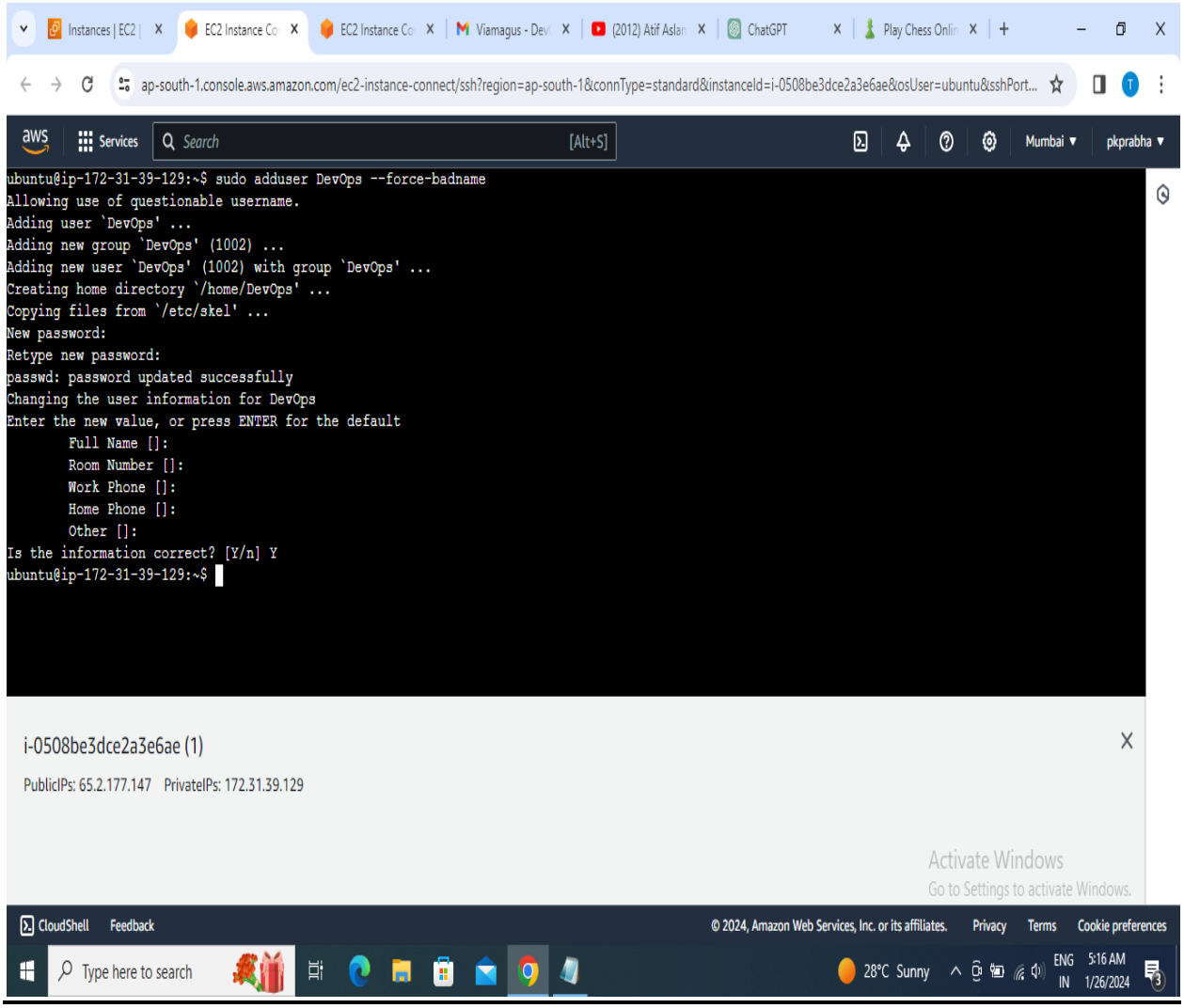
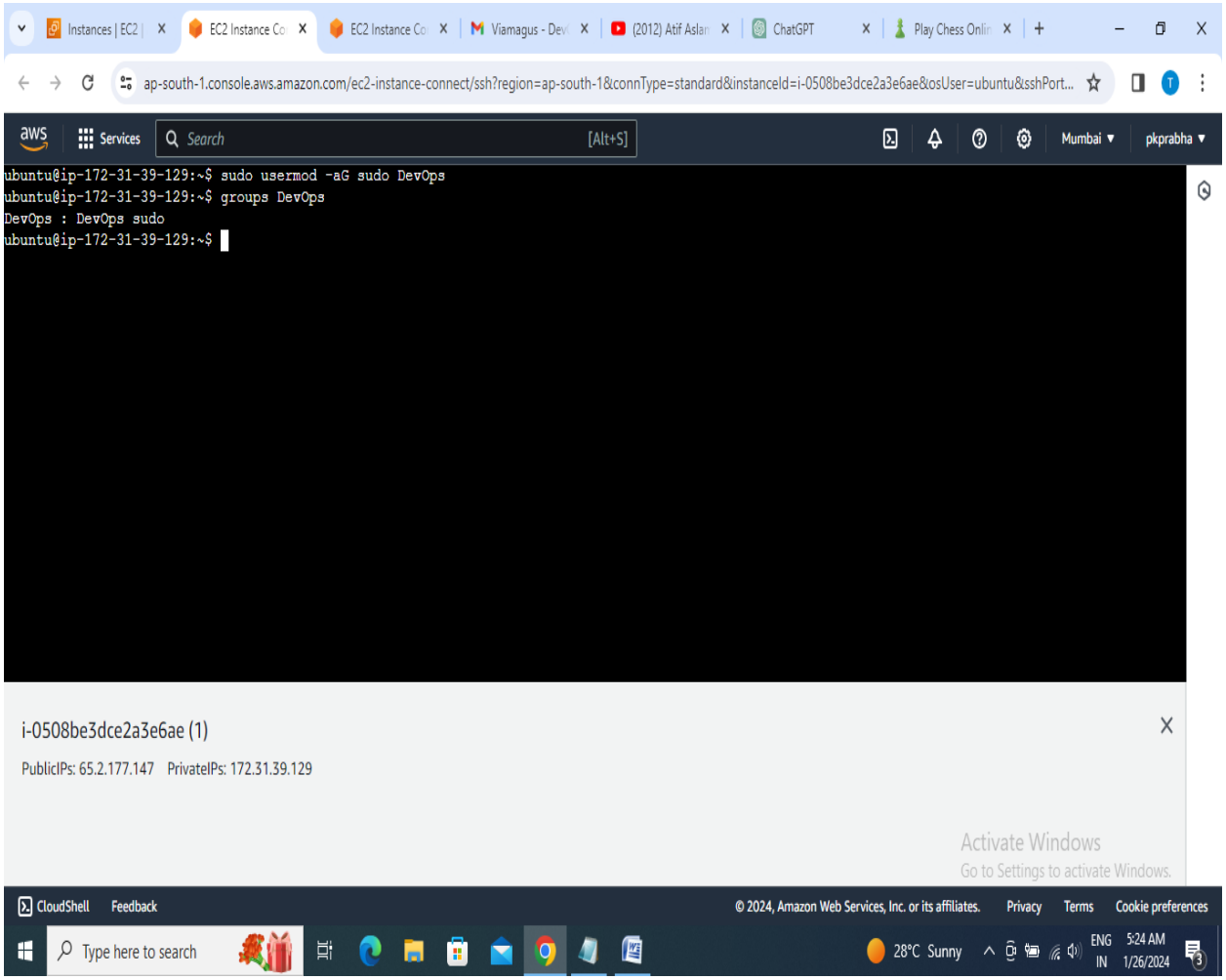
CREATE A SUDO USER



Command:

sudo adduser DevOps –force-badname

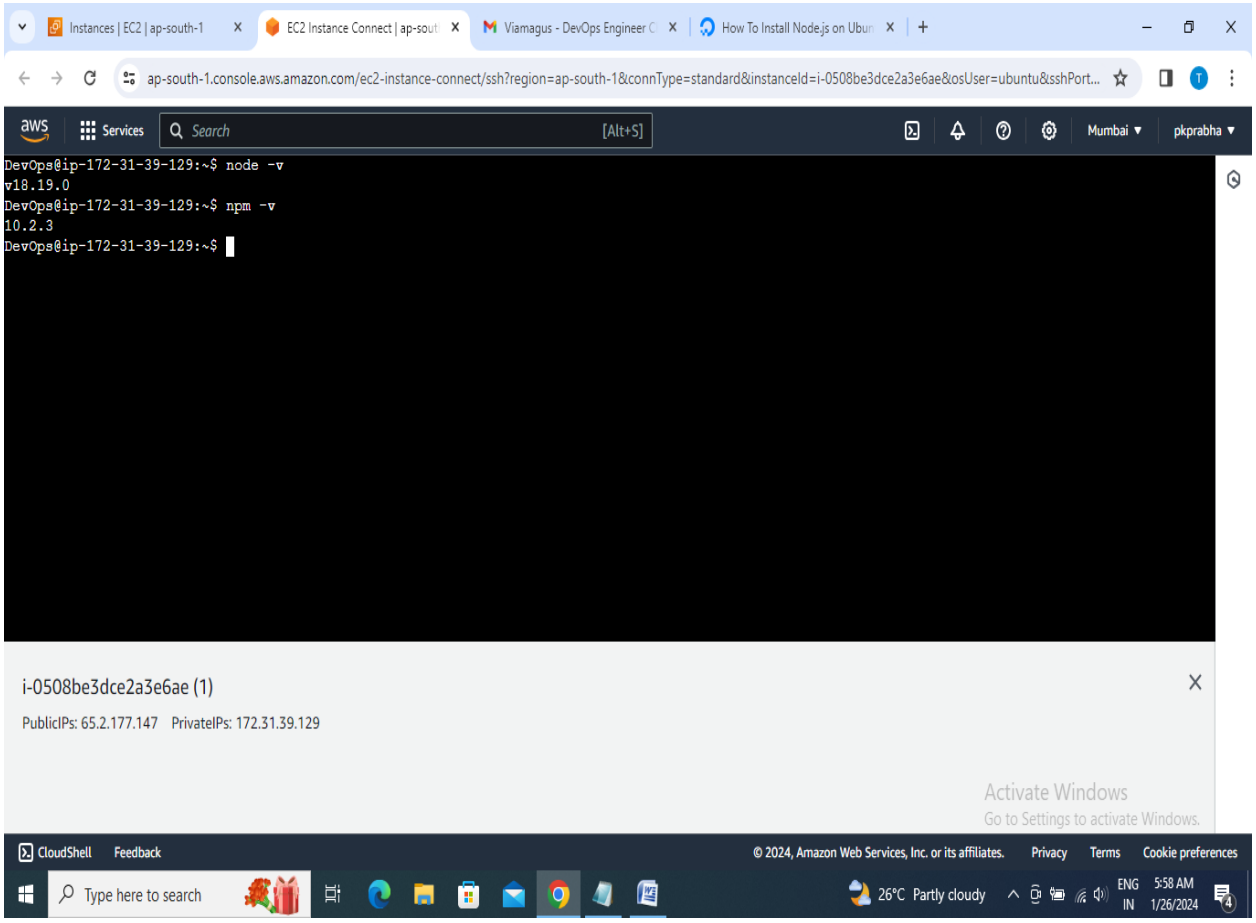
CREATE A SUDO GROUP:



Command:

Sudo usermod –aG sudo DevOps

Installing Nodejs & npm:



Commands:

cd ~

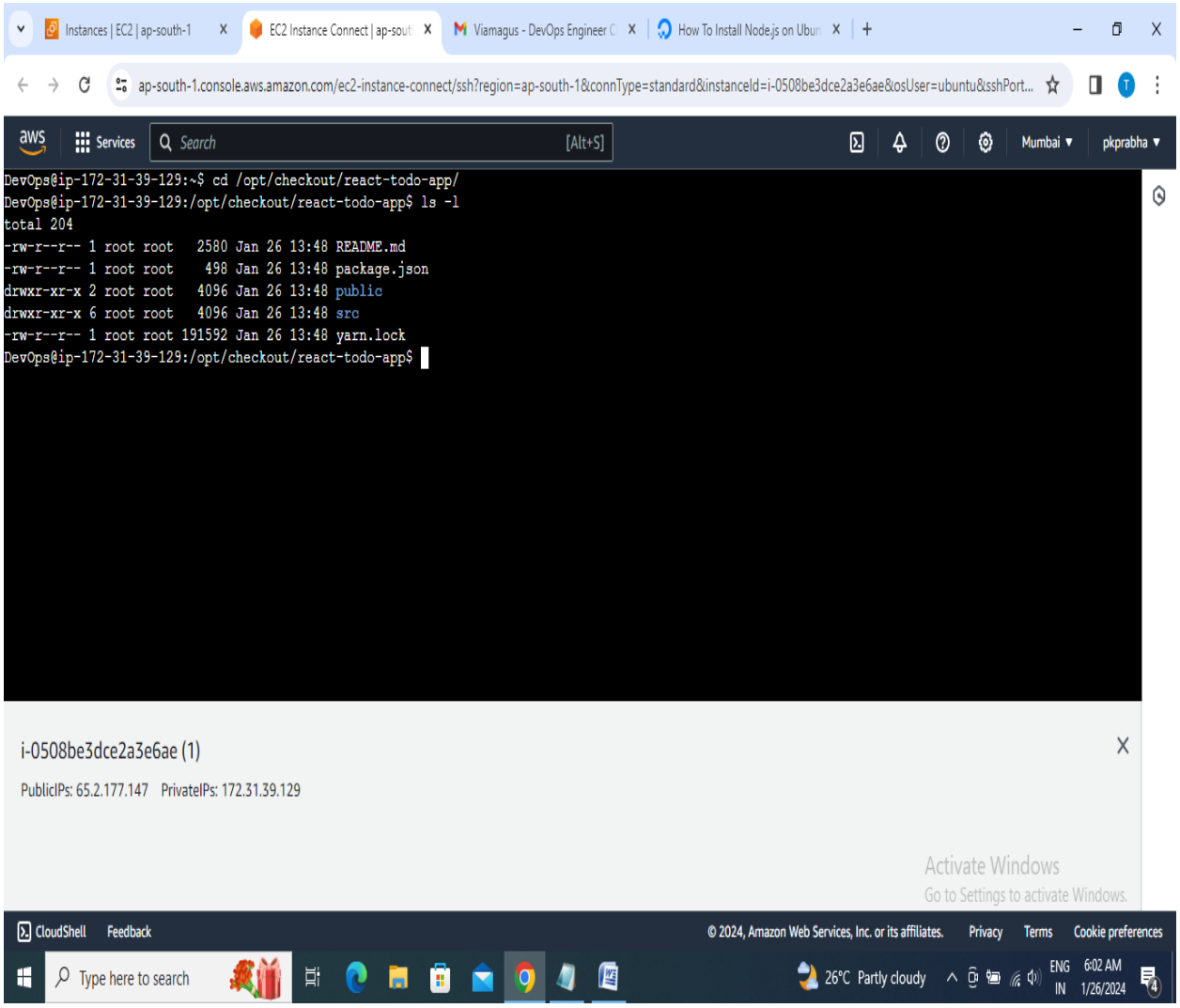
curl -sL https://deb.nodesource.com/setup_18.x -o nodesource_setup.sh

sudo bash nodesource_setup.sh

sudo apt install nodejs

node –v

git clone:



Commands:

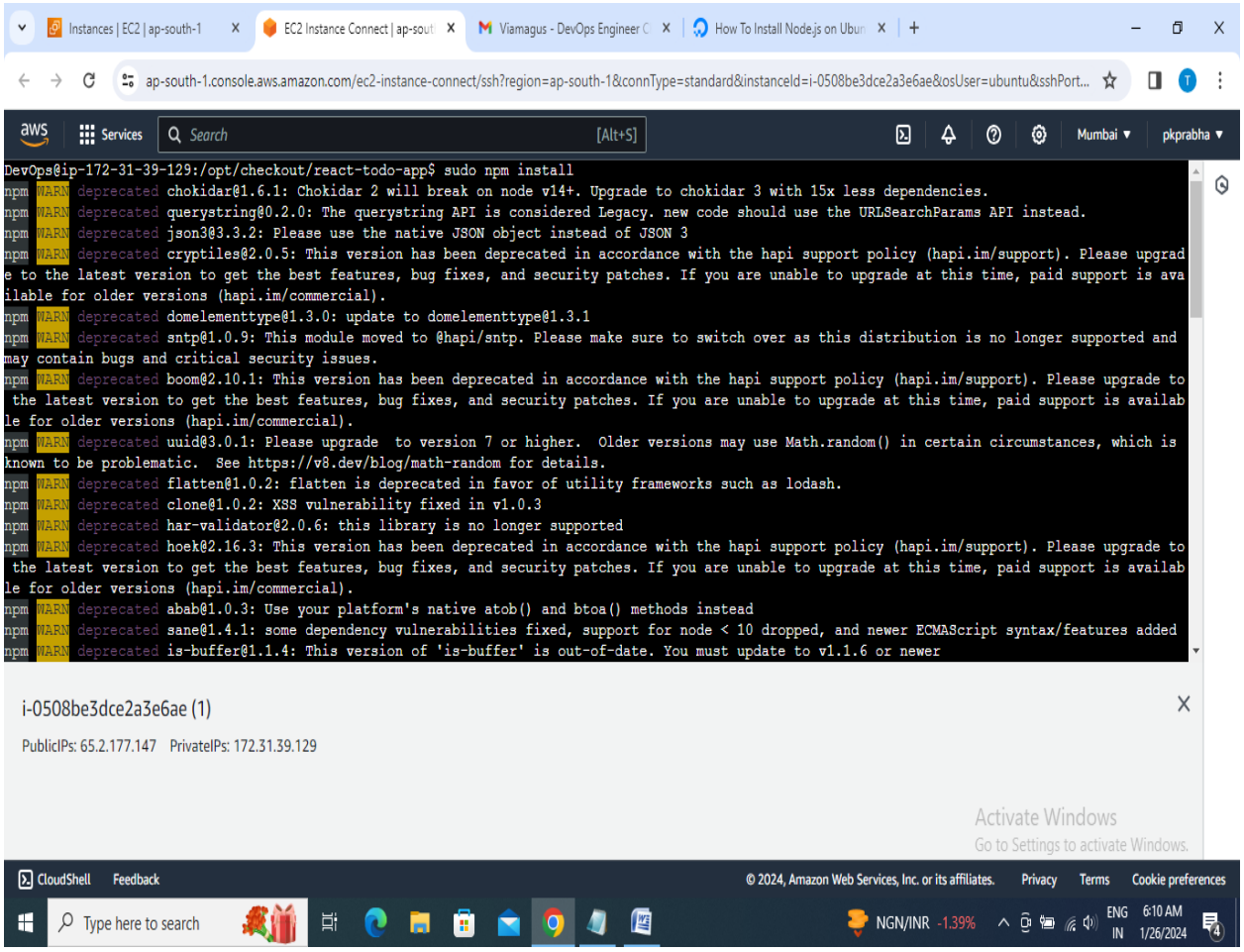
mkdir –p /opt/checkout/

cd /opt/checkout/

git clone https://github.com/kabirbaidhya/react-todo-app

react-todo-app folder will be cloned

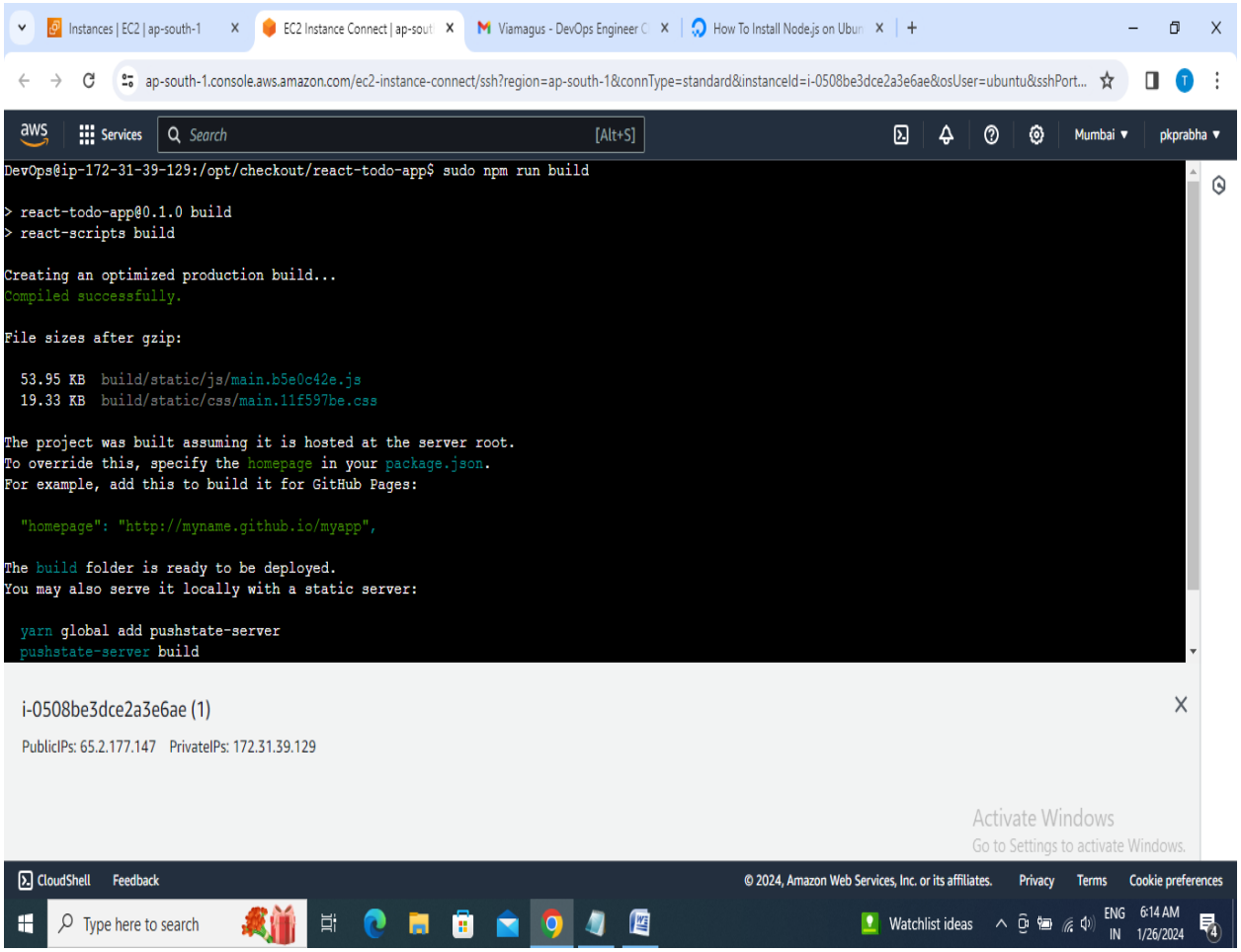
Using npm install and npm run build:



Command:

Sudo npm install

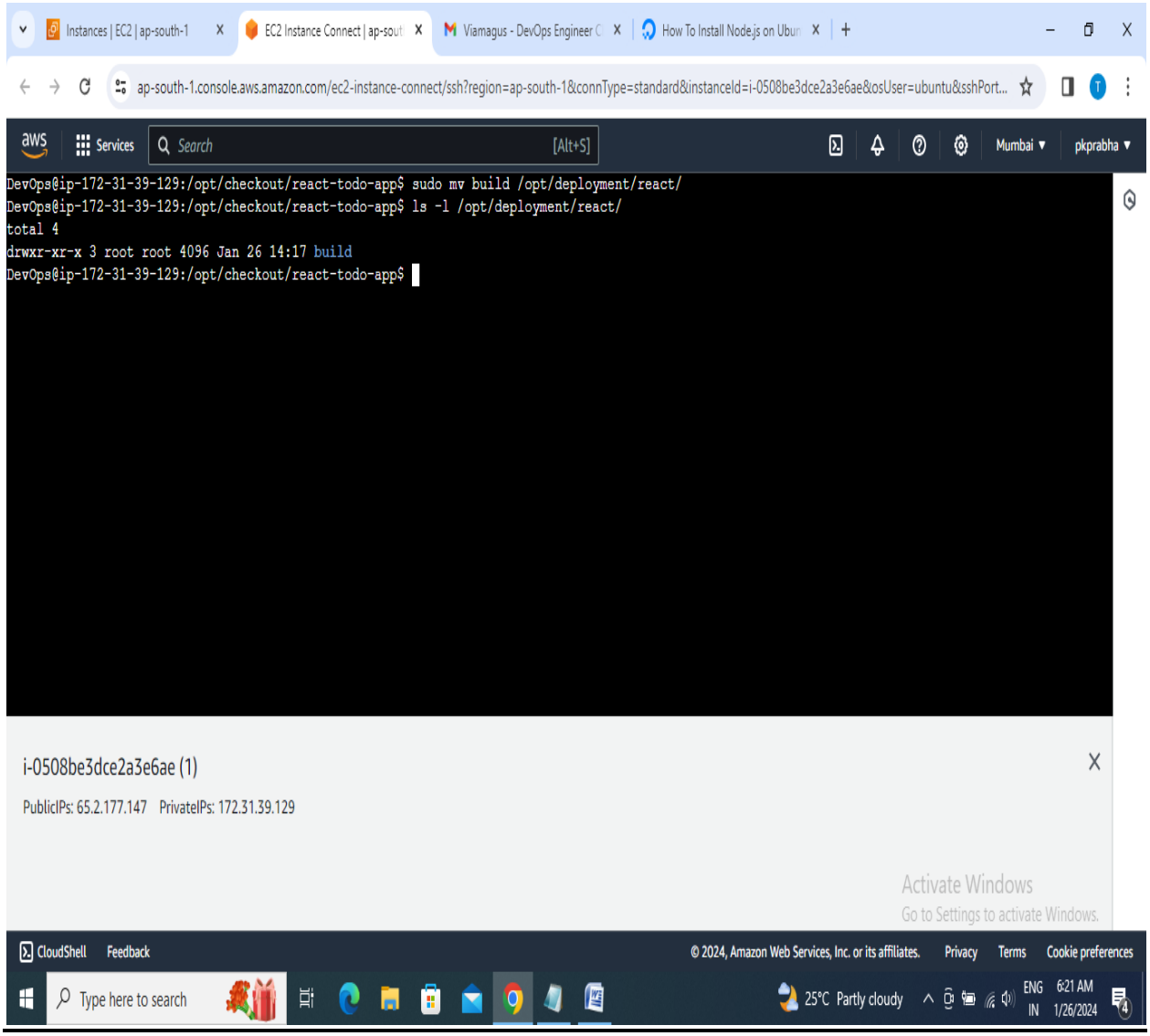
Npm run build:



Command:

Sudo npm run build

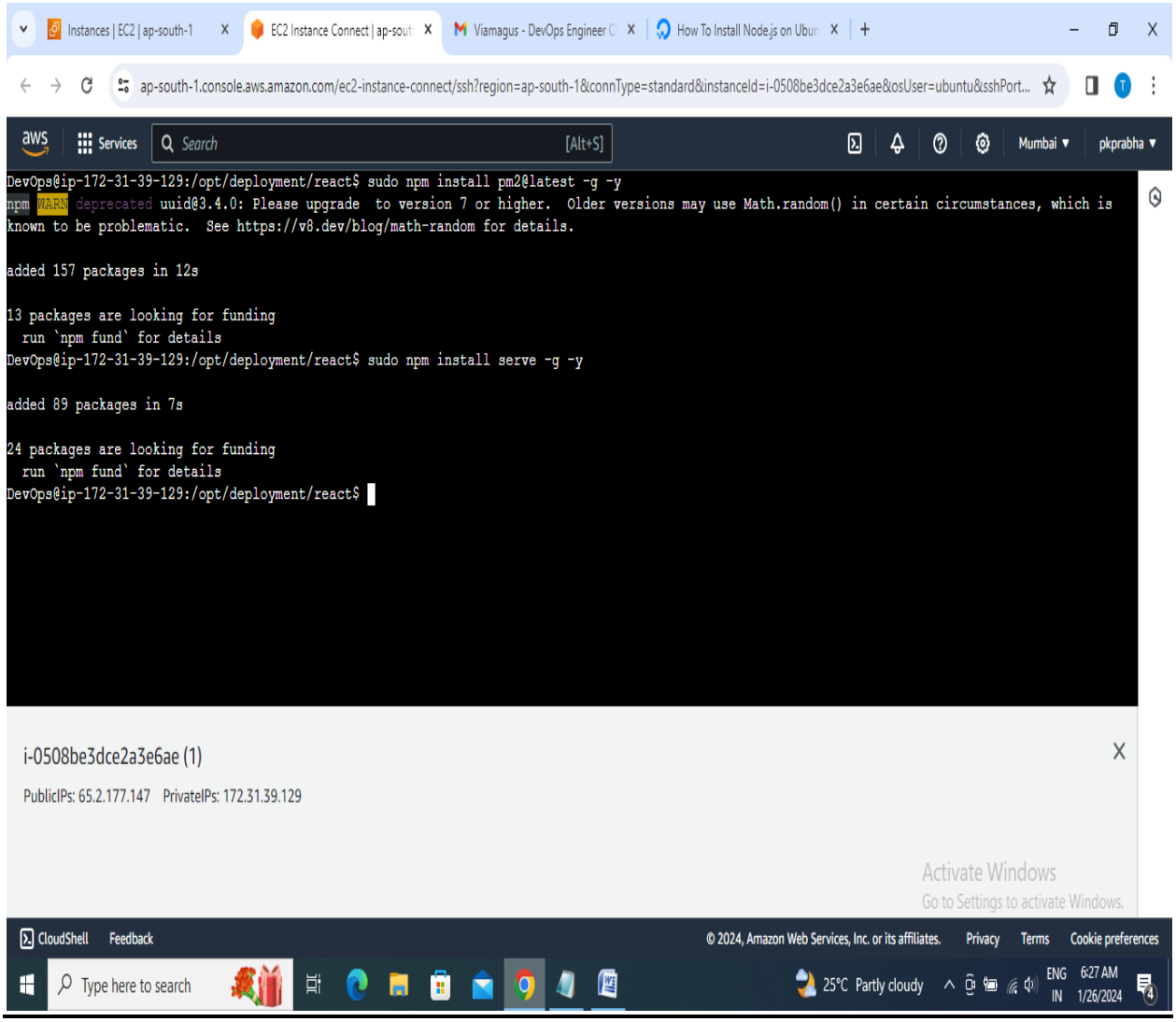
MOVING THE BUILD FILE TO /OPT/DEPLOYMENT/REACT:



Command:

sudo mv /build /opt/deployment/react

INSTALLING PM2 AND SERVE:

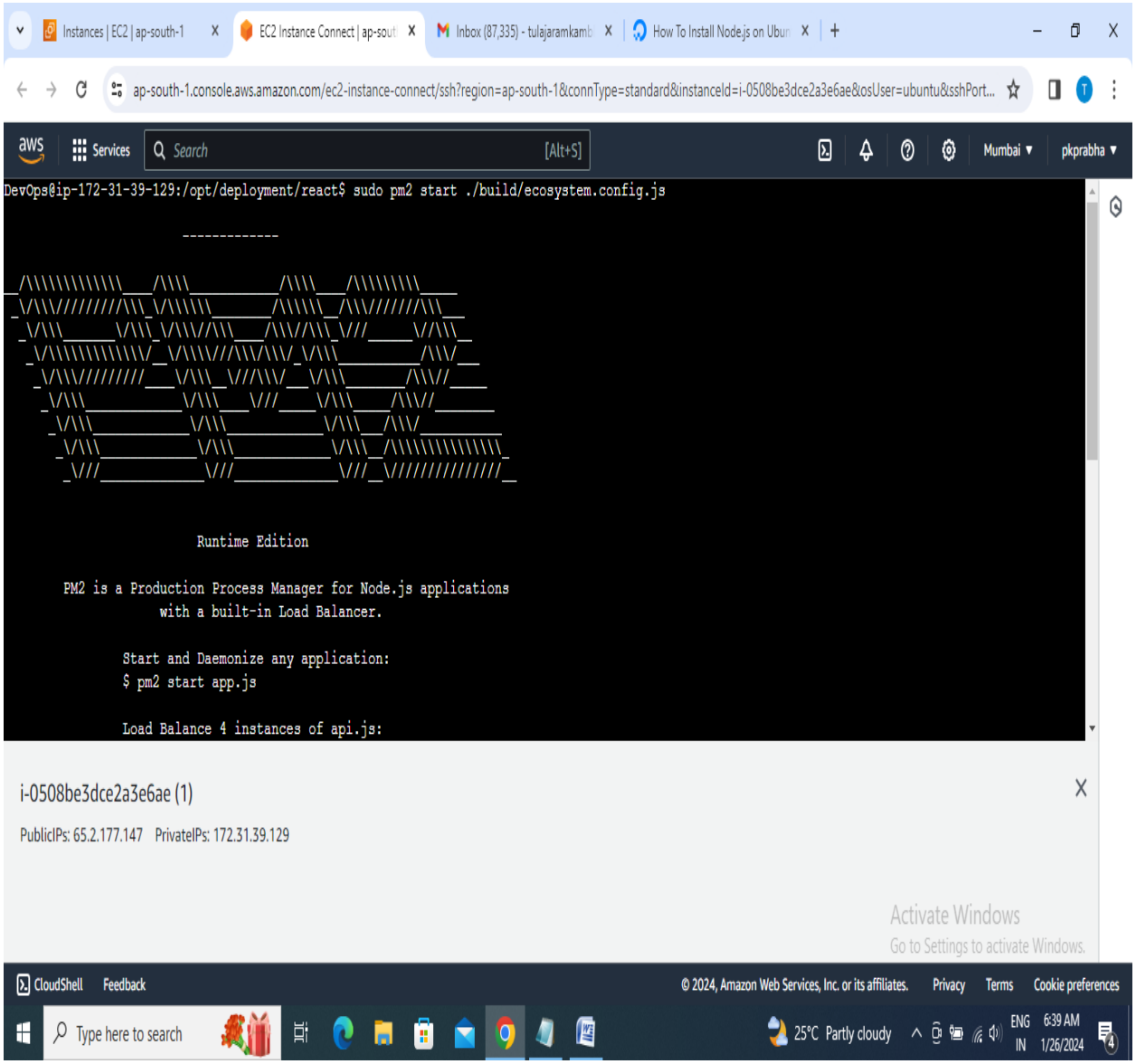


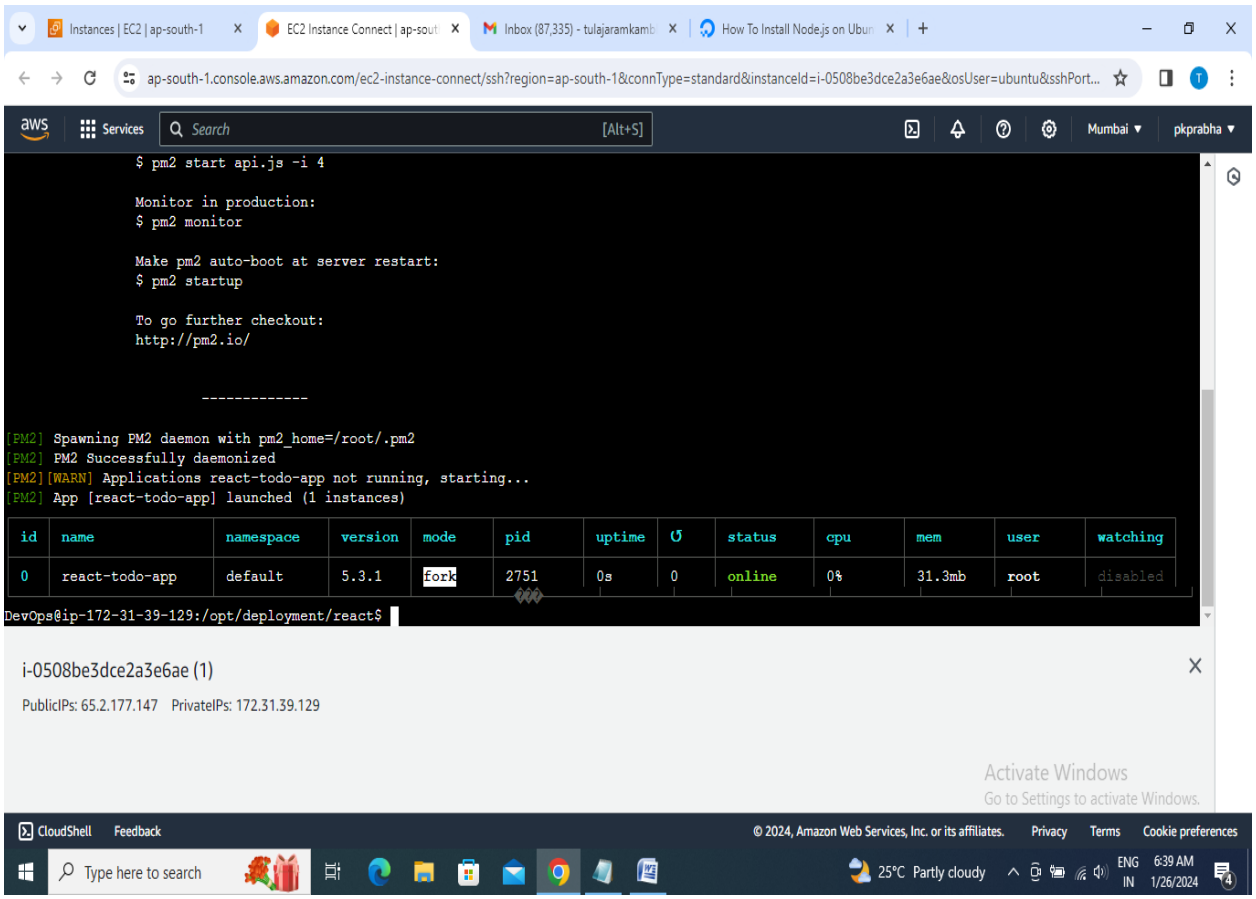
Command:

sudo npm install pm2@latest –g –y

sudo npm install serve –g -y

DEPLOYMENT USING PM2 in /opt/deployment/react:



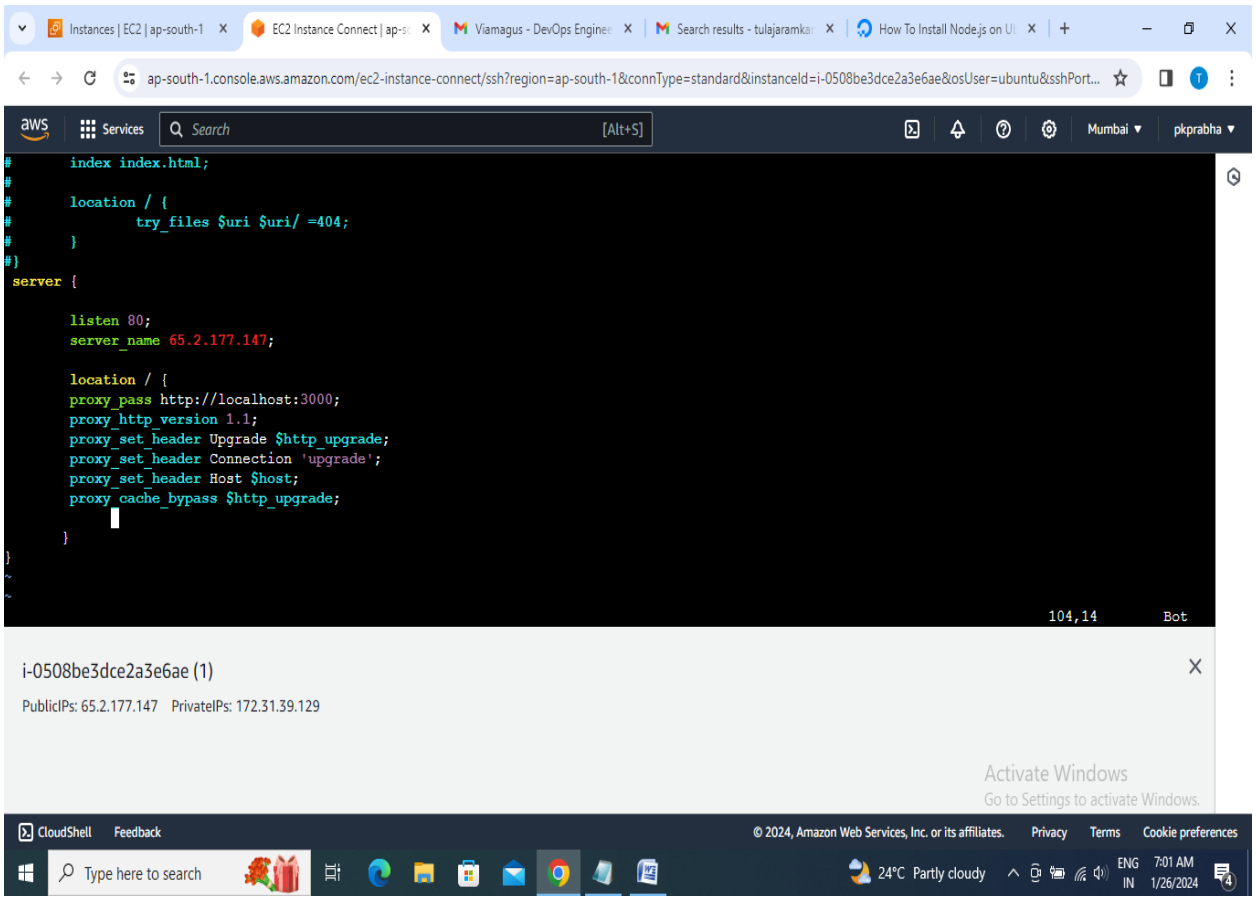


Command:

Sudo cp /tmp/ecosystem.config.js /opt/deployment/react/build

Sudo pm2 start ./build/ecosystem.config.js

SET UP NGINX PROXY AND PROXY ALL REQUESTS TO REACT



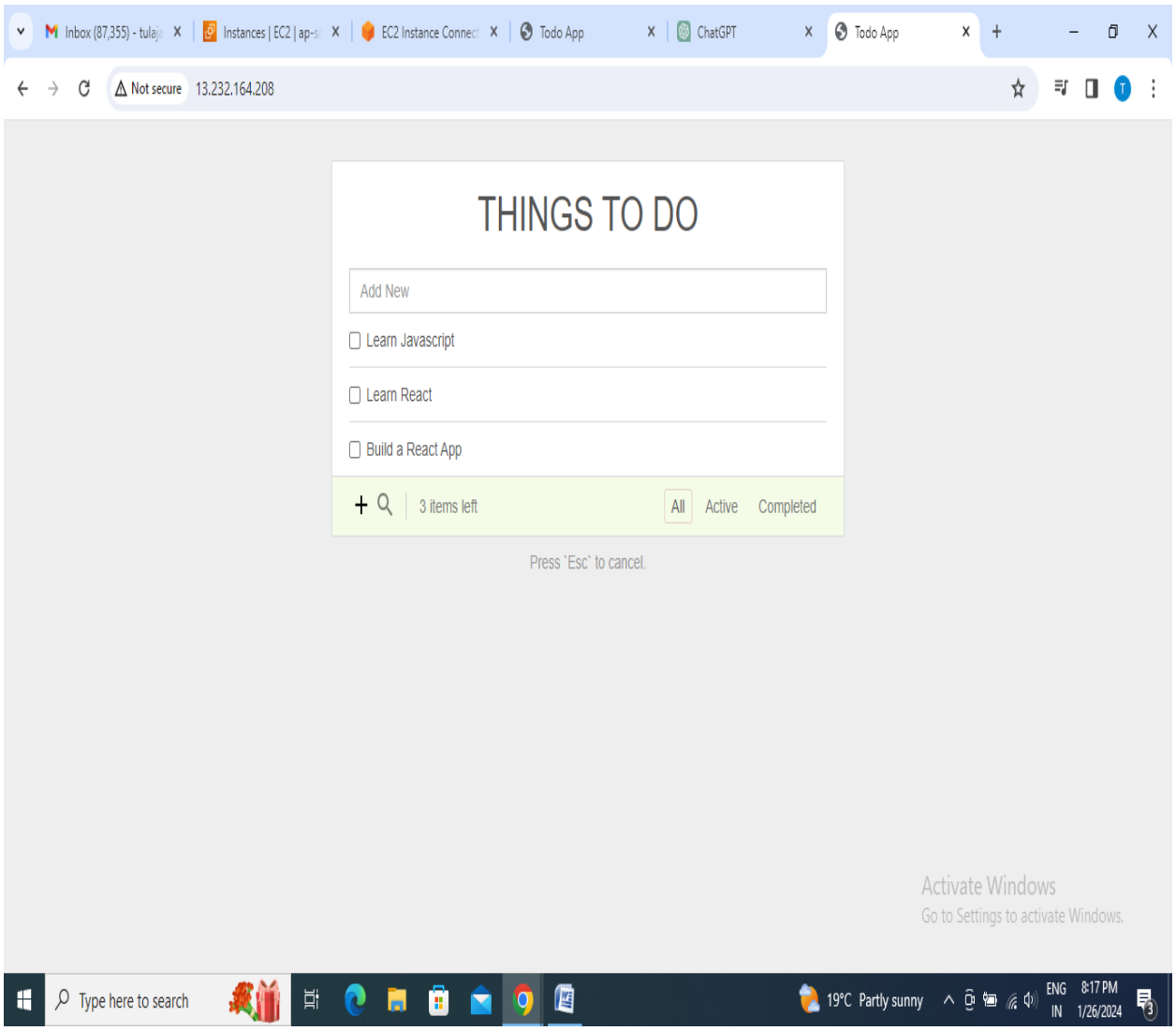
Setting up nginx proxy:

Sudo vi /etc/nginx/sites-available/defaults

Appending :

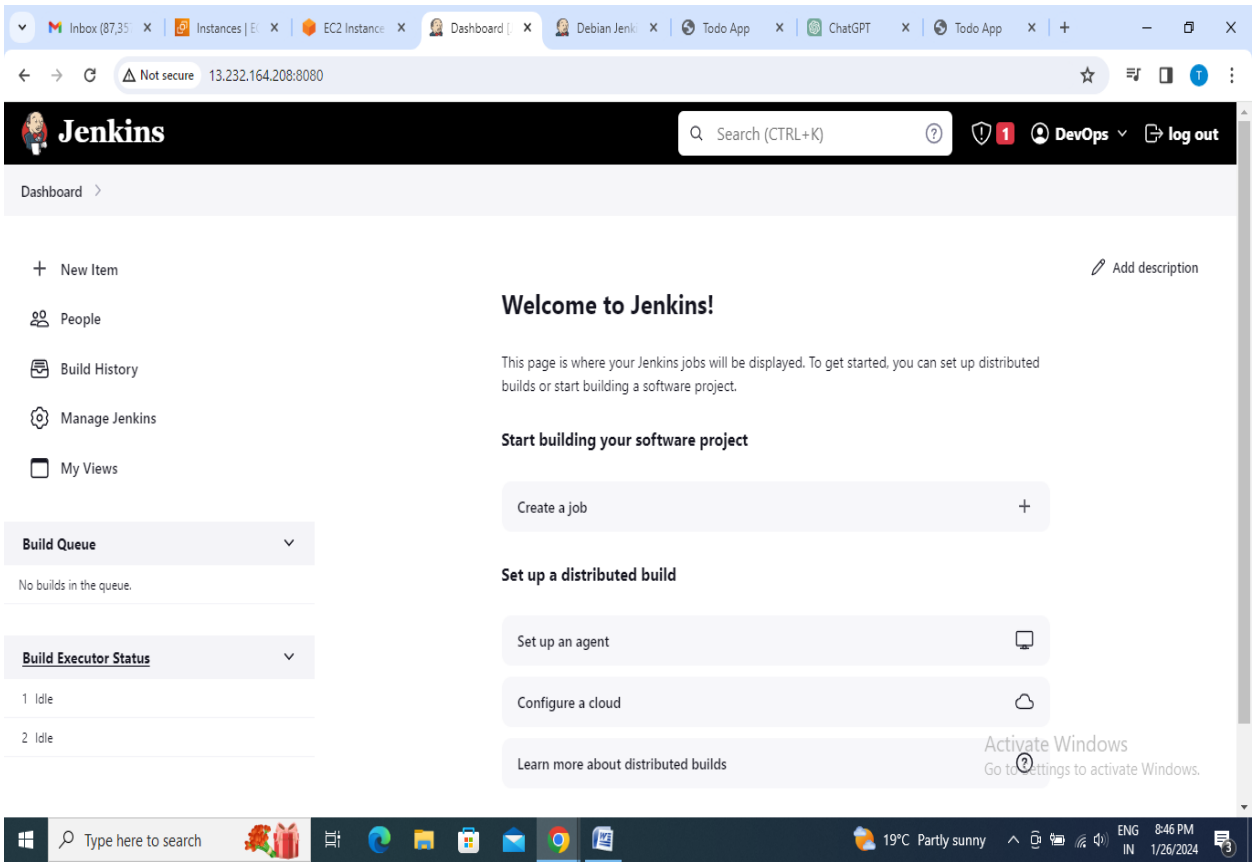
```
server {
        listen 80;
        server_name 13.233.130.65;

        location / {
        proxy_pass http://localhost:3000;
        proxy_http_version 1.1;
        proxy_set_header Upgrade $http_upgrade;
        proxy_set_header Connection 'upgrade';
        proxy_set_header Host $host;
        proxy_cache_bypass $http_upgrade;

       }
}
```

OUTPUT


Inbox (87,355) - tulaj
Instances | EC2 | ap-s
EC2 Instance Connect
Todo App
ChatGPT
Todo App
Not secure
13.232.164.208
THINGS TO DO
Add New
Learn Javascript
Learn React
Build a React App
3 items left
All
Active
Completed
Press `Esc` to cancel.
Activate Windows
Go to Settings to activate Windows.
Type here to search
19°C Partly sunny
ENG
IN
8:17 PM
1/26/2024

JENKINS PART

JENKINS INSTALLATION:



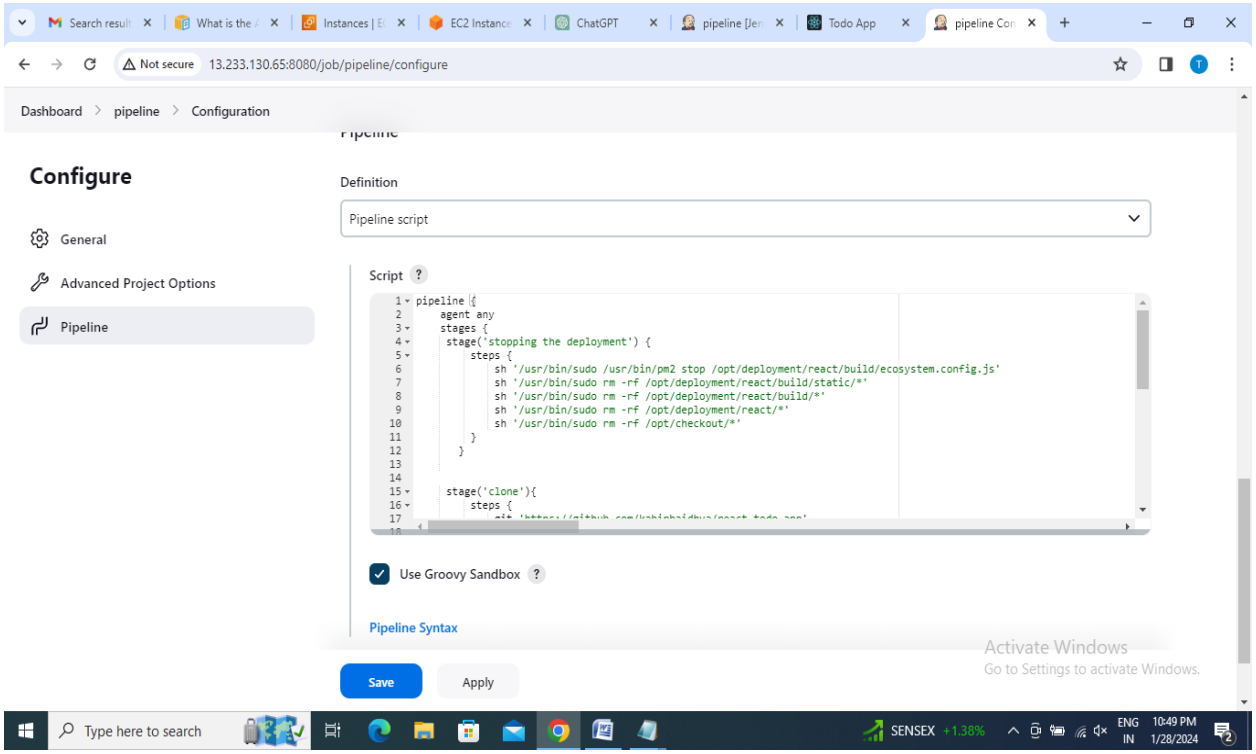
Commands:

sudo wget -O /usr/share/keyrings/jenkins-keyring.asc \

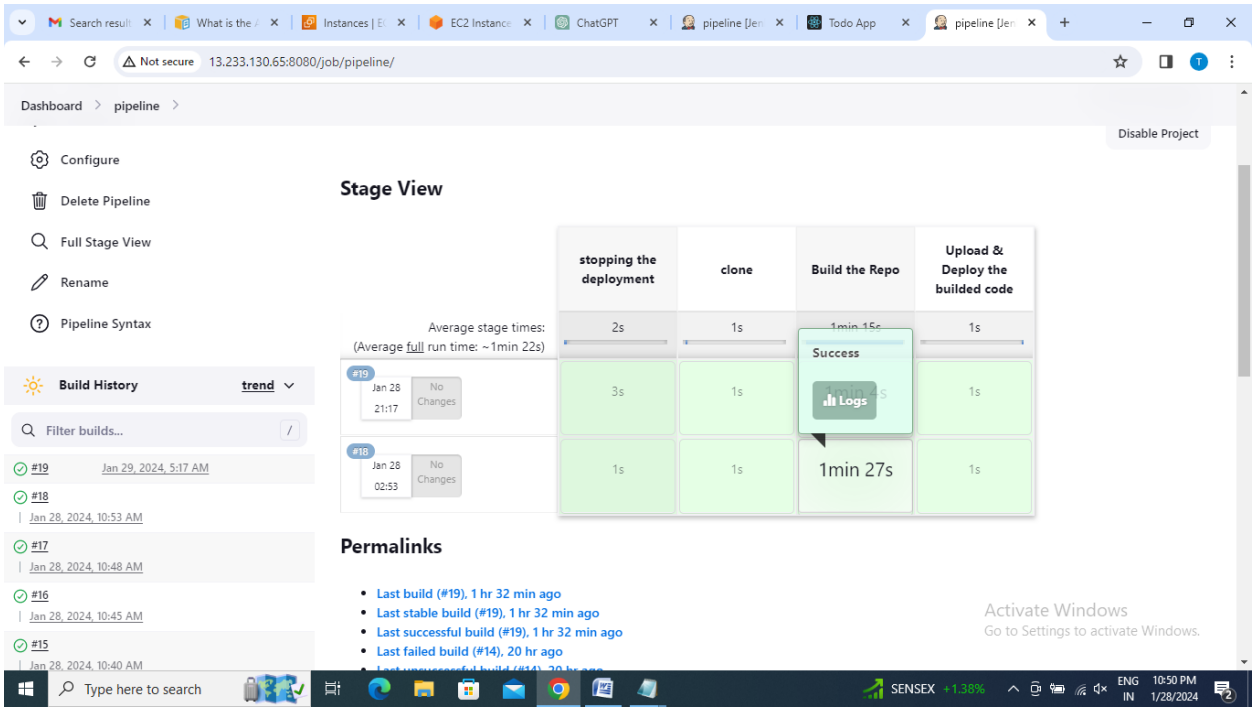
echo deb [signed-by=/usr/share/keyrings/jenkins-keyring.asc] https://pkg.jenkins.io/debian-stable binary/ | sudo tee /etc/apt/sources.list.d/jenkins.list > /dev/null

sudo apt-get update
sudo apt-get install fontconfig openjdk-17-jre
sudo apt-get install Jenkins
sudo service jenkins start → PORT 8080

JENKINS PIPELINE:



BUILD OUTPUT:

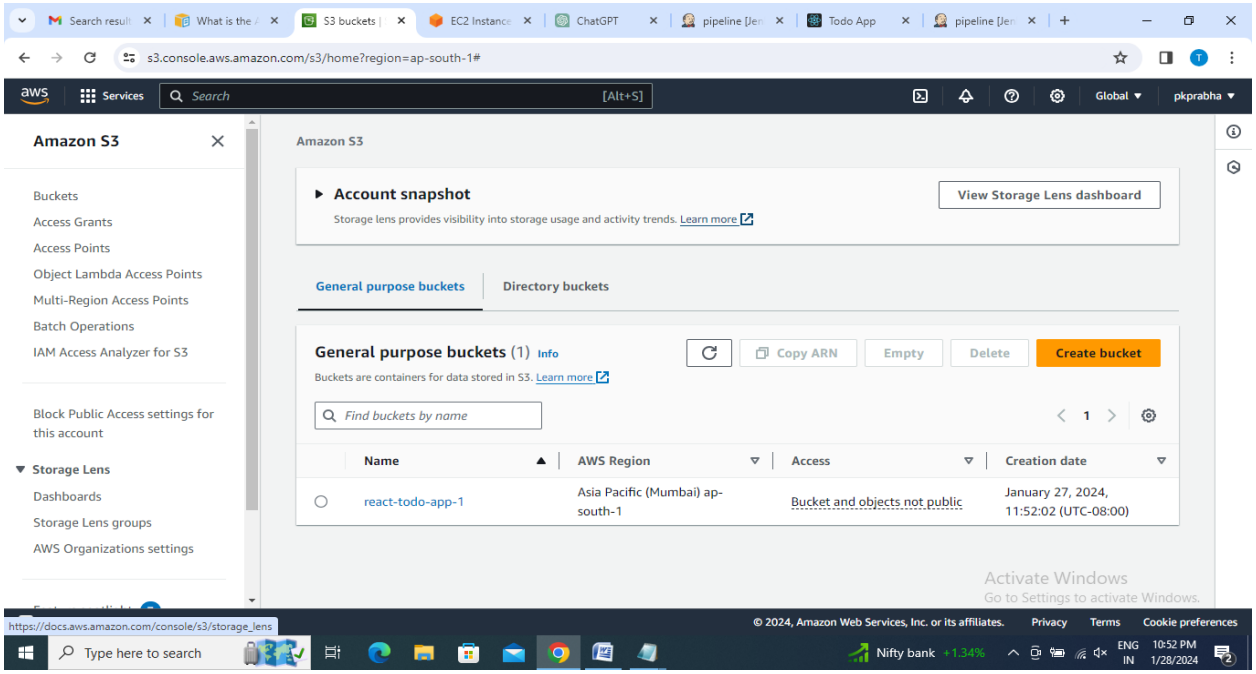


```
pipeline {
    agent any
    stages {
     stage('stopping the deployment') {
        steps {
            sh '/usr/bin/sudo /usr/bin/pm2 stop
/opt/deployment/react/build/ecosystem.config.js'
            sh '/usr/bin/sudo rm -rf
/opt/deployment/react/build/static/*'
            sh '/usr/bin/sudo rm -rf /opt/deployment/react/build/*'
            sh '/usr/bin/sudo rm -rf /opt/deployment/react/*'
            sh '/usr/bin/sudo rm -rf /opt/checkout/*'
        }
       }



     stage('clone'){
        steps {
            git 'https://github.com/kabirbaidhya/react-todo-app'
```

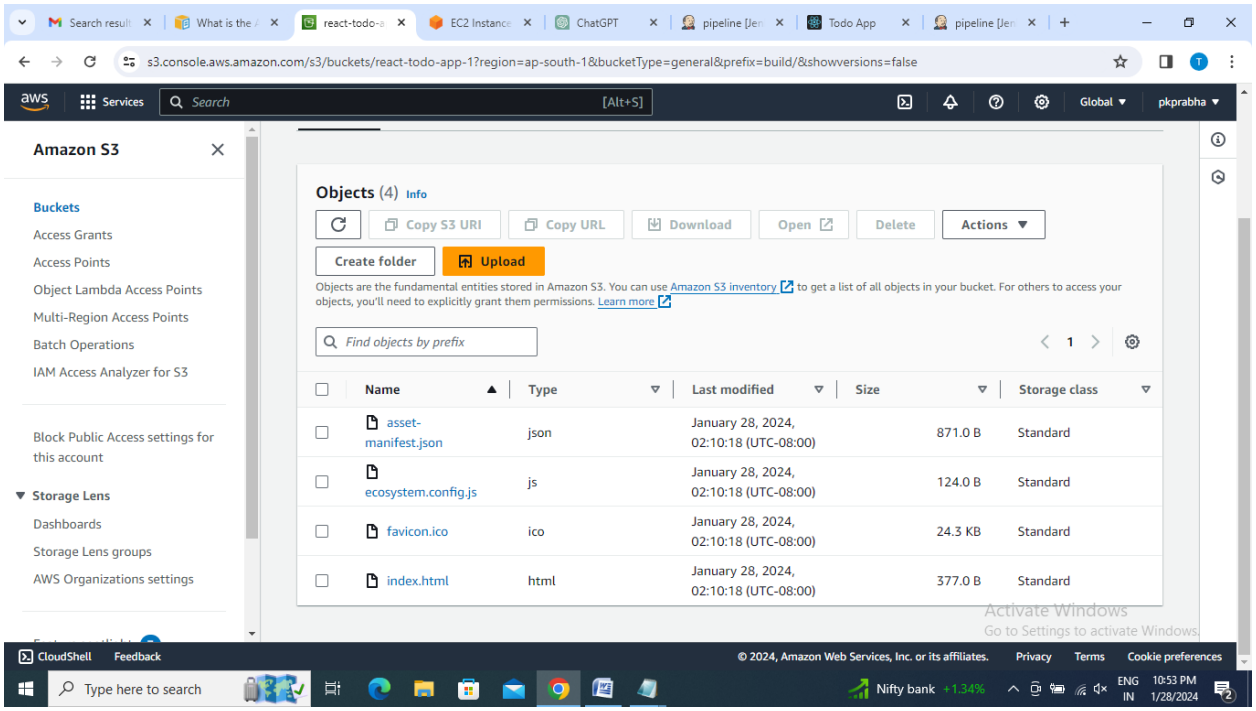
```
            sh 'pwd'
            sh '/usr/bin/sudo mv * /opt/checkout'
        }
      }
    stage('Build the Repo') {
        steps {
            sh 'cd /opt/checkout && /usr/bin/sudo npm install &&
/usr/bin/sudo npm run build'
            sh '/usr/bin/sudo cp -v /ecosystem/ecosystem.config.js
/opt/checkout/build'
        }
      }

    stage('Upload & Deploy the builded code') {
        steps {
            sh '/usr/bin/sudo mv /opt/checkout/build
/opt/deployment/react'
            sh '/usr/bin/sudo ln -s /opt/deployment/react/build/*
/var/lib/jenkins/workspace/pipeline/'
```

```
        s3Upload consoleLogLevel: 'INFO',
dontSetBuildResultOnFailure: false,
dontWaitForConcurrentBuildCompletion: false, entries:
[[bucket: 'react-todo-app-1', excludedFile: '', flatten: false,
gzipFiles: false, keepForever: false, managedArtifacts: false,
noUploadOnFailure: false, selectedRegion: 'ap-south-1',
showDirectlyInBrowser: false, sourceFile: '**/build/*',
storageClass: 'STANDARD', uploadFromSlave: false,
useServerSideEncryption: false]], pluginFailureResultConstraint:
'FAILURE', profileName: 'react-todo-app', userMetadata: []

        sh '/usr/bin/sudo rm -rf
/var/lib/jenkins/workspace/build'

        sh '/usr/bin/sudo /usr/bin/pm2 start
/opt/deployment/react/build/ecosystem.config.js'

      }

    }


   }

}
```

S3 BUCKET & ITS OUTPUT:



OBJECTS IN S3 BUCKET:

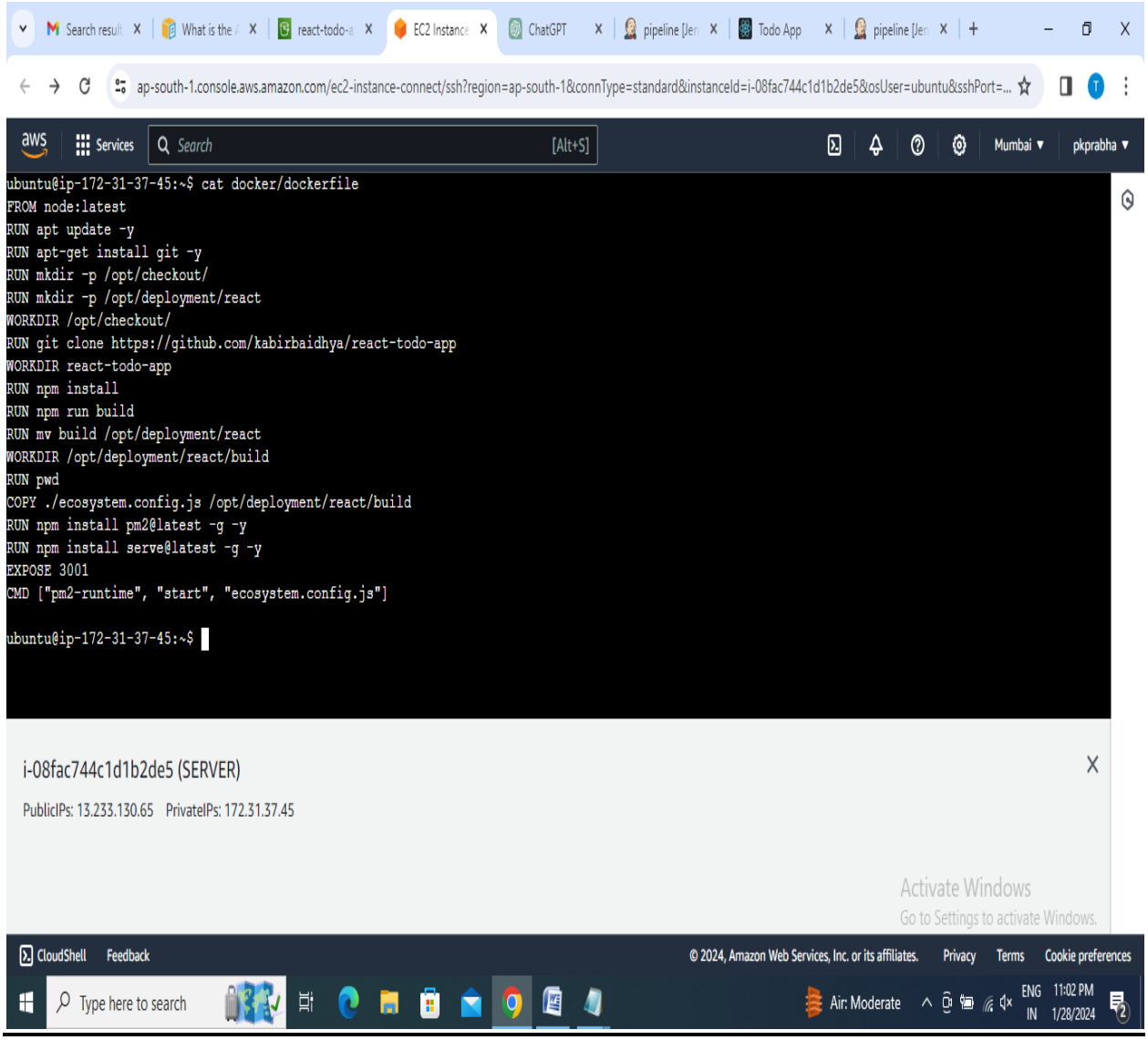


5. BASH SCRIPT && 6. DOCKER FILE

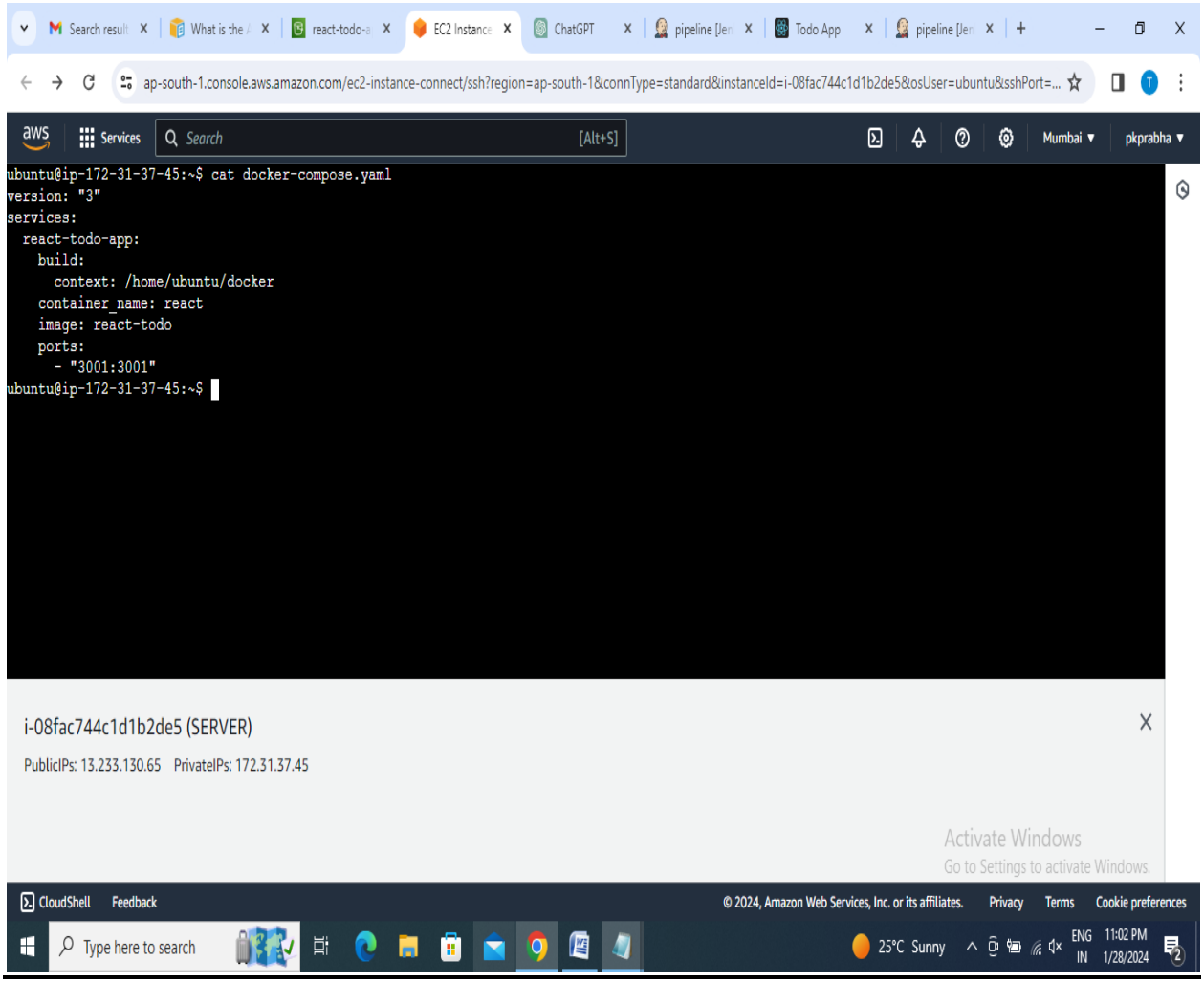
```
#!/bin/bash

mkdir -p /home/ubuntu/JDK

cd /home/ubuntu/JDK


echo Downloading JDK file `date`


wget https://builds.openlogic.com/downloadJDK/openlogic-openjdk/17.0.8+7/openlogic-openjdk-

17.0.8+7-linux-x64.tar.gz


echo Installing JDK file `date`

tar –xvf openlogic-openjdk-17.0.8+7-linux-x64.tar.gz


echo Environmental path for JDK , DevOps `date`

export PATH=$PATH:/usr/bin/java >> /home/DevOps/.bashrc
```

6. DOCKER PART:

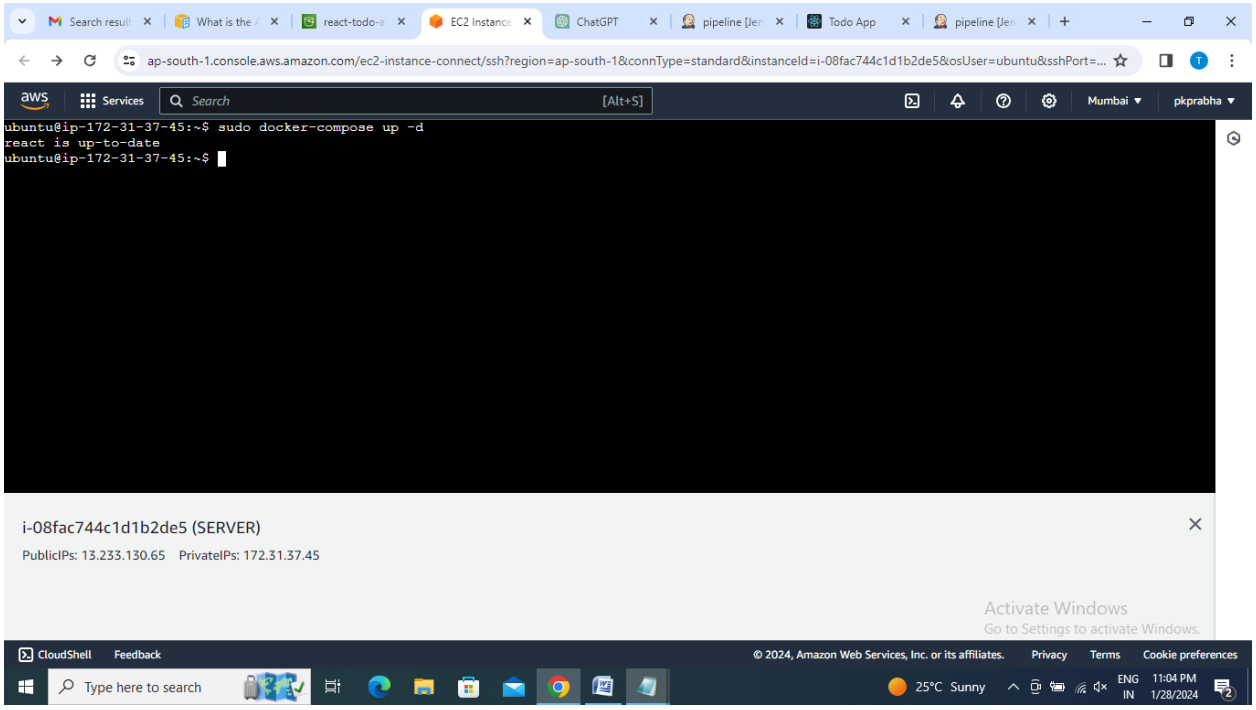
Docker-file creation



Docker-compose creation



OUTPUT OF DOCKER-COMPOSE FILE:



Command:

Sudo docker-compose up -d

DOCKER FILE SCRIPT:

```
FROM node:latest

RUN apt update -y

RUN apt-get install git -y

RUN mkdir -p /opt/checkout/

RUN mkdir -p /opt/deployment/react

WORKDIR /opt/checkout/

RUN git clone https://github.com/kabirbaidhya/react-todo-app

WORKDIR react-todo-app

RUN npm install

RUN npm run build

RUN mv build /opt/deployment/react

WORKDIR /opt/deployment/react/build

RUN pwd

COPY ./ecosystem.config.js /opt/deployment/react/build

RUN npm install pm2@latest -g -y

RUN npm install serve@latest -g -y

EXPOSE 3001

CMD ["pm2-runtime", "start", "ecosystem.config.js"]
```

DOCKER-COMPOSE FILE:

```
version: "3"
services:
  react-todo-app:
    build:
      context: /home/ubuntu/docker
    container_name: react
    image: react-todo
    ports:
      - "3001:3001"
```

THE-END

XXXXXXXXXXXXXXXXXXXXXXXXX

XXXXXXXX