



## **APPLICATION CONTAINERIZATION AND ORCHESTRATION LAB**

### **STUDENT**

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### **SUBMITTED TO**

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# AIM: Working with Dockerfile to Build and Push Docker Image

## Steps to Complete:

### 1. Create following Dockerfile

```
package.json  JS index.js  Dockerfile X
Dockerfile > ...
1 FROM node:slim
2 WORKDIR /Desktop
3 COPY . /Desktop
4 RUN npm install
5 EXPOSE 4000
6 CMD node index.js
```

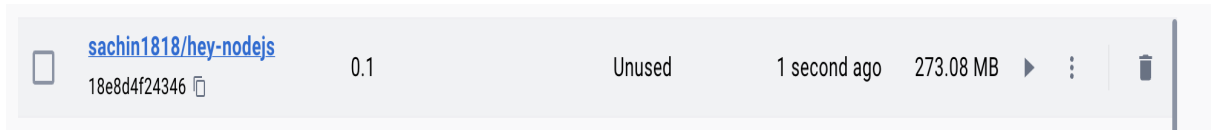
### 2. Now we have dockerized the app, we will Build image from Dockerfile.

```
sachinaggarwal@Sachins-Air hey-nodejs % docker build -t sachin1818/hey-nodejs:0.1 .
[+] Building 33.7s (10/10) FINISHED
=> [internal] load .dockerignore
=> => transferring context: 2B
=> [internal] load build definition from Dockerfile
=> => transferring dockerfile: 130B
=> [internal] load metadata for docker.io/library/node:slim
[auth] library/node:pull token for registry-1.docker.io
=> [1/4] FROM docker.io/library/node:slim@sha256:8d26608b65edb3b0a0e1958a0a5a45209524c4df54bbe21a4ca53548bc97a3a5
=> => resolve docker.io/library/node:slim@sha256:8d26608b65edb3b0a0e1958a0a5a45209524c4df54bbe21a4ca53548bc97a3a5
=> sha256:8d26608b65edb3b0a0e1958a0a5a45209524c4df54bbe21a4ca53548bc97a3a5 1.21kB / 1.21kB
=> sha256:731112a79e8adcc332cde46753c5171c737087053dfc83ddb132c671be24b915 1.37kB / 1.37kB
=> sha256:40d4bd593d1ba8befdb8a93ea41be3b19f742963bdfbd14382f8b38f59780f7b 7.08kB / 7.08kB
=> sha256:e886f0f47ef56fcadb6ecaf2116056bbdb273e0afe07ed034498b198d386c04e 29.16MB / 29.16MB
=> sha256:8d3b40650e0adaef1cb6590bd2f05038f8d3cb42a398443a0ff387fe49d08544 3.36kB / 3.36kB
=> sha256:c51799243528fa68f0ba6b9758cb9abe95f6c04238d1c945d2aca65479607ac2 48.34MB / 48.34MB
=> sha256:00aac49cfe0f01a5992c9a56d701bc900823f50e7f8f2bf7ab22510a5997b411 2.74MB / 2.74MB
=> sha256:6f4ad904cf8eaff1635cc6c135f24d8f07c8cde57565e0a2df7bc4a26d7a45ca 451B / 451B
=> => extracting sha256:e886f0f47ef56fcadb6ecaf2116056bbdb273e0afe07ed034498b198d386c04e
=> => extracting sha256:8d3b40650e0adaef1cb6590bd2f05038f8d3cb42a398443a0ff387fe49d08544
=> => extracting sha256:c51799243528fa68f0ba6b9758cb9abe95f6c04238d1c945d2aca65479607ac2
=> => extracting sha256:00aac49cfe0f01a5992c9a56d701bc900823f50e7f8f2bf7ab22510a5997b411
=> => extracting sha256:6f4ad904cf8eaff1635cc6c135f24d8f07c8cde57565e0a2df7bc4a26d7a45ca
=> [internal] load build context
=> => transferring context: 22.98kB
=> [2/4] WORKDIR /Desktop
=> [3/4] COPY . /Desktop
=> [4/4] RUN npm install
=> exporting to image
=> exporting layers
=> writing image sha256:18e8d4f24346a651f43a99083bc422f67343db6c41680db3375f7bffb77731d2
=> naming to docker.io/sachin1818/hey-nodejs:0.1

What's Next?
View summary of image vulnerabilities and recommendations -> docker scout quickview

sachinaggarwal@Sachins-Air hey-nodejs % docker run -d -p 4000:4000 sachin1818/hey-no
dejs:0.1 .
b4b0b18b75b706748763ead482a2d56b33cdf80604c5a41c89351c6f6e056a1e
```

3. Create an account on Dockerhub and create a repository in it.



4. Tag the recently created image using the following command.
5. Login to Dockerhub from the console using the following command.

```
sachinaggarwal@Sachins-Air hey-nodejs % docker login
Login with your Docker ID to push and pull images from Docker Hub. If you don't have a Docker ID, head over to https://hub.docker.com to create one.
Username: sachin1818
Password:
Login Succeeded
```

6. Now push the image on Docker Hub using the following command.

```
sachinaggarwal@Sachins-Air hey-nodejs % docker tag sachin1818/hey-nodejs:0.1 sachin1818/hey-nodejs:latest
sachinaggarwal@Sachins-Air hey-nodejs % docker push sachin1818/hey-nodejs:latest

The push refers to repository [docker.io/sachin1818/hey-nodejs]
ca3edd8a0ef2: Pushed
d91b79ba6a6c: Pushed
61a30eac70a8: Pushed
2283386eefee: Mounted from library/node
fd2daebc0b21: Mounted from library/node
243477fbf37a: Mounted from library/node
f54f7fc9d0ec: Mounted from library/node
311627f8702d: Mounted from library/node
latest: digest: sha256:4b803a5c72398955119e49e5cebbbc278f9d99bfe3842b84f645d9ee20505c955 size: 1992
```



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Displaying 1 to 1 repositories



sachin1818/hey-nodejs · 0 · 0

By [sachin1818](#) · Updated 3 minutes ago

Image

7. Pull and Run the container of your deployed image on docker hub.

```
● sachinaggarwal@Sachins-Air hey-nodejs % docker run -d sachin1818/hey-nodejs  
6d69ec6cc318e1ccc21b616069032b1a8acc7c63cea36dd0c4d7a5ca3d6ada7d
```