

### Task Problem 3 :

Create a docker compose to up mysql container, and

<https://github.com/sabreensalama/dockerize-node-app-task> which depend on mysqldb.

Add volume for mysqldb

### Solutions :

1 – clone the project : <https://github.com/sabreensalama/dockerize-node-app-task>

2 – create Dockerfile

3 – Create docker-compose.yml

4 – run docker-compose up -d >> to run both services and access the localhost page

### The Results :

1 – clone the project

```
amr@DESKTOP-D5VVHN0: ~/Docker_Projects/Problem_3$ ls
amr@DESKTOP-D5VVHN0:~/Docker_Projects/Problem_3$ git clone https://github.com/sabreensalama/dockerize-node-app-task
Cloning into 'dockerize-node-app-task'...
remote: Enumerating objects: 12, done.
remote: Counting objects: 100% (12/12), done.
remote: Compressing objects: 100% (10/10), done.
remote: Total 12 (delta 1), reused 0 (delta 0), pack-reused 0
Receiving objects: 100% (12/12), done.
Resolving deltas: 100% (1/1), done.
amr@DESKTOP-D5VVHN0:~/Docker_Projects/Problem_3$ cd dockerize-node-app-task/
amr@DESKTOP-D5VVHN0:~/Docker_Projects/Problem_3/dockerize-node-app-task$ vim Dockerfile
amr@DESKTOP-D5VVHN0:~/Docker_Projects/Problem_3/dockerize-node-app-task$ vim docker-compose.yml
```

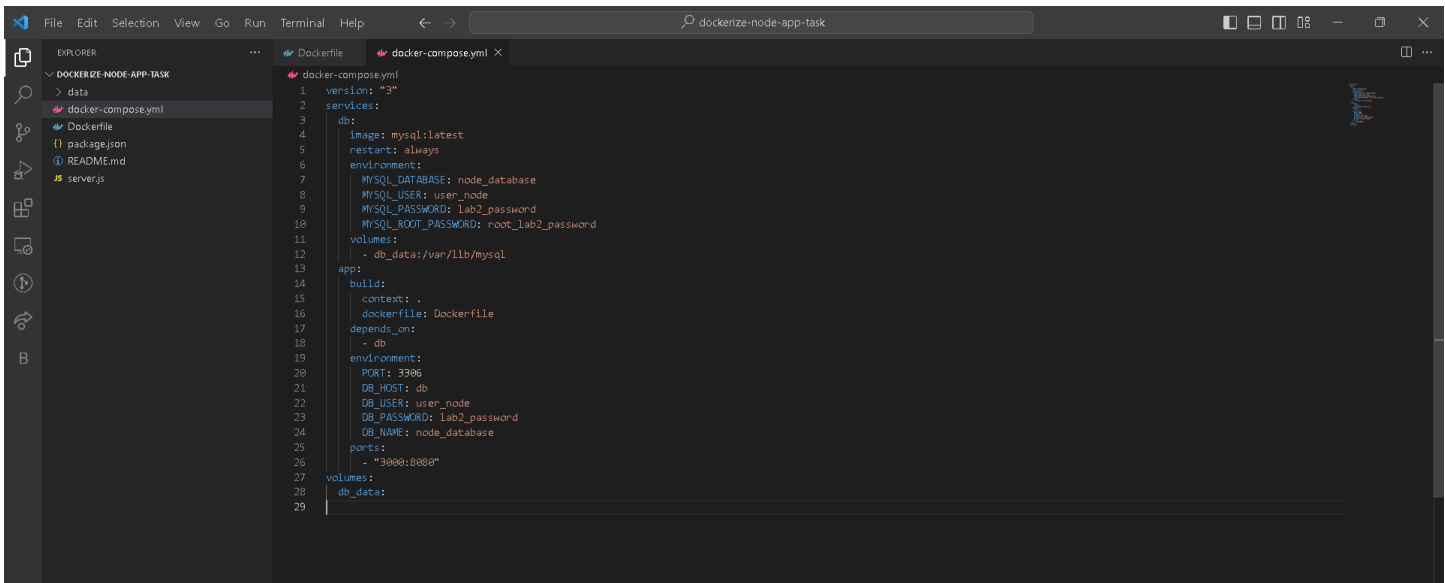
2 – Dockerfile

```
File Edit Selection View Go Run Terminal Help
dockerize-node-app-task

EXPLORER
DOCKERTIZE-NODE-APP-TASK
  data
  docker-compose.yml
  Dockerfile
  package.json
  README.md
  server.js

Dockerfile
1 # Use a base image
2 FROM node:14-alpine
3
4 # Set the working directory inside the container
5 WORKDIR /app
6
7 # Copy package.json and package-lock.json to the working directory
8 COPY package*.json ./
9
10 # Install dependencies
11 RUN npm install
12
13 # Copy the entire application code to the working directory
14 COPY . .
15
16 # Expose the desired port
17 EXPOSE 8080
18
19 # Set the startup command
20 CMD ["npm", "start"]
21
```

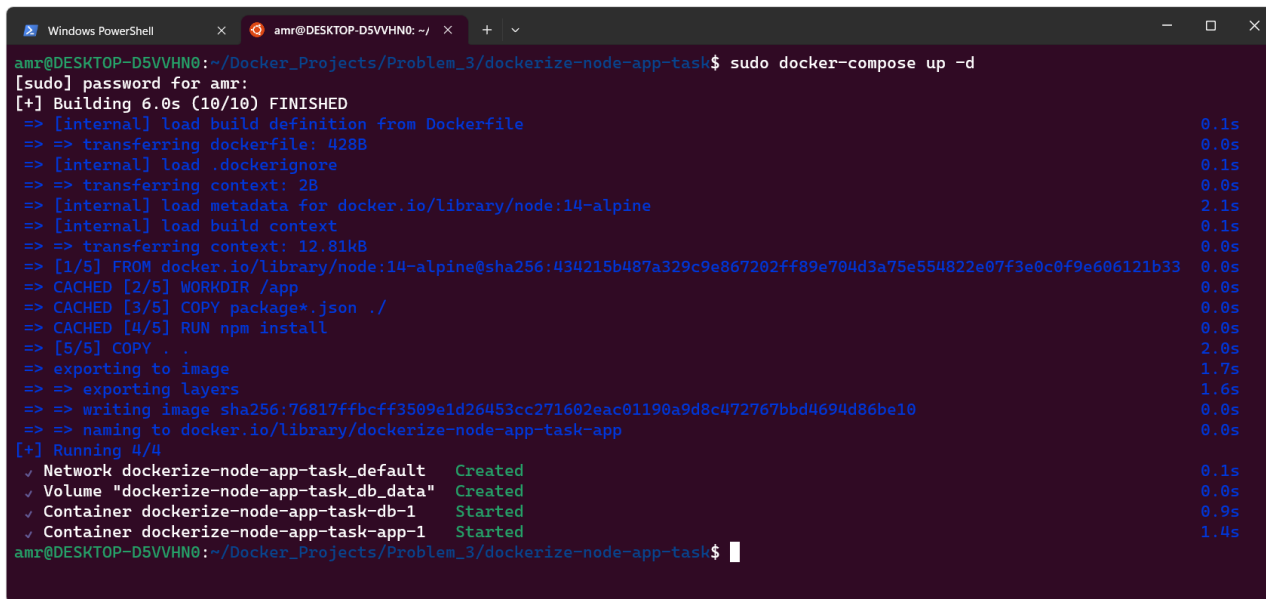
### 3 - docker-compose.yml



The screenshot shows a VS Code editor window with the file explorer on the left and the editor on the right. The file explorer shows a project named 'DOCKERIZE-NODE-APP-TASK' with files 'data', 'docker-compose.yml', 'Dockerfile', 'package.json', 'README.md', and 'server.js'. The editor displays the 'docker-compose.yml' file with the following content:

```
1 version: "3"
2 services:
3   db:
4     image: mysql:latest
5     restart: always
6     environment:
7       MYSQL_DATABASE: node_database
8       MYSQL_USER: user_node
9       MYSQL_PASSWORD: lab2_password
10      MYSQL_ROOT_PASSWORD: root_lab2_password
11     volumes:
12       - db_data:/var/lib/mysql
13
14   app:
15     build:
16       context: .
17       dockerfile: Dockerfile
18     depends_on:
19       - db
20     environment:
21       PORT: 3000
22       DB_HOST: db
23       DB_USER: user_node
24       DB_PASSWORD: lab2_password
25       DB_NAME: node_database
26     ports:
27       - "3000:8080"
28     volumes:
29       - db_data:
```

### 4 – Access Localhost page with port 3000 after run docker-compose up



The screenshot shows a Windows PowerShell terminal window with the following output:

```
amr@DESKTOP-D5VVHN0: ~/Docker_Projects/Problem_3/dockerize-node-app-task$ sudo docker-compose up -d
[sudo] password for amr:
[+] Building 6.0s (10/10) FINISHED
=> [internal] load build definition from Dockerfile                                0.1s
=> => transferring dockerfile: 428B                                              0.0s
=> [internal] load .dockerignore                                                  0.1s
=> => transferring context: 2B                                                  0.0s
=> [internal] load metadata for docker.io/library/node:14-alpine                 2.1s
=> [internal] load build context                                                  0.1s
=> => transferring context: 12.81kB                                             0.0s
=> [1/5] FROM docker.io/library/node:14-alpine@sha256:434215b487a329c9e867202ff89e704d3a75e554822e07f3e0c0f9e606121b33 0.0s
=> CACHED [2/5] WORKDIR /app                                                    0.0s
=> CACHED [3/5] COPY package*.json ./                                           0.0s
=> CACHED [4/5] RUN npm install                                                  0.0s
=> [5/5] COPY . .                                                               2.0s
=> exporting to image                                                            1.7s
=> => exporting layers                                                            1.6s
=> => writing image sha256:76817ffbcff3509e1d26453cc271602eac01190a9d8c472767bbd4694d86be10 0.0s
=> => naming to docker.io/library/dockerize-node-app-task-app                  0.0s
[+] Running 4/4
✓ Network dockerize-node-app-task_default   Created                                0.1s
✓ Volume "dockerize-node-app-task-db_data" Created                                0.0s
✓ Container dockerize-node-app-task-db-1    Started                                0.9s
✓ Container dockerize-node-app-task-app-1   Started                                1.4s
amr@DESKTOP-D5VVHN0: ~/Docker_Projects/Problem_3/dockerize-node-app-task$
```