MovieBookingApplication

JAVA FSE1

Springboot-React-GCP

MovieBookingApp Backend Deployment using (Google Kubernetes Engine) steps:

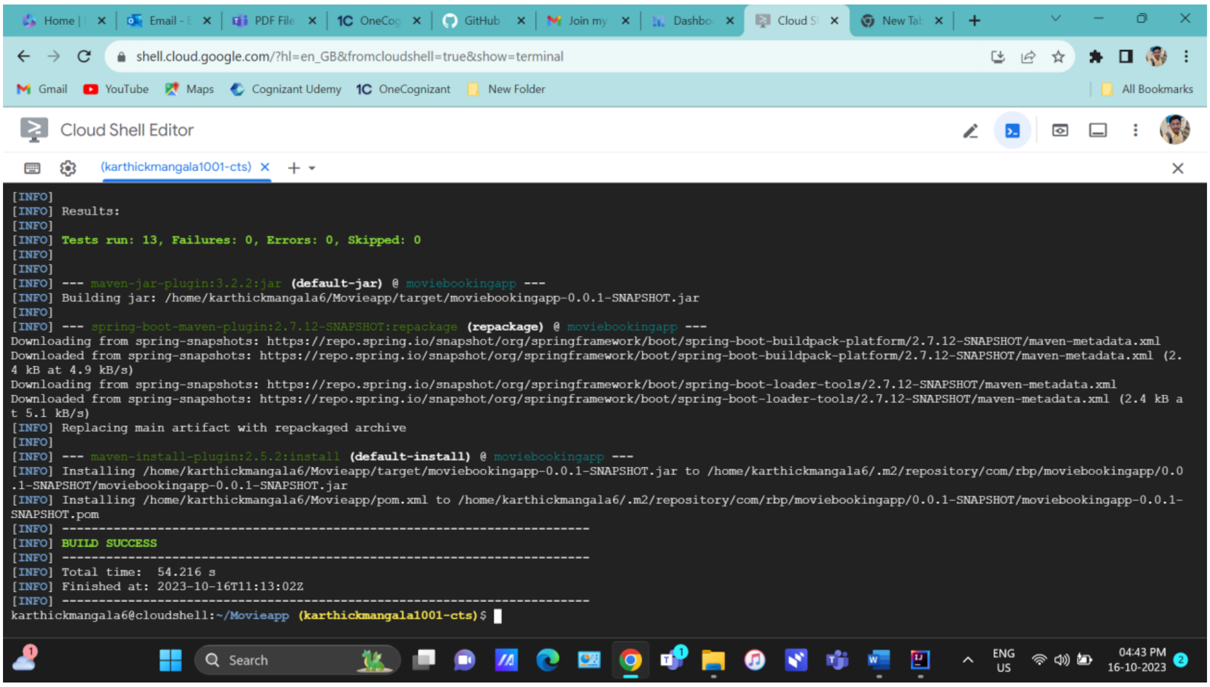
1) **Create Mongodb atlas by selecting Gcp as a service and create one connection After successfully created the connection,you will get uri like this update in application.properties backend code**

```
spring.data.mongodb.uri=mongodb+srv://test:test@cluster0.1qounvz.mongodb.ne
t/?retryWrites=true&w=majority
```

2) Active cloud shell-> git clone https://github.com/Mangalakarthick/Movie-Application-using-Java-React.git

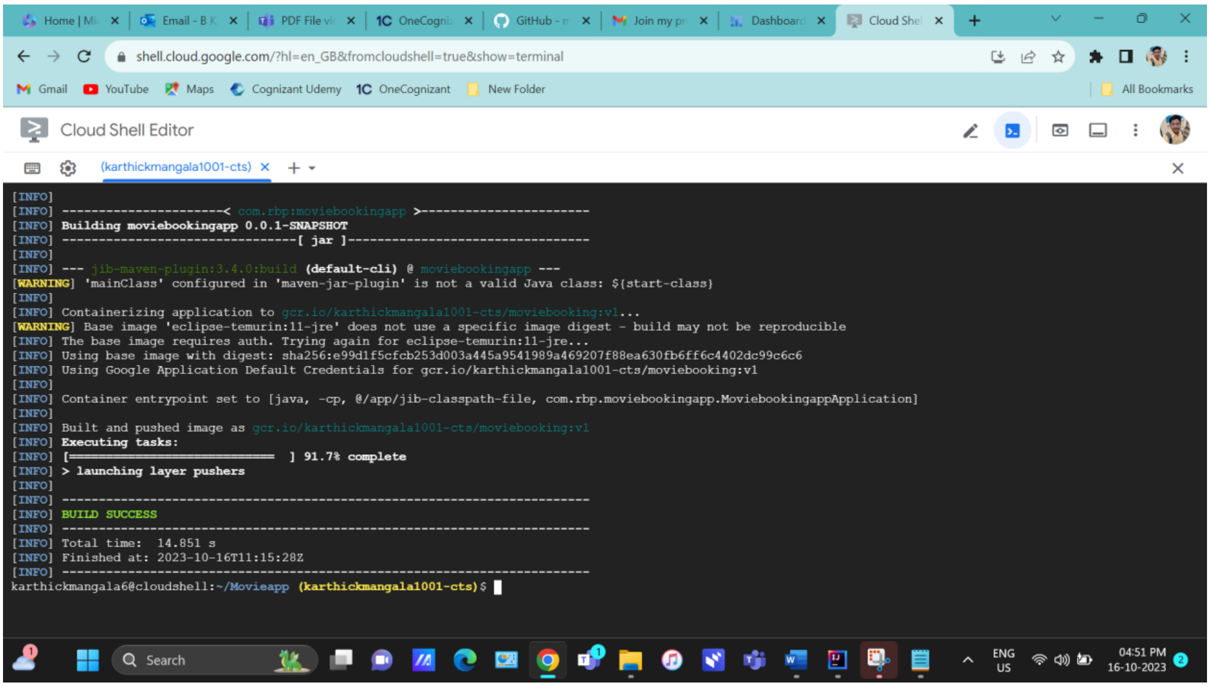
3) cd Movieapp

4) mvn clean install



```
[INFO]
[INFO] Results:
[INFO]
[INFO] Tests run: 13, Failures: 0, Errors: 0, Skipped: 0
[INFO]
[INFO]
[INFO] --- maven-jar-plugin:3.2.2:jar (default-jar) @ moviebookingapp ---
[INFO] Building jar: /home/karthickmangala6/Movieapp/target/moviebookingapp-0.0.1-SNAPSHOT.jar
[INFO]
[INFO] --- spring-boot-maven-plugin:2.7.12-SNAPSHOT:repackage (repackage) @ moviebookingapp ---
Downloading from spring-snapshots: https://repo.spring.io/snapshot/org/springframework/boot/spring-boot-buildpack-platform/2.7.12-SNAPSHOT/maven-metadata.xml
Downloaded from spring-snapshots: https://repo.spring.io/snapshot/org/springframework/boot/spring-boot-buildpack-platform/2.7.12-SNAPSHOT/maven-metadata.xml (2.
4 kB at 4.9 kB/s)
Downloading from spring-snapshots: https://repo.spring.io/snapshot/org/springframework/boot/spring-boot-loader-tools/2.7.12-SNAPSHOT/maven-metadata.xml
Downloaded from spring-snapshots: https://repo.spring.io/snapshot/org/springframework/boot/spring-boot-loader-tools/2.7.12-SNAPSHOT/maven-metadata.xml (2.4 kB a
t 5.1 kB/s)
[INFO] Replacing main artifact with repackaged archive
[INFO]
[INFO] --- maven-install-plugin:2.5.2:install (default-install) @ moviebookingapp ---
[INFO] Installing /home/karthickmangala6/Movieapp/target/moviebookingapp-0.0.1-SNAPSHOT.jar to /home/karthickmangala6/.m2/repository/com/rbp/moviebookingapp/0.0
.1-SNAPSHOT/moviebookingapp-0.0.1-SNAPSHOT.jar
[INFO] Installing /home/karthickmangala6/Movieapp/pom.xml to /home/karthickmangala6/.m2/repository/com/rbp/moviebookingapp/0.0.1-SNAPSHOT/moviebookingapp-0.0.1-
SNAPSHOT.pom
[INFO] ------------------------------------------------------------------------
[INFO] BUILD SUCCESS
[INFO] ------------------------------------------------------------------------
[INFO] Total time:  54.216 s
[INFO] Finished at: 2023-10-16T11:13:02Z
[INFO] ------------------------------------------------------------------------
karthickmangala6@cloudshell:~/Movieapp (karthickmangala1001-cts)$
```

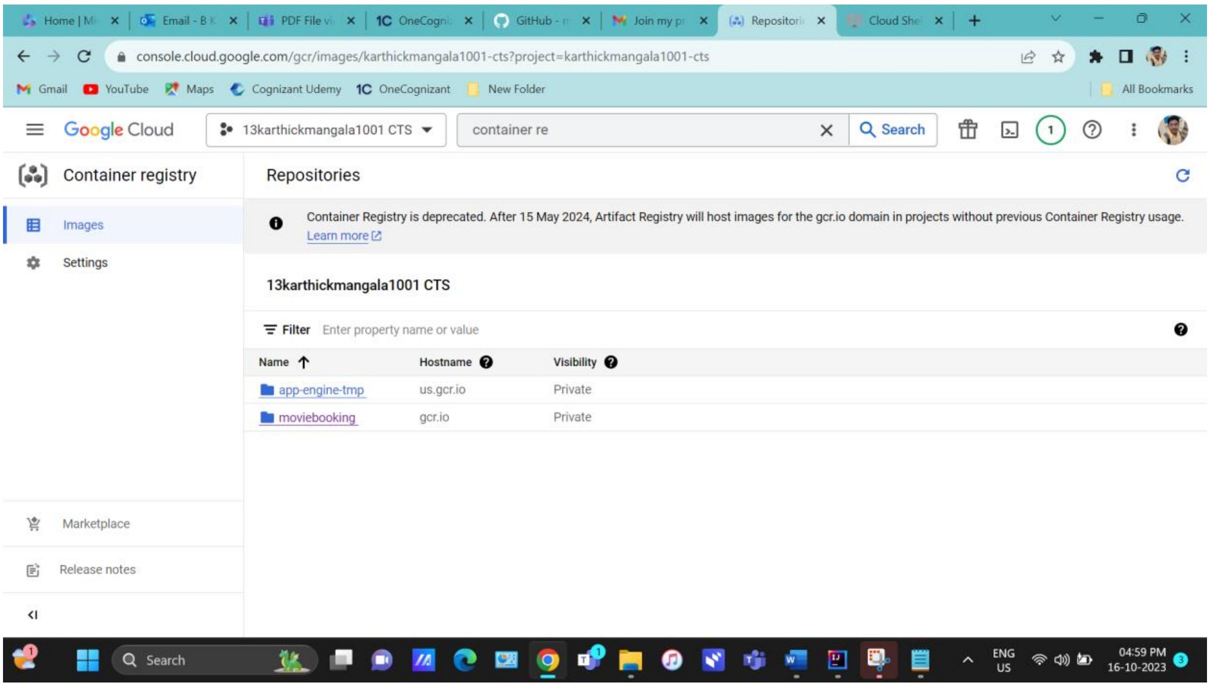
5) mvn com.google.cloud.tools:jib-maven-plugin:build -Dimage=gcr.io/karthickmangala1001-cts/moviebooking:v1



```
[INFO]
[INFO] ---------------------< com.rbp:moviebookingapp >----------------------
[INFO] Building moviebookingapp 0.0.1-SNAPSHOT
[INFO] --------------------------------[ jar ]---------------------------------
[INFO]
[INFO] --- jib-maven-plugin:3.4.0:build (default-cli) @ moviebookingapp ---
[WARNING] 'mainClass' configured in 'maven-jar-plugin' is not a valid Java class: ${start-class}
[INFO]
[INFO] Containerizing application to gcr.io/karthickmangala1001-cts/moviebooking:v1...
[WARNING] Base image 'eclipse-temurin:11-jre' does not use a specific image digest - build may not be reproducible
[INFO] The base image requires auth. Trying again for eclipse-temurin:11-jre...
[INFO] Using base image with digest: sha256:e99d1f5cfcb253d003a445a9541989a469207f88ea630fb6ff6c4402dc99c6c6
[INFO] Using Google Application Default Credentials for gcr.io/karthickmangala1001-cts/moviebooking:v1
[INFO]
[INFO] Container entrypoint set to [java, -cp, @/app/jib-classpath-file, com.rbp.moviebookingapp.MoviebookingappApplication]
[INFO]
[INFO] Built and pushed image as gcr.io/karthickmangala1001-cts/moviebooking:v1
[INFO] Executing tasks:
[INFO] [============================  ] 91.7% complete
[INFO] > launching layer pushers
[INFO]
[INFO] ------------------------------------------------------------------------
[INFO] BUILD SUCCESS
[INFO] ------------------------------------------------------------------------
[INFO] Total time:  14.851 s
[INFO] Finished at: 2023-10-16T11:15:28Z
[INFO] ------------------------------------------------------------------------
karthickmangala6@cloudshell:~/Movieapp (karthickmangala1001-cts)$
```

shell.cloud.google.com/?hl=en_GB&fromcloudshell=true&show=terminal
Cloud Shell Editor
(karthickmangala1001-cts)
04:51 PM
16-10-2023

6) In gcp console search-> images (container register) type and click show blow like this choose moviebooking



Container registry

Repositories

Container Registry is deprecated. After 15 May 2024, Artifact Registry will host images for the gcr.io domain in projects without previous Container Registry usage. Learn more

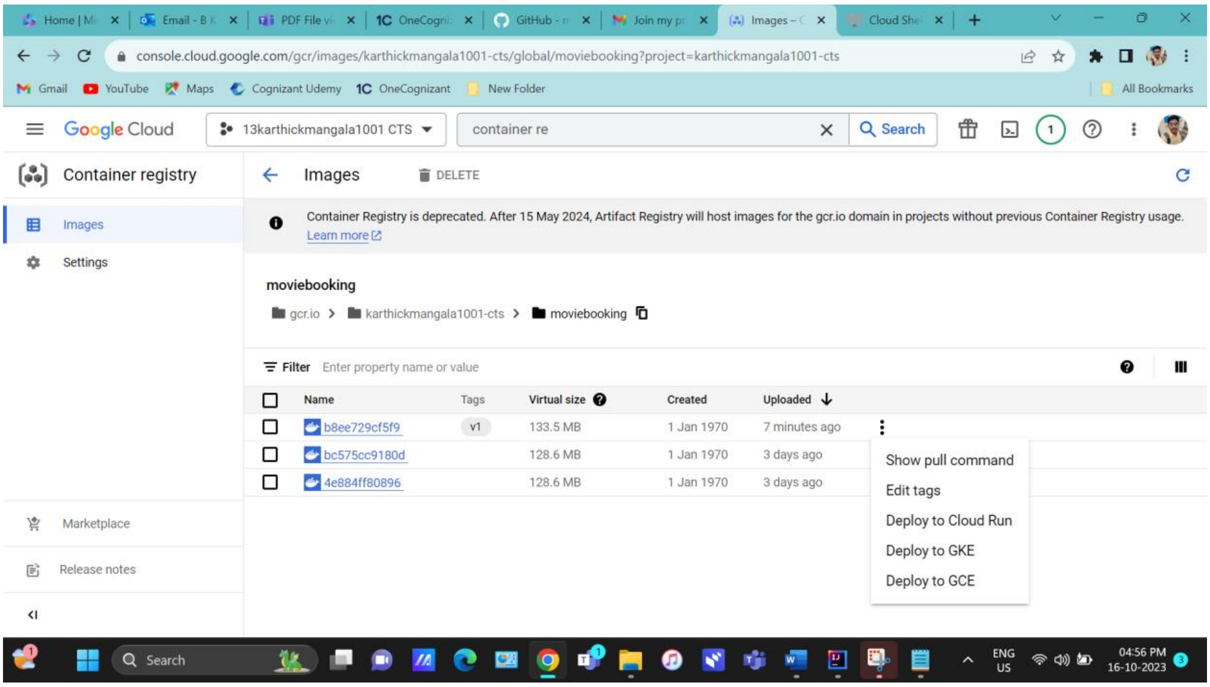
13karthickmangala1001 CTS

Filter Enter property name or value

Name ↑	Hostname	Visibility
app-engine-tmp	us.gcr.io	Private
moviebooking	gcr.io	Private

console.cloud.google.com/gcr/images/karthickmangala1001-cts?project=karthickmangala1001-cts
Google Cloud
13karthickmangala1001 CTS
container re
Search
Images
Settings
Marketplace
Release notes
04:59 PM
16-10-2023

7) Moviebooking after choose latest updated docker container Deploy to GKE select



console.cloud.google.com/gcr/images/karthickmangala1001-cts/global/moviebooking?project=karthickmangala1001-cts

Container Registry is deprecated. After 15 May 2024, Artifact Registry will host images for the gcr.io domain in projects without previous Container Registry usage. Learn more

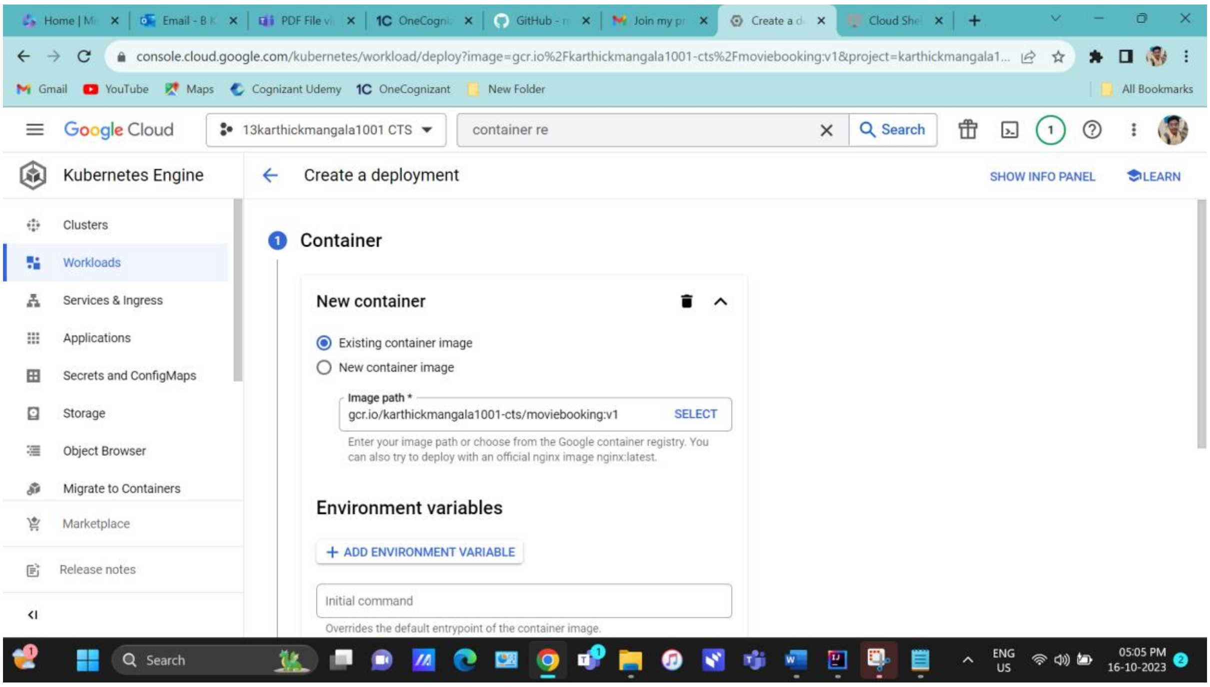
moviebooking

gcr.io > karthickmangala1001-cts > moviebooking

Name	Tags	Virtual size	Created	Uploaded
b8ee729cf5f9	v1	133.5 MB	1 Jan 1970	7 minutes ago
bc575cc9180d		128.6 MB	1 Jan 1970	3 days ago
4e884ff80896		128.6 MB	1 Jan 1970	3 days ago

8) Deploy to GKE select after show below like this

No changes in 1)container 2)Configurtion deployment name choose your wise eg (backend)



console.cloud.google.com/kubernetes/workload/deploy?image=gcr.io%2Fkarthickmangala1001-cts%2Fmoviebooking:v1&project=karthickmangala1...

Create a deployment

1 Container

New container

● Existing container image

○ New container image

Image path *: gcr.io/karthickmangala1001-cts/moviebooking:v1

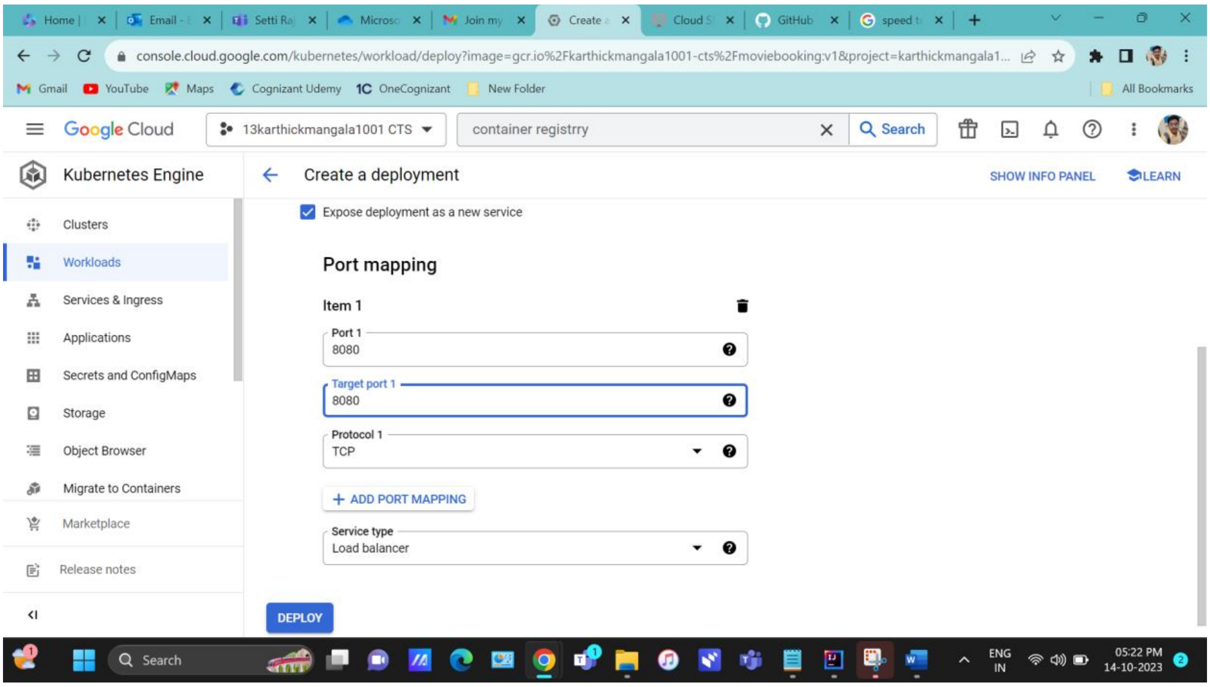
Enter your image path or choose from the Google container registry. You can also try to deploy with an official nginx image nginx:latest.

Environment variables

Initial command

Overrides the default entrypoint of the container image.

9) click on Expose put your backend running port eg(8080) click deploy



Create a deployment

☑ Expose deployment as a new service

Port mapping

Item 1

Port 1: 8080

Target port 1: 8080

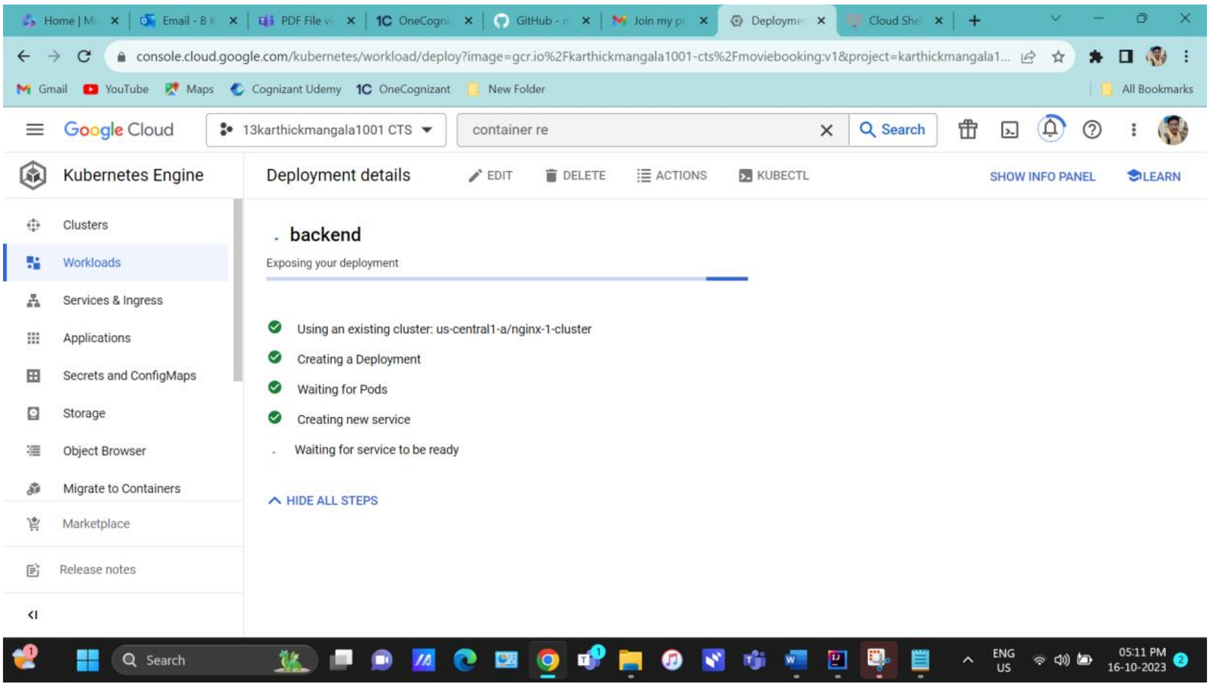
Protocol 1: TCP

+ ADD PORT MAPPING

Service type: Load balancer

DEPLOY

Now backend is deploying show like this



Deployment details

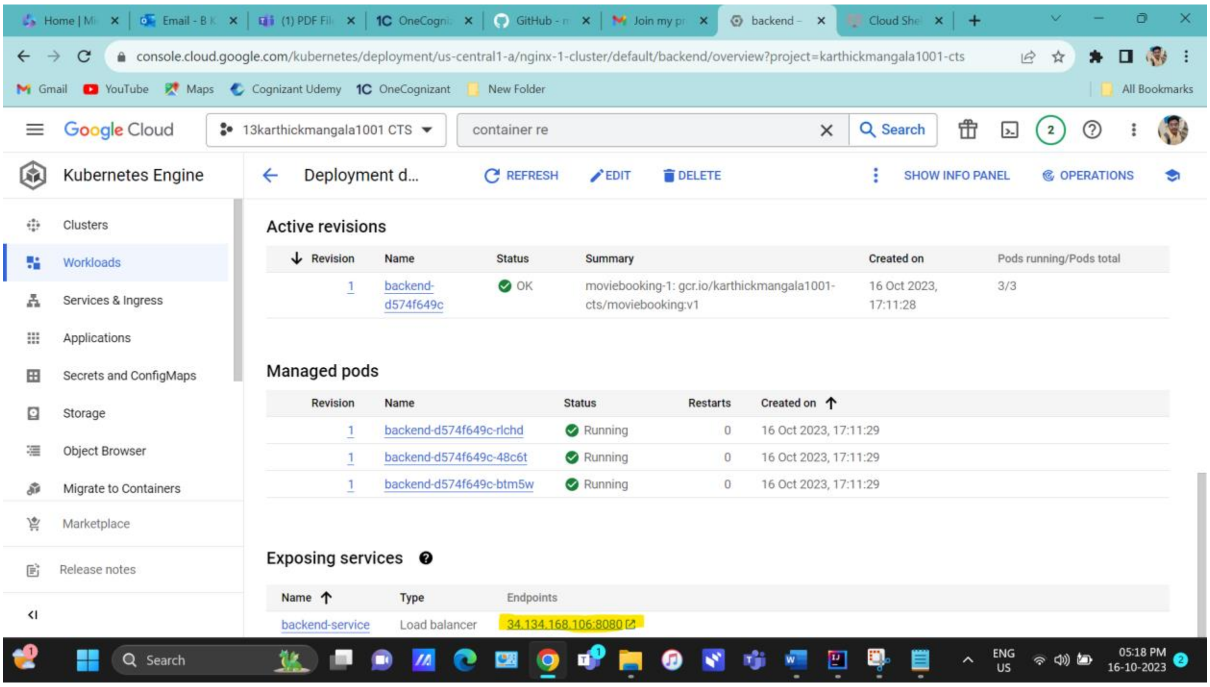
backend

Exposing your deployment

- ✓ Using an existing cluster: us-central1-a/nginx-1-cluster
- ✓ Creating a Deployment
- ✓ Waiting for Pods
- ✓ Creating new service
- Waiting for service to be ready

HIDE ALL STEPS

10) once successfully deployed backend we need to update the port number in frontend code highlighted (http://34.134.168.106:8080/)



console.cloud.google.com/kubernetes/deployment/us-central1-a/nginx-1-cluster/default/backend/overview?project=karthickmangala1001-cts

Active revisions

Revision	Name	Status	Summary	Created on	Pods running/Pods total
1	backend-d574f649c	OK	moviebooking-1: gcr.io/karthickmangala1001-cts/moviebooking:v1	16 Oct 2023, 17:11:28	3/3

Managed pods

Revision	Name	Status	Restarts	Created on
1	backend-d574f649c-rlchd	Running	0	16 Oct 2023, 17:11:29
1	backend-d574f649c-48c6t	Running	0	16 Oct 2023, 17:11:29
1	backend-d574f649c-btm5w	Running	0	16 Oct 2023, 17:11:29

Exposing services

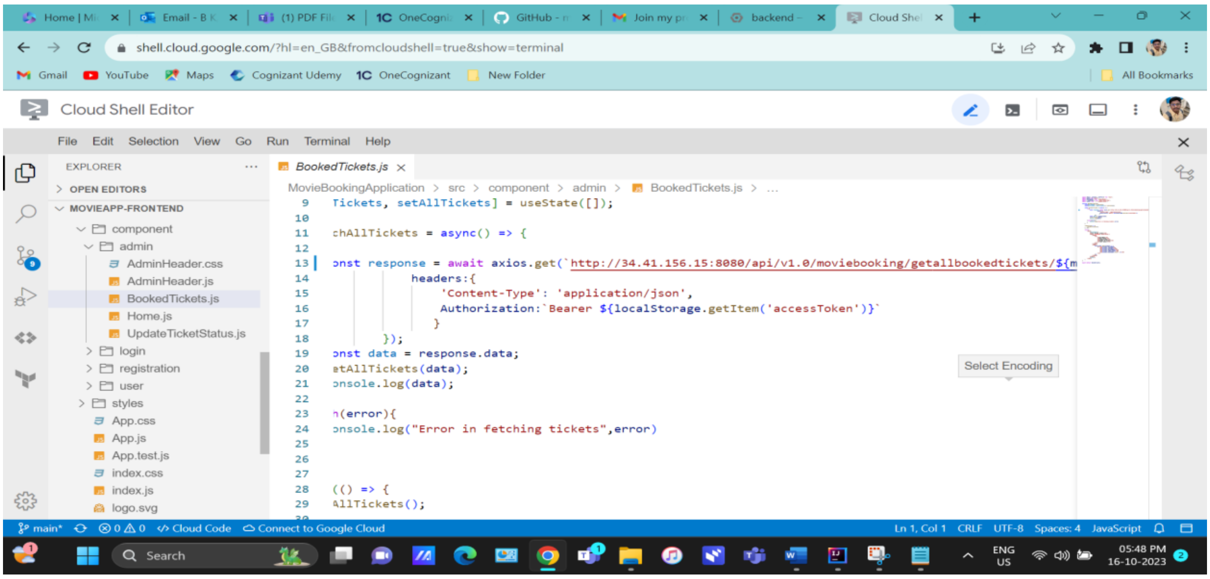
Name	Type	Endpoints
backend-service	Load balancer	34.134.168.106:8080

MovieBooking Application Frontend Deployment using (App engine) Steps:

1) cloud shell ->git clone https://github.com/Mangalakarthick/Movie-Application-using-Java-React.git (frontend)

2) open editor choose movieapp-frontend

3) changes in components file eg (bookedtickets.js) we have to change local port to backend cloud generated port no (note: once port change click to save)



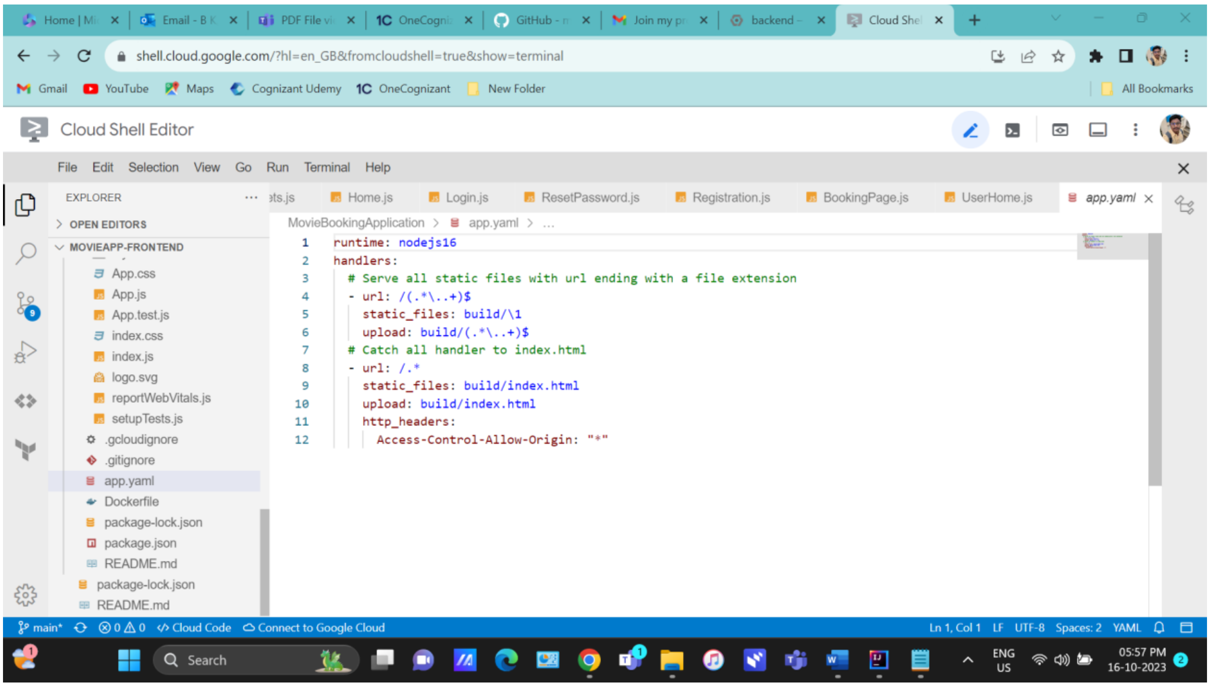
shell.cloud.google.com/?hl=en_GB&fromcloudshell=true&show=terminal

BookedTickets.js

MovieBookingApplication > src > component > admin > BookedTickets.js > ...

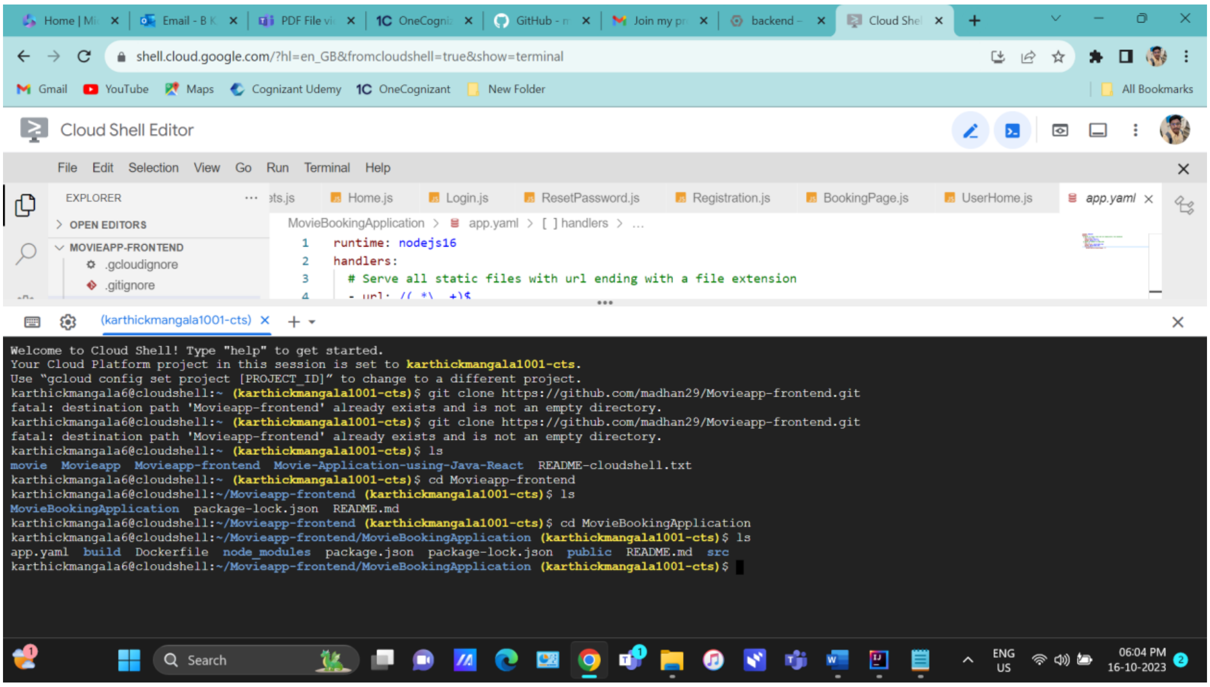
```
Tickets, setAllTickets] = useState([]);

chAllTickets = async() => {

onst response = await axios.get(`http://34.41.156.15:8080/api/v1.0/moviebooking/getallbookedtickets/${m
                headers:{
                    'Content-Type': 'application/json',
                    Authorization:`Bearer ${localStorage.getItem('accessToken')}`
                }
            });
onst data = response.data;
etAllTickets(data);
onsole.log(data);

h(error){
onsole.log("Error in fetching tickets",error)



(() => {
AllTickets();
```

4)we need to create app.yaml file



```
runtime: nodejs16
handlers:
  # Serve all static files with url ending with a file extension
  - url: /(.*\..+)$
    static_files: build/\1
    upload: build/(.*\..+)$
  # Catch all handler to index.html
  - url: /.*
    static_files: build/index.html
    upload: build/index.html
    http_headers:
      Access-Control-Allow-Origin: "*"
```

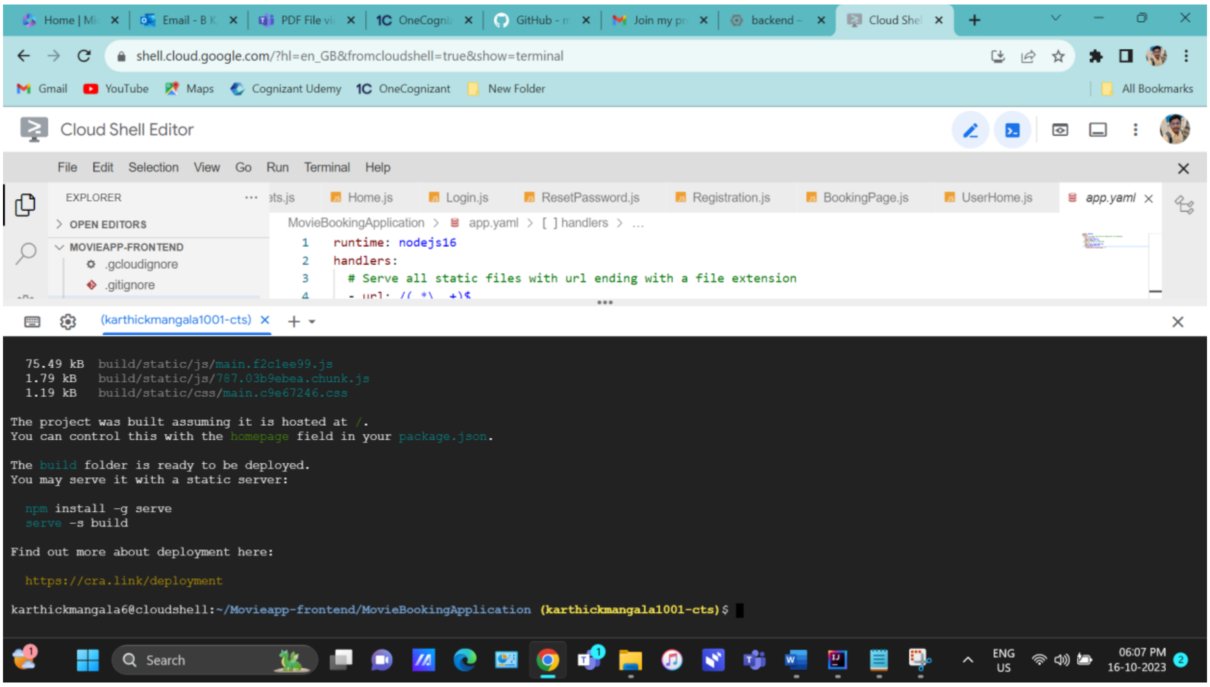
5) Cd Movieapp-frontend



```
Welcome to Cloud Shell! Type "help" to get started.
Your Cloud Platform project in this session is set to karthickmangala1001-cts.
Use "gcloud config set project [PROJECT_ID]" to change to a different project.
karthickmangala6@cloudshell:~ (karthickmangala1001-cts)$ git clone https://github.com/madhan29/Movieapp-frontend.git
fatal: destination path 'Movieapp-frontend' already exists and is not an empty directory.
karthickmangala6@cloudshell:~ (karthickmangala1001-cts)$ git clone https://github.com/madhan29/Movieapp-frontend.git
fatal: destination path 'Movieapp-frontend' already exists and is not an empty directory.
karthickmangala6@cloudshell:~ (karthickmangala1001-cts)$ ls
movie  Movieapp  Movieapp-frontend  Movie-Application-using-Java-React  README-cloudshell.txt
karthickmangala6@cloudshell:~ (karthickmangala1001-cts)$ cd Movieapp-frontend
karthickmangala6@cloudshell:~/Movieapp-frontend (karthickmangala1001-cts)$ ls
MovieBookingApplication  package-lock.json  README.md
karthickmangala6@cloudshell:~/Movieapp-frontend (karthickmangala1001-cts)$ cd MovieBookingApplication
karthickmangala6@cloudshell:~/Movieapp-frontend/MovieBookingApplication (karthickmangala1001-cts)$ ls
app.yaml  build  Dockerfile  node_modules  package.json  package-lock.json  public  README.md  src
karthickmangala6@cloudshell:~/Movieapp-frontend/MovieBookingApplication (karthickmangala1001-cts)$
```

6) npm install

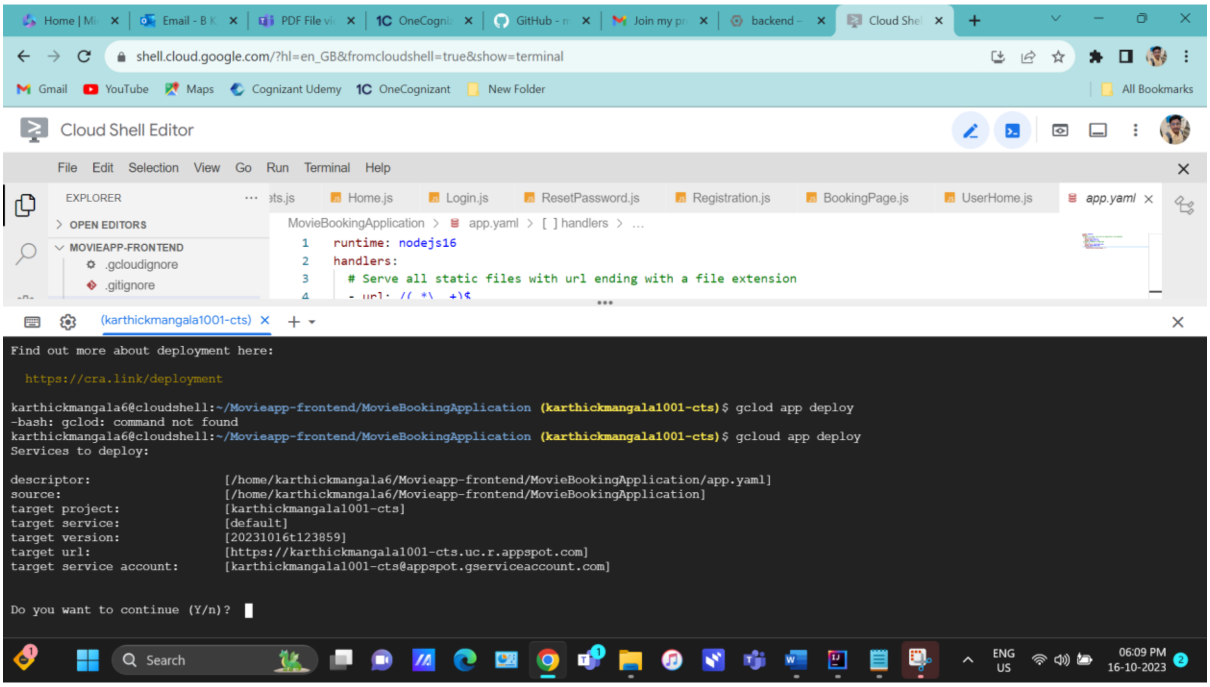
7)npm run build


shell.cloud.google.com/?hl=en_GB&fromcloudshell=true&show=terminal
Cloud Shell Editor
File Edit Selection View Go Run Terminal Help
EXPLORER
OPEN EDITORS
MOVIEAPP-FRONTEND
.gcloudignore
.gitignore
Home.js
Login.js
ResetPassword.js
Registration.js
BookingPage.js
UserHome.js
app.yaml
MovieBookingApplication > app.yaml > [ ] handlers > ...
(karthickmangala1001-cts)

```
runtime: nodejs16
handlers:
  # Serve all static files with url ending with a file extension
```

```
  75.49 kB  build/static/js/main.f2c1ee99.js
  1.79 kB   build/static/js/787.03b9ebea.chunk.js
  1.19 kB   build/static/css/main.c9e67246.css

The project was built assuming it is hosted at /.
You can control this with the homepage field in your package.json.

The build folder is ready to be deployed.
You may serve it with a static server:

  npm install -g serve
  serve -s build

Find out more about deployment here:

  https://cra.link/deployment

karthickmangala6@cloudshell:~/Movieapp-frontend/MovieBookingApplication (karthickmangala1001-cts)$
```

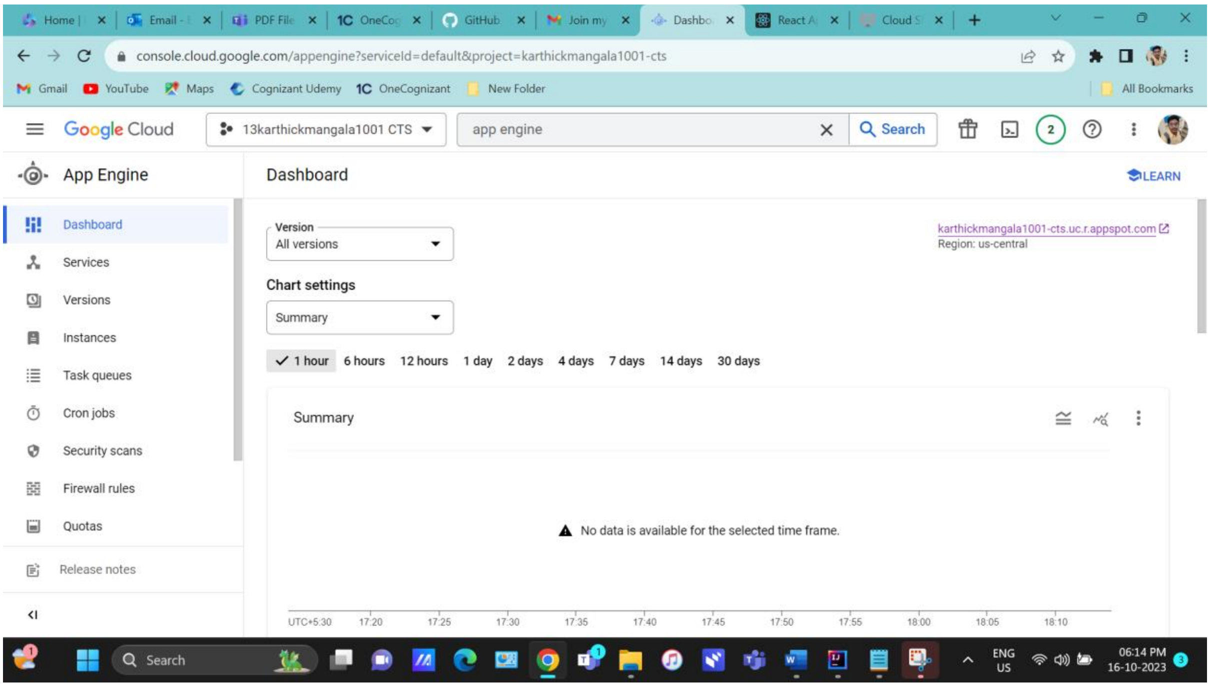
8) gcloud app deploy


shell.cloud.google.com/?hl=en_GB&fromcloudshell=true&show=terminal
Cloud Shell Editor
File Edit Selection View Go Run Terminal Help
EXPLORER
OPEN EDITORS
MOVIEAPP-FRONTEND
.gcloudignore
.gitignore
Home.js
Login.js
ResetPassword.js
Registration.js
BookingPage.js
UserHome.js
app.yaml
MovieBookingApplication > app.yaml > [ ] handlers > ...
(karthickmangala1001-cts)

```
runtime: nodejs16
handlers:
  # Serve all static files with url ending with a file extension
```

```
Find out more about deployment here:

  https://cra.link/deployment

karthickmangala6@cloudshell:~/Movieapp-frontend/MovieBookingApplication (karthickmangala1001-cts)$ gclod app deploy
-bash: gclod: command not found
karthickmangala6@cloudshell:~/Movieapp-frontend/MovieBookingApplication (karthickmangala1001-cts)$ gcloud app deploy
Services to deploy:

descriptor:                  [/home/karthickmangala6/Movieapp-frontend/MovieBookingApplication/app.yaml]
source:                      [/home/karthickmangala6/Movieapp-frontend/MovieBookingApplication]
target project:              [karthickmangala1001-cts]
target service:              [default]
target version:              [20231016t123859]
target url:                  [https://karthickmangala1001-cts.uc.r.appspot.com]
target service account:      [karthickmangala1001-cts@appspot.gserviceaccount.com]


Do you want to continue (Y/n)?
```

9)Now Moviebooking-frontend successfully deployed



console.cloud.google.com/appengine?serviceId=default&project=karthickmangala1001-cts

Dashboard

Version: All versions

karthickmangala1001-cts.uc.r.appspot.com

Region: us-central

Chart settings: Summary

No data is available for the selected time frame.