

Problem 4:

1. Create a Dockerfile to deploy weather-app application (https://github.com/sabreensalama/Good_Reads_App):
2. You will use node:alpine as the base image.
3. create a directory for the source code: /node/weather-app.
4. Add the code from src to /node/weather-app on the image.
5. Set /node/weather-app as the working directory.
6. Execute a npm install to install the dependencies.
7. Create an argument called APP_VERSION that will set the version of the application.
8. Set an environment variable called NODE_ENV and set it to production.
9. Copy /node/weather-app from the source build stage to /var/weather-app.
10. Set /var/weather-app as the working directory.
11. Expose port 3000.
12. Set. /bin/www as the entrypoint.
13. Build the image.

Solution:

```
[root@localhost Good_Reads_App]# ls
app.js  bin  docker-compose.yml  Dockerfile  helpers  middlewares  models  node_modules  package.json  package-lock.json  public  README.md  routes  server  views
[root@localhost Good_Reads_App]# rm -rf docker-compose.yml
[root@localhost Good_Reads_App]# ls
app.js  bin  Dockerfile  helpers  middlewares  models  node_modules  package.json  package-lock.json  public  README.md  routes  server  views
[root@localhost Good_Reads_App]# docker build -t prob4-v1 .
Sending build context to Docker daemon 53.32MB
Step 1/12 : FROM node:10-alpine
--> aa67ba258e18
Step 2/12 : RUN mkdir -p /node/weather-app
--> Using cache
--> 1d17ef4c9449
Step 3/12 : WORKDIR /node/weather-app
--> Using cache
--> a880b94329bd
Step 4/12 : COPY . ./
--> 7eae0a49ffa
Step 5/12 : RUN npm install
--> Running in 6a57ce8af2ce
audited 423 packages in 2.632s
4 packages are looking for funding
  run `npm fund` for details
found 46 vulnerabilities (3 low, 10 moderate, 18 high, 15 critical)
  run `npm audit fix` to fix them, or `npm audit` for details
Removing intermediate container 6a57ce8af2ce
--> a5777e326944
Step 6/12 : ENV APP_VERSION=latest
--> Running in eafbd2b2737b
Removing intermediate container eafbd2b2737b
--> 8d3d7fa9cdf
Step 7/12 : ENV NODE_ENV=production
--> Running in f76f28547130
Removing intermediate container f76f28547130
--> 9209f781897b
Step 8/12 : RUN cp -r /node/weather-app /var/weather-app
--> Running in 6d2680781607
Removing intermediate container 6d2680781607
```

```
6bb56b0c9863 mysql:latest "docker-entrypoint.sh" 3 hours ago up 3 hours
[root@localhost Good_Reads_App]# cat Dockerfile
# extend base image of node
FROM node:10-alpine

# make dir app working dir
RUN mkdir -p /node/weather-app
WORKDIR /node/weather-app

# copy package content
COPY . ./

# run npm install
RUN npm install

#add env of APP_VERSION
ENV APP_VERSION=latest

#add env of NODE_ENV
ENV NODE_ENV=production

#copy weather-app
RUN cp -r /node/weather-app /var/weather-app

# make dir app working dir
WORKDIR /var/weather-app

# expose app
EXPOSE 3000

#enter point
ENTRYPOINT [ "./bin/www" ]

# run app
CMD "npm start"
[root@localhost Good_Reads_App]#
```