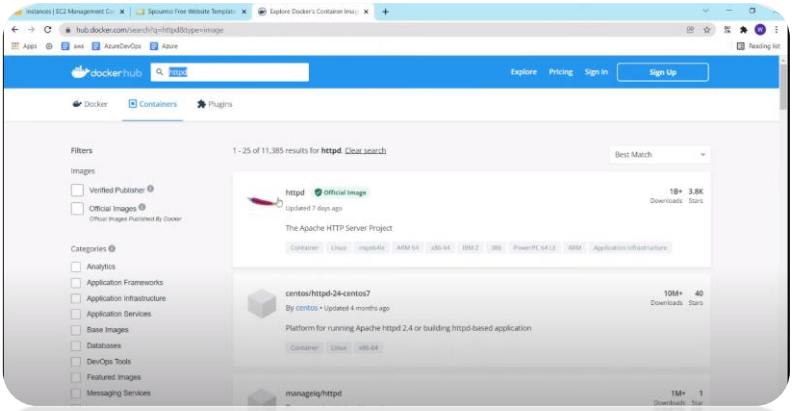


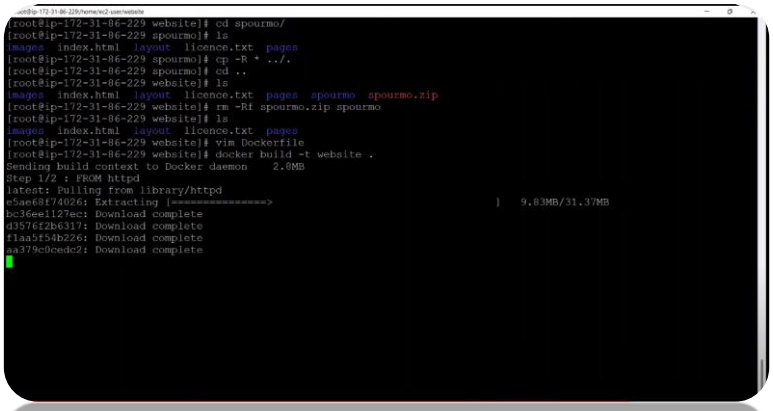
4. **Place Application Code**: Place your web application code, including HTML, JavaScript, CSS, and any other assets, in the same project directory.

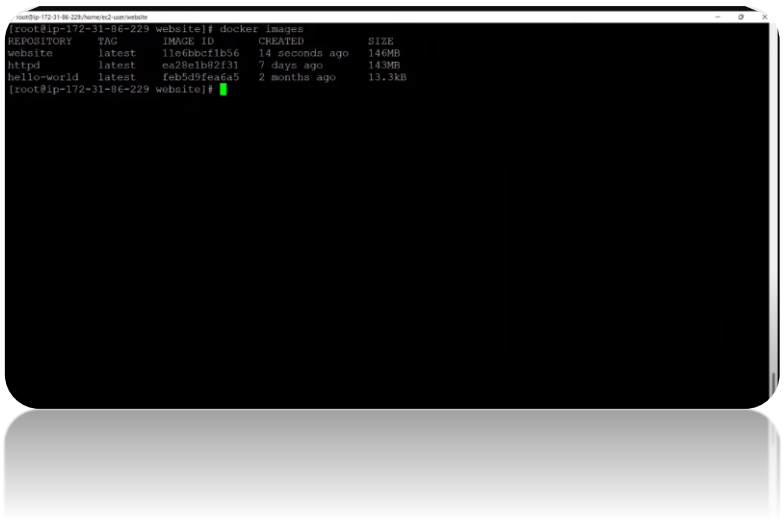


5. **Build the Docker Image**: Open a terminal and navigate to your project directory. Run the following command to build the Docker image:

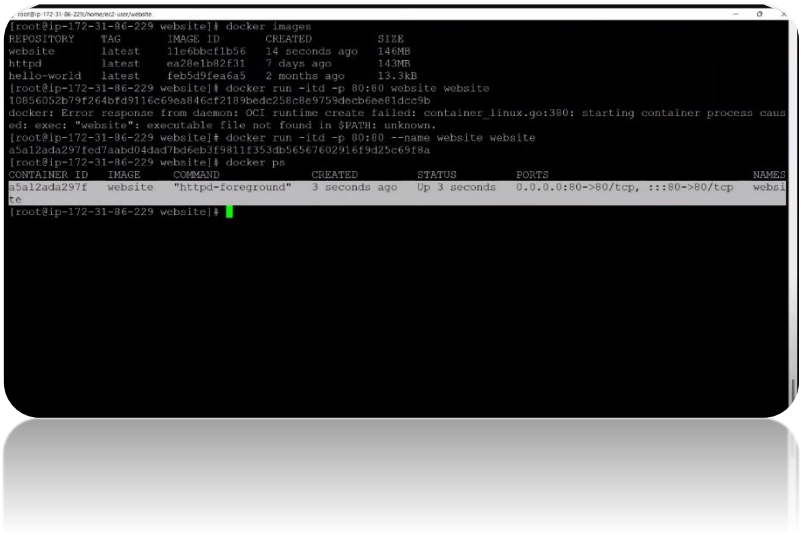

[root@ip-172-31-86-229 website]# cd spourmo/
[root@ip-172-31-86-229 spourmo]# ls
images index.html layout licence.txt pages
[root@ip-172-31-86-229 spourmo]# cp -R * ../.
[root@ip-172-31-86-229 spourmo]# cd ..
[root@ip-172-31-86-229 website]# ls
images index.html layout licence.txt pages spourmo spourmo.zip
[root@ip-172-31-86-229 website]# rm -Rf spourmo.zip spourmo
[root@ip-172-31-86-229 website]# ls
images index.html layout licence.txt pages
[root@ip-172-31-86-229 website]#

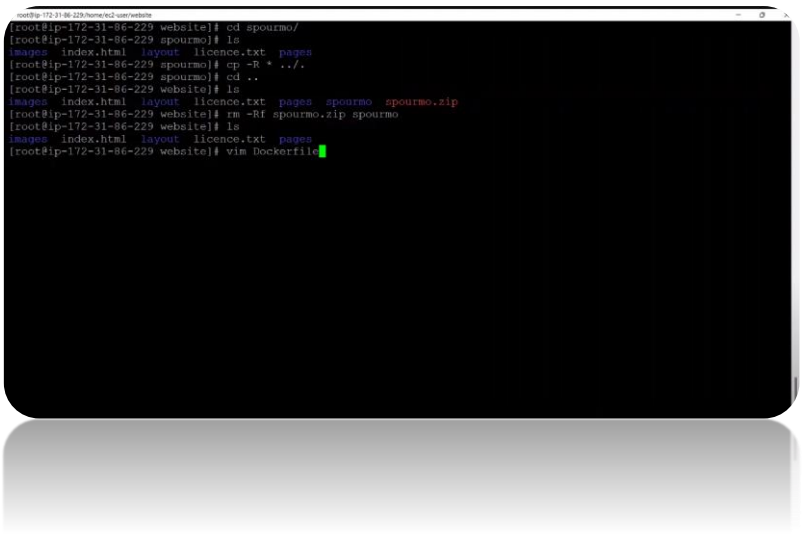

dockerhub
httpd
Explore
Pricing
Sign In
Sign Up
Docker
Containers
Plugins
Filters
1 - 25 of 11,385 results for httpd. Clear search
Best Match
Images
Verified Publisher
Official Images
Categories
Analytics
Application Frameworks
Application Infrastructure
Application Services
Base Images
Databases
DevOps Tools
Featured Images
Messaging Services
httpd
Official Image
Updated 7 days ago
The Apache HTTP Server Project
centos/httpd-24-centos7
By centos • Updated 4 months ago
Platform for running Apache httpd 2.4 or building httpd-based application
manageiq/httpd

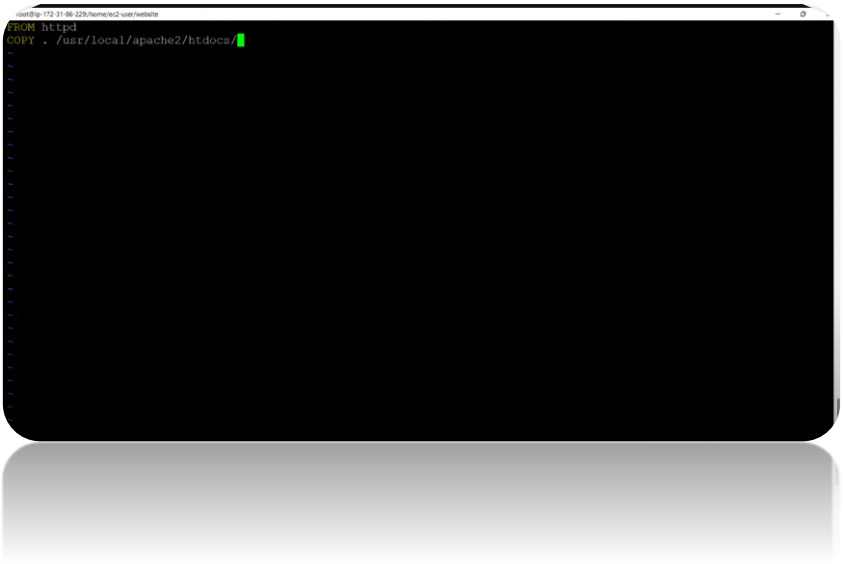

[root@ip-172-31-86-229 website]# cd spourmo/
[root@ip-172-31-86-229 spourmo]# ls
images index.html layout licence.txt pages
[root@ip-172-31-86-229 spourmo]# cp -R * ../.
[root@ip-172-31-86-229 spourmo]# cd ..
[root@ip-172-31-86-229 website]# ls
images index.html layout licence.txt pages spourmo spourmo.zip
[root@ip-172-31-86-229 website]# rm -Rf spourmo.zip spourmo
[root@ip-172-31-86-229 website]# ls
images index.html layout licence.txt pages
[root@ip-172-31-86-229 website]# vim Dockerfile
[root@ip-172-31-86-229 website]# docker build -t website .
Sending build context to Docker daemon 2.08MB
Step 1/2 : FROM httpd
latest: Pulling from library/httpd
e5ae68f74026: Extracting [==========>] 9.83MB/31.37MB
bc36ee1127ec: Download complete
d3576f2b6317: Download complete
f1aa5f54b226: Download complete
aa379c0cedc2: Download complete



6. **Run a Container**: After successfully building the image, you can run a container based on that image with the following command:

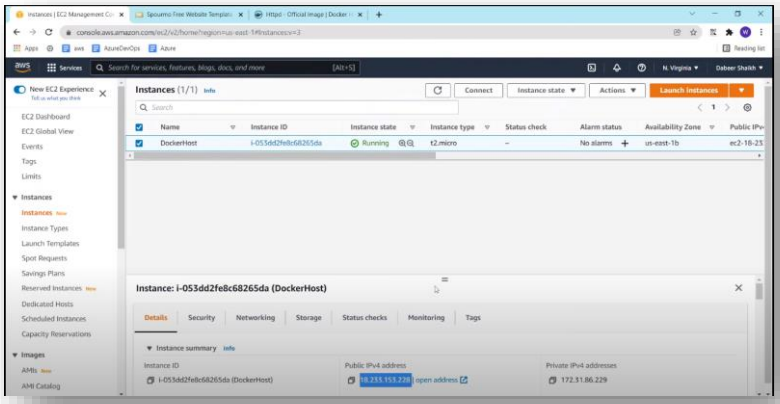






7. **Access Your Web Application**: Open a web browser and navigate to **http://localhost:8080** to access your web application running in the Docker container.

8.



Your web application is now running inside a Docker container. You can further customize your Dockerfile and the application code as needed. Make sure to manage your containers and images appropriately, especially when dealing with production deployments.

Conclusion: We conclude by saying that we built a web app using DocerFile.