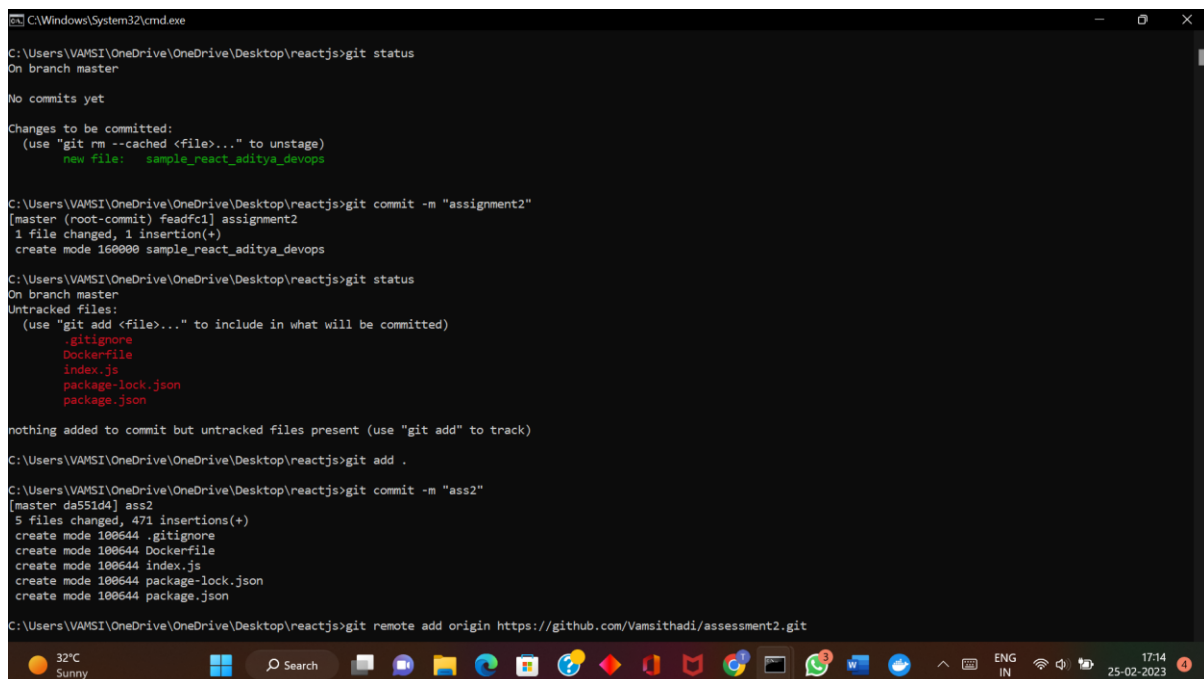


Question1 : You are provided with a ReactJS application and it can be found on the repository with the link provided below.
Create a dockerfile for this React application and also create image and run the image as container and the output of the ReactJS application should be shown on the localhost.

Link to Github : https://github.com/snehal-herovired/sample_react_aditya_devops

Provide the screenshots of each process from creating the image and running the container using appropriate commands.



```
C:\Windows\System32\cmd.exe
C:\Users\VAMSI\OneDrive\OneDrive\Desktop\reactjs>git status
On branch master

No commits yet

Changes to be committed:
  (use "git rm --cached <file>..." to unstage)
    new file:   sample_react_aditya_devops

C:\Users\VAMSI\OneDrive\OneDrive\Desktop\reactjs>git commit -m "assignment2"
[master (root-commit) feadfc1] assignment2
 1 file changed, 1 insertion(+)
 create mode 160000 sample_react_aditya_devops

C:\Users\VAMSI\OneDrive\OneDrive\Desktop\reactjs>git status
On branch master

Untracked files:
  (use "git add <file>..." to include in what will be committed)
        .gitignore
        Dockerfile
        index.js
        package-lock.json
        package.json

nothing added to commit but untracked files present (use "git add" to track)
C:\Users\VAMSI\OneDrive\OneDrive\Desktop\reactjs>git add .
C:\Users\VAMSI\OneDrive\OneDrive\Desktop\reactjs>git commit -m "ass2"
[master da551d4] ass2
 5 files changed, 471 insertions(+)
 create mode 100644 .gitignore
 create mode 100644 Dockerfile
 create mode 100644 index.js
 create mode 100644 package-lock.json
 create mode 100644 package.json

C:\Users\VAMSI\OneDrive\OneDrive\Desktop\reactjs>git remote add origin https://github.com/Vamsithadi/assessment2.git
```

```
C:\Windows\System32\cmd.exe

C:\Users\VAMSI\OneDrive\OneDrive\Desktop\reactjs>git status
On branch master

No commits yet

Changes to be committed:
  (use "git rm --cached <file>..." to unstage)
        new file:   sample_react_aditya_devops

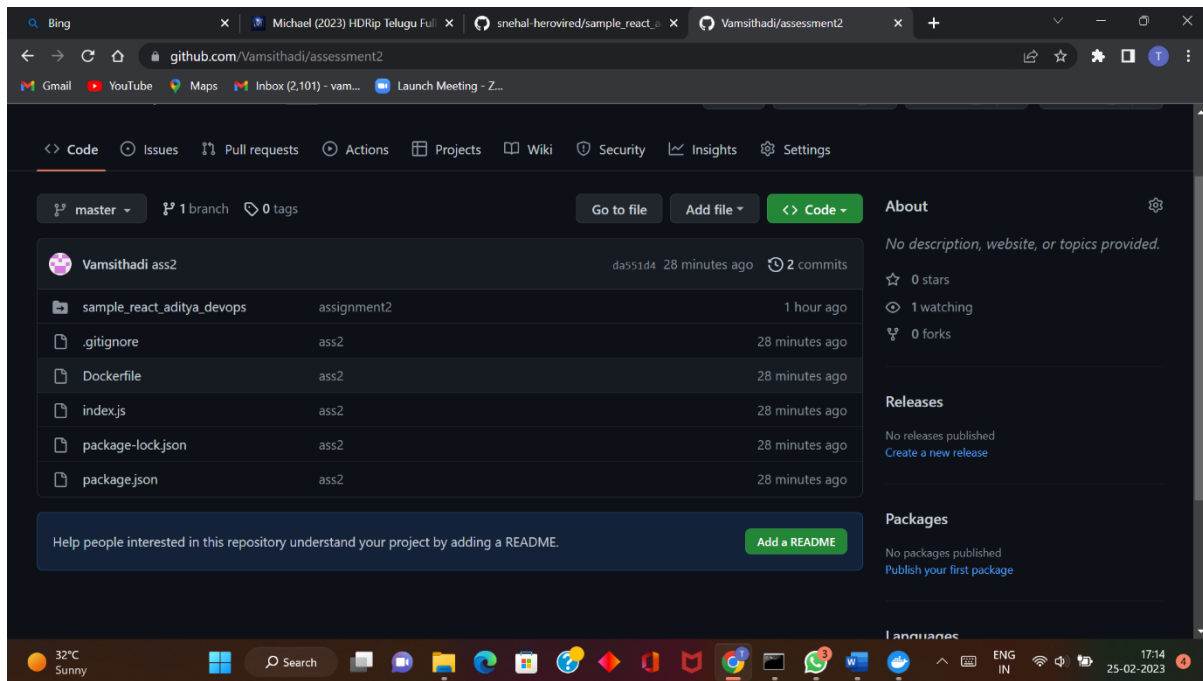
C:\Users\VAMSI\OneDrive\OneDrive\Desktop\reactjs>git commit -m "assignment2"
[master (root-commit) feadfcl] assignment2
1 file changed, 1 insertion(+)
 create mode 160000 sample_react_aditya_devops

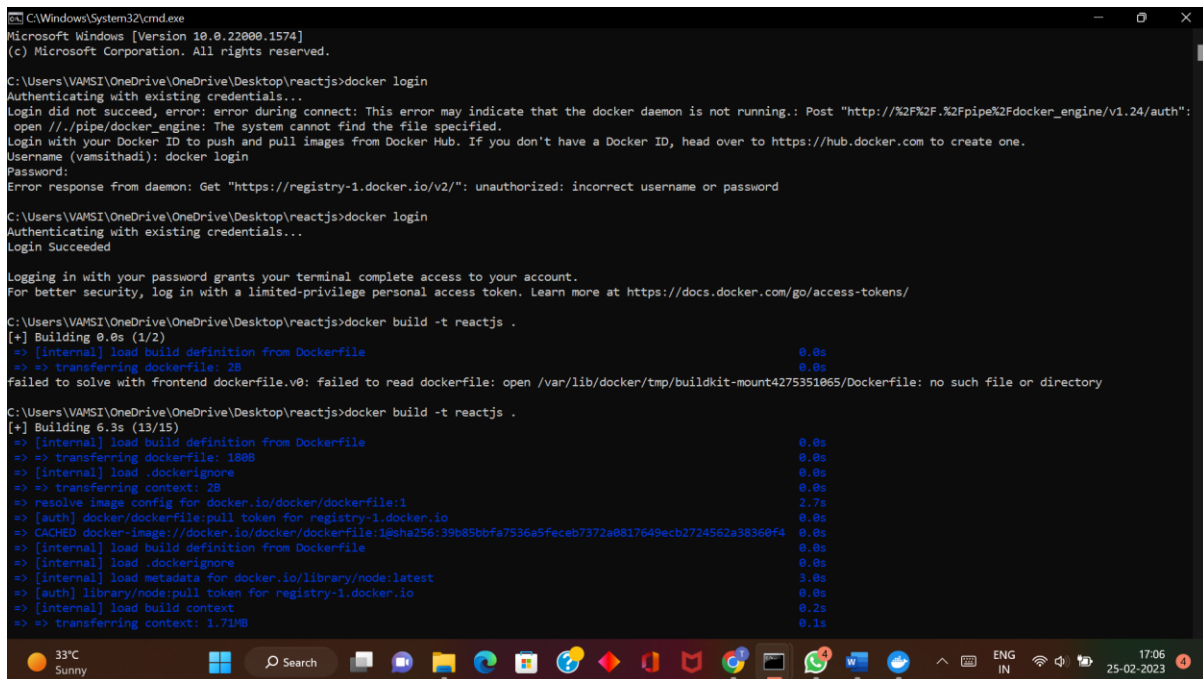
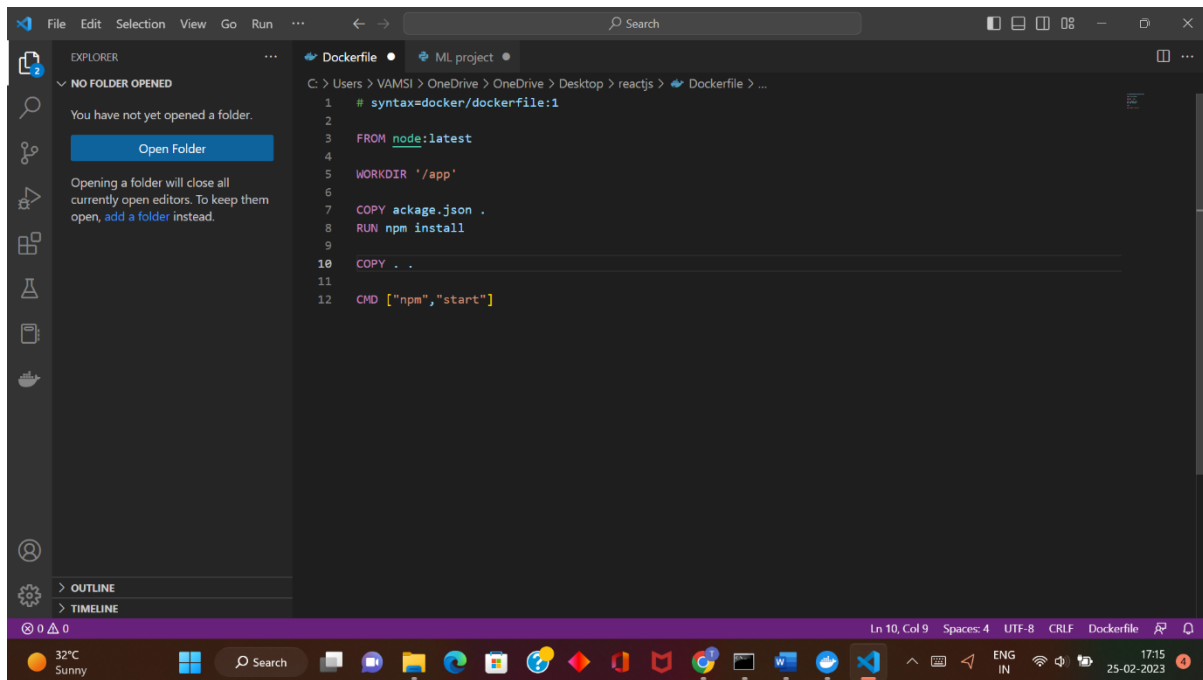
C:\Users\VAMSI\OneDrive\OneDrive\Desktop\reactjs>git status
On branch master
Untracked files:
  (use "git add <file>..." to include in what will be committed)
        .gitignore
        Dockerfile
        index.js
        package-lock.json
        package.json

nothing added to commit but untracked files present (use "git add" to track)

C:\Users\VAMSI\OneDrive\OneDrive\Desktop\reactjs>git add .
C:\Users\VAMSI\OneDrive\OneDrive\Desktop\reactjs>git commit -m "ass2"
[master da551d4] ass2
5 files changed, 471 insertions(+)
 create mode 100644 .gitignore
 create mode 100644 Dockerfile
 create mode 100644 index.js
 create mode 100644 package-lock.json
 create mode 100644 package.json

C:\Users\VAMSI\OneDrive\OneDrive\Desktop\reactjs>git remote add origin https://github.com/Vamsithadi/assessment2.git
```





```
C:\Windows\System32\cmd.exe
=> => extracting sha256:17901317c11cf8436da67f5f0c6215f821f5b7cc25983d709f526da4d51af298 0.0s
=> => sha256:c5692662363a3304c9ed01bbe1540f7b12ab27f61c553ab12b0facc6e4509428 451B / 451B 1.2s
=> => extracting sha256:cd2a67b2d44205d05f0aac83fafa0ea365a6cd786ea6a62e8f0e5e6349a2acfb 0.9s
=> => extracting sha256:0871896c237072d74191141d01c547248b539a6905824531029f19255aef1e2c 0.1s
=> => extracting sha256:c5692662363a3304c9ed01bbe1540f7b12ab27f61c553ab12b0facc6e4509428 0.0s
=> [2/5] WORKDIR /app 0.3s
=> [3/5] COPY package.json . 0.0s
=> [4/5] RUN npm install 2.9s
=> [5/5] COPY . . 0.0s
=> exporting to image 0.1s
=> => exporting layers 0.1s
=> => writing image sha256:5ce86929e4674e05ad46920e384b7083dc49d0cdee6cfa9b22b30ce34f378a4 0.0s
=> => naming to docker.io/library/reactjs 0.0s

Use 'docker scan' to run Snyk tests against images to find vulnerabilities and learn how to fix them

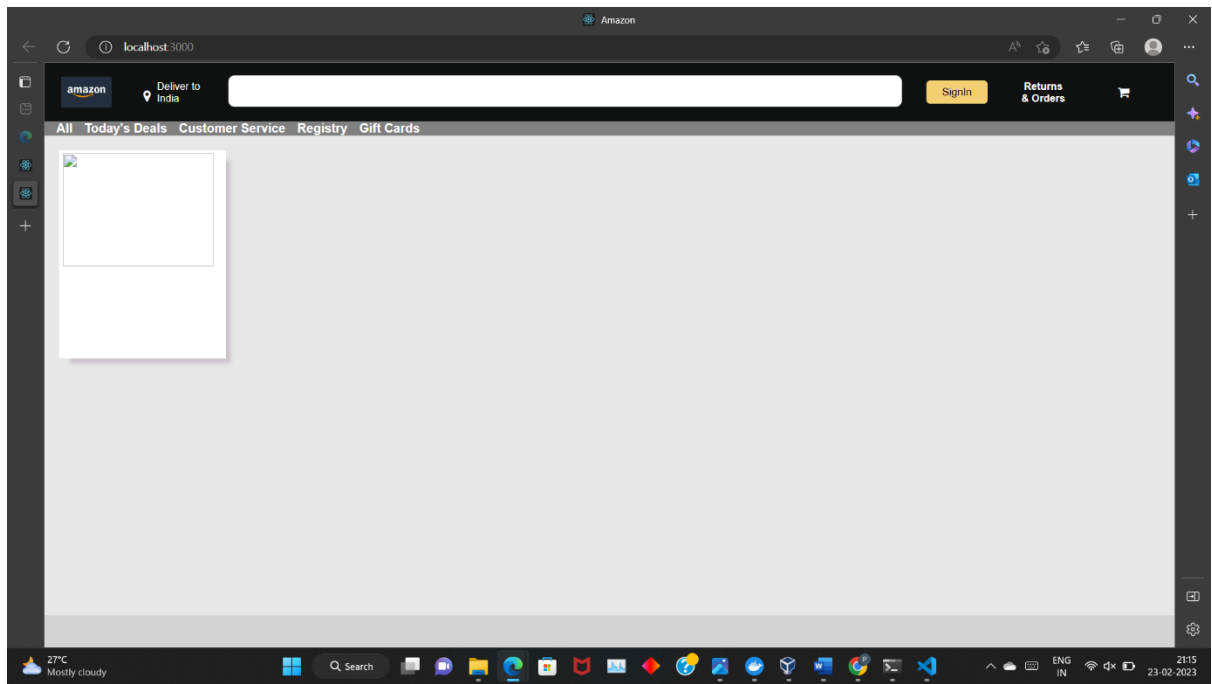
C:\Users\VAMSI\OneDrive\OneDrive\Desktop\reactjs>docker images
REPOSITORY TAG IMAGE ID CREATED SIZE
reactjs latest 5ce86929e467 About a minute ago 1.01GB
vamsithadi/todaytask latest 242657b03ab4 44 hours ago 919MB
vamsithadi/todaytask <none> f8434c864074 44 hours ago 917MB
vamsithadi/todaytask <none> f171bb5ad047 45 hours ago 917MB
vamsithadi/todaytask <none> bb3dc5108a8f 45 hours ago 917MB
vamsithadi/todaytask <none> 66a354f5fb59 2 days ago 917MB
nodejs latest 67a3d3903bf0 2 days ago 919MB
vamsi/nodejs latest 67a3d3903bf0 2 days ago 919MB
vamsithadi/nodejs <none> 67a3d3903bf0 2 days ago 919MB
vamsithadi/todaytask <none> 67a3d3903bf0 2 days ago 919MB
vamsi latest d02ba7205bb5 2 days ago 917MB
vamsithadi/nodejs latest d02ba7205bb5 2 days ago 917MB
vamsithadi/vamsi latest 43e723364a9c 11 days ago 156MB
vamsinodeapp latest 7708fb68a11a 12 days ago 919MB
vamsithadi/vamsinodeapp latest 7708fb68a11a 12 days ago 919MB
python latest f92346e0c39e 2 weeks ago 925MB
ubuntu latest 58db3edaf2be 4 weeks ago 77.8MB

C:\Users\VAMSI\OneDrive\OneDrive\Desktop\reactjs>docker run -d -p 3000:3000 reactjs
816b227ec52cbbacc2b5a7e89272858251a67d49f73614ca6b7f1246bb10dc5

C:\Users\VAMSI\OneDrive\OneDrive\Desktop\reactjs>
```

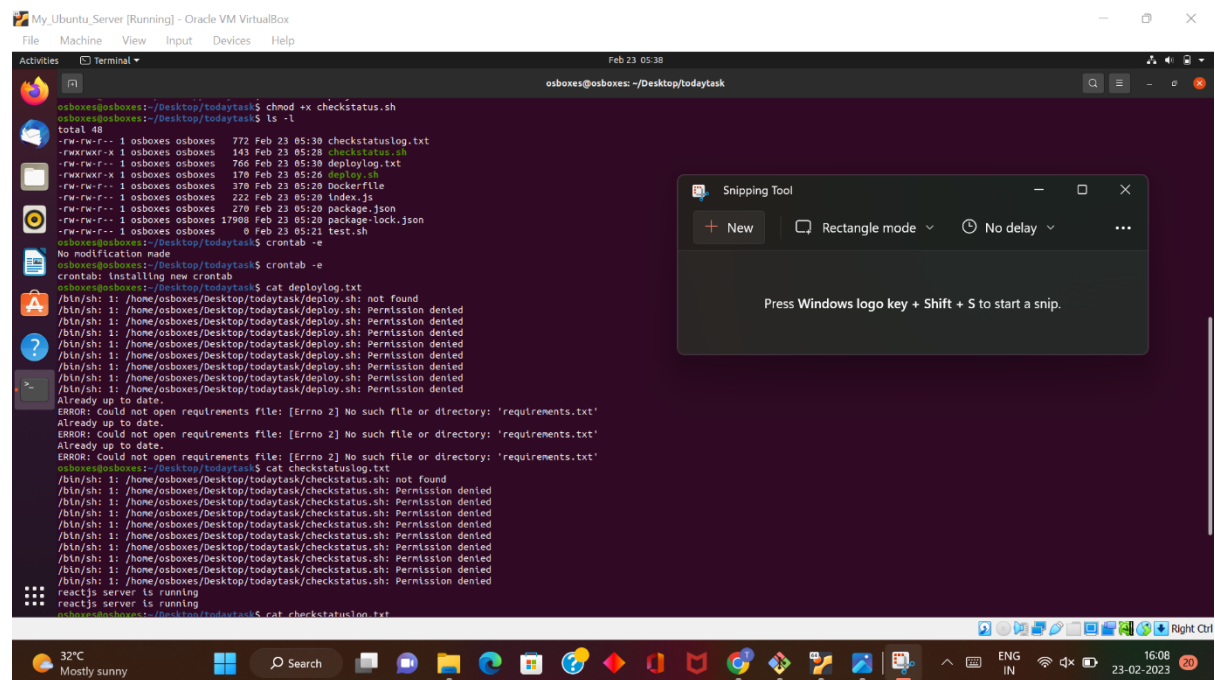
```
C:\Windows\System32\cmd.exe
=> => sha256:cd2a67b2d44205d05f0aac83fafa0ea365a6cd786ea6a62e8f0e5e6349a2acfb 0B / 46.16MB 0.1s
=> => sha256:d903b23148dccc63152cb2bdf6fdfa062842dccc49f0d45558ca06a8ab14 1.21kB / 1.21kB 0.0s
=> => sha256:1b2a06687eb5a8a3566724d59ddccc8a123c19e681aacc31274ccc97f78 2.21kB / 2.21kB 0.0s
=> => sha256:17901317c11cf8436da67f5f0c6215f821f5b7cc25983d709f526da4d51af298 0B / 4.20kB 0.1s
=> => sha256:0871896c237072d74191141d01c547248b539a6905824531029f19255aef1e2c 0B / 2.28MB 0.1s
=> => sha256:12081f12b46f1db5b158c8699709564a2e5e11964b511f807dbf49b33e9ed1 7.51kB / 7.51kB 0.0s
=> CACHED [2/5] WORKDIR /app 0.0s
=> ERROR [3/5] COPY package.json . 0.0s
-----
> [3/5] COPY package.json .:
-----
failed to compute cache key: "/package.json" not found: not found

C:\Users\VAMSI\OneDrive\OneDrive\Desktop\reactjs>docker build -t reactjs .
[+] Building 17.6s (16/16) FINISHED
=> [internal] load build definition from Dockerfile 0.0s
=> => transferring dockerfile: 32B 0.0s
=> [internal] load .dockerignore 0.0s
=> => transferring context: 2B 0.0s
=> resolve image config for docker.io/docker/dockerfile:1 2.4s
=> [auth] docker/dockerfile:pull token for registry-1.docker.io 0.0s
=> CACHED docker-image://docker.io/docker/dockerfile:1@sha256:39085bbfa7536a5fecbe7372a0817649ecb2724562a38360f4 0.0s
=> [internal] load build definition from Dockerfile 0.0s
=> [internal] load .dockerignore 0.0s
=> [internal] load metadata for docker.io/library/node:latest 1.7s
=> [auth] library/node:pull token for registry-1.docker.io 0.0s
=> [internal] load build context 0.0s
=> => transferring context: 35.97kB 0.0s
=> [1/5] FROM docker.io/library/node:latest@sha256:d903b23148dccc63152cb2bdf6fdfa062842dccc49f0d45558ca06a8ab14 9.7s
=> => resolve docker.io/library/node:latest@sha256:d903b23148dccc63152cb2bdf6fdfa062842dccc49f0d45558ca06a8ab14 0.0s
=> => sha256:cd2a67b2d44205d05f0aac83fafa0ea365a6cd786ea6a62e8f0e5e6349a2acfb 46.16MB / 46.16MB 8.4s
=> => sha256:0871896c237072d74191141d01c547248b539a6905824531029f19255aef1e2c 2.28MB / 2.28MB 0.7s
=> => sha256:d903b23148dccc63152cb2bdf6fdfa062842dccc49f0d45558ca06a8ab14 1.21kB / 1.21kB 0.0s
=> => sha256:1b2a06687eb5a8a3566724d59ddccc8a123c19e681aacc31274ccc97f78 2.21kB / 2.21kB 0.0s
=> => sha256:17901317c11cf8436da67f5f0c6215f821f5b7cc25983d709f526da4d51af298 4.20kB / 4.20kB 0.7s
=> => sha256:12081f12b46f1db5b158c8699709564a2e5e11964b511f807dbf49b33e9ed1 7.51kB / 7.51kB 0.0s
=> => extracting sha256:17901317c11cf8436da67f5f0c6215f821f5b7cc25983d709f526da4d51af298 0.0s
=> => sha256:c5692662363a3304c9ed01bbe1540f7b12ab27f61c553ab12b0facc6e4509428 451B / 451B 1.2s
=> => extracting sha256:cd2a67b2d44205d05f0aac83fafa0ea365a6cd786ea6a62e8f0e5e6349a2acfb 0.9s
=> => extracting sha256:0871896c237072d74191141d01c547248b539a6905824531029f19255aef1e2c 0.1s
```

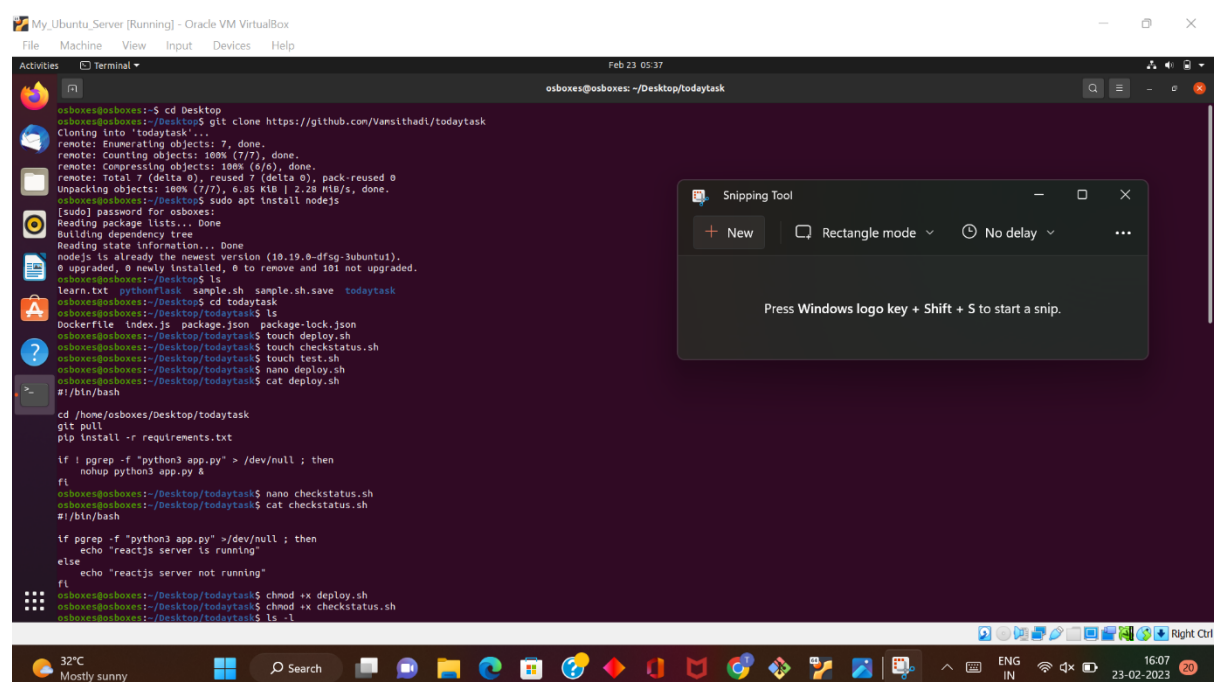


2. Describe the CI-CD pipeline and also describe the role of Jenkins here. You have to create a manual ci-cd pipeline through bash script and cron jobs for a nodejs simple application.

For the Node JS application you can have the same application provided to you on the repository here :<https://github.com/snehal-herovired/LearningGlt>.



```
osboxes@osboxes: ~/Desktop/todaytask
total 48
-rw-rw-r-- 1 osboxes osboxes 772 Feb 23 05:30 checkstatuslog.txt
-rwxrwxr-x 1 osboxes osboxes 143 Feb 23 05:28 checkstatus.sh
-rw-rw-r-- 1 osboxes osboxes 766 Feb 23 05:30 deploylog.txt
-rwxrwxr-x 1 osboxes osboxes 178 Feb 23 05:26 deploy.sh
-rw-rw-r-- 1 osboxes osboxes 378 Feb 23 05:20 Dockerfile
-rw-rw-r-- 1 osboxes osboxes 222 Feb 23 05:20 index.js
-rw-rw-r-- 1 osboxes osboxes 270 Feb 23 05:20 package.json
-rw-rw-r-- 1 osboxes osboxes 17908 Feb 23 05:20 package-lock.json
-rw-rw-r-- 1 osboxes osboxes 0 Feb 23 05:21 test.sh
osboxes@osboxes: ~/Desktop/todaytask$ crontab -e
No modification made
osboxes@osboxes: ~/Desktop/todaytask$ crontab -e
crontab: installing new crontab
osboxes@osboxes: ~/Desktop/todaytask$ cat deploylog.txt
/btn/sh: 1: /home/osboxes/Desktop/todaytask/deploy.sh: not found
/btn/sh: 1: /home/osboxes/Desktop/todaytask/deploy.sh: Permission denied
/btn/sh: 1: /home/osboxes/Desktop/todaytask/deploy.sh: Permission denied
/btn/sh: 1: /home/osboxes/Desktop/todaytask/deploy.sh: Permission denied
/btn/sh: 1: /home/osboxes/Desktop/todaytask/deploy.sh: Permission denied
/btn/sh: 1: /home/osboxes/Desktop/todaytask/deploy.sh: Permission denied
/btn/sh: 1: /home/osboxes/Desktop/todaytask/deploy.sh: Permission denied
/btn/sh: 1: /home/osboxes/Desktop/todaytask/deploy.sh: Permission denied
Already up to date.
ERROR: Could not open requirements file: [Errno 2] No such file or directory: 'requirements.txt'
Already up to date.
ERROR: Could not open requirements file: [Errno 2] No such file or directory: 'requirements.txt'
Already up to date.
ERROR: Could not open requirements file: [Errno 2] No such file or directory: 'requirements.txt'
osboxes@osboxes: ~/Desktop/todaytask$ cat checkstatuslog.txt
/btn/sh: 1: /home/osboxes/Desktop/todaytask/checkstatus.sh: not found
/btn/sh: 1: /home/osboxes/Desktop/todaytask/checkstatus.sh: Permission denied
/btn/sh: 1: /home/osboxes/Desktop/todaytask/checkstatus.sh: Permission denied
/btn/sh: 1: /home/osboxes/Desktop/todaytask/checkstatus.sh: Permission denied
/btn/sh: 1: /home/osboxes/Desktop/todaytask/checkstatus.sh: Permission denied
/btn/sh: 1: /home/osboxes/Desktop/todaytask/checkstatus.sh: Permission denied
/btn/sh: 1: /home/osboxes/Desktop/todaytask/checkstatus.sh: Permission denied
/btn/sh: 1: /home/osboxes/Desktop/todaytask/checkstatus.sh: Permission denied
/btn/sh: 1: /home/osboxes/Desktop/todaytask/checkstatus.sh: Permission denied
reactjs server is running
osboxes@osboxes: ~/Desktop/todaytask$ cat checkstatuslog.txt
```



```
osboxes@osboxes: ~/Desktop/todaytask
osboxes@osboxes:~/Desktop$ cd Desktop
osboxes@osboxes:~/Desktop$ git clone https://github.com/Vansithadi/todaytask
Cloning into 'todaytask'...
remote: Enumerating objects: 7, done.
remote: Counting objects: 100% (7/7), done.
remote: Compressing objects: 100% (6/6), done.
remote: total 7 (delta 0), reused 7 (delta 0), pack-reused 0
Unpacking objects: 100% (7/7), 6.85 MiB | 2.28 MiB/s, done.
osboxes@osboxes:~/Desktop$ sudo apt install nodejs
[sudo] password for osboxes:
Reading package lists... Done
Building dependency tree
Reading state information... Done
nodejs is already the newest version (10.19.0-dfsg-3ubuntu1).
0 upgraded, 0 newly installed, 0 to remove and 101 not upgraded.
osboxes@osboxes:~/Desktop$ ls
learn.txt python3 sample.sh sample.sh.save todaytask
osboxes@osboxes:~/Desktop$ cd todaytask
osboxes@osboxes:~/Desktop/todaytask$ ls
Dockerfile index.js package.json package-lock.json
osboxes@osboxes:~/Desktop/todaytask$ touch checkstatus.sh
osboxes@osboxes:~/Desktop/todaytask$ touch test.sh
osboxes@osboxes:~/Desktop/todaytask$ nano deploy.sh
osboxes@osboxes:~/Desktop/todaytask$ cat deploy.sh
#!/bin/bash
cd /home/osboxes/Desktop/todaytask
git pull
pip install -r requirements.txt
if ! pgrep -f "python3 app.py" > /dev/null ; then
    nohup python3 app.py &
fi
osboxes@osboxes:~/Desktop/todaytask$ nano checkstatus.sh
osboxes@osboxes:~/Desktop/todaytask$ cat checkstatus.sh
#!/bin/bash
if ! pgrep -f "python3 app.py" > /dev/null ; then
    echo "reactjs server is running"
else
    echo "reactjs server not running"
fi
osboxes@osboxes:~/Desktop/todaytask$ chmod +x deploy.sh
osboxes@osboxes:~/Desktop/todaytask$ chmod +x checkstatus.sh
osboxes@osboxes:~/Desktop/todaytask$ ls -l
```

