

MovieBookingApplication

JAVA FSE 1

Springboot-Angular-GCP

MovieBookingApp Backend Deployment using GCP Kubernetes steps:

- 1) Create MongoDB atlas by selecting GCP as a service and create one connection

After creating connection, you will get uri like this

```
spring.data.mongodb.uri=mongodb+srv://test:test@cluster0.pb951uc.mongodb.net/?retryWrites=true&w=majority
spring.data.mongodb.database=movieapp
```

Update this in application properties

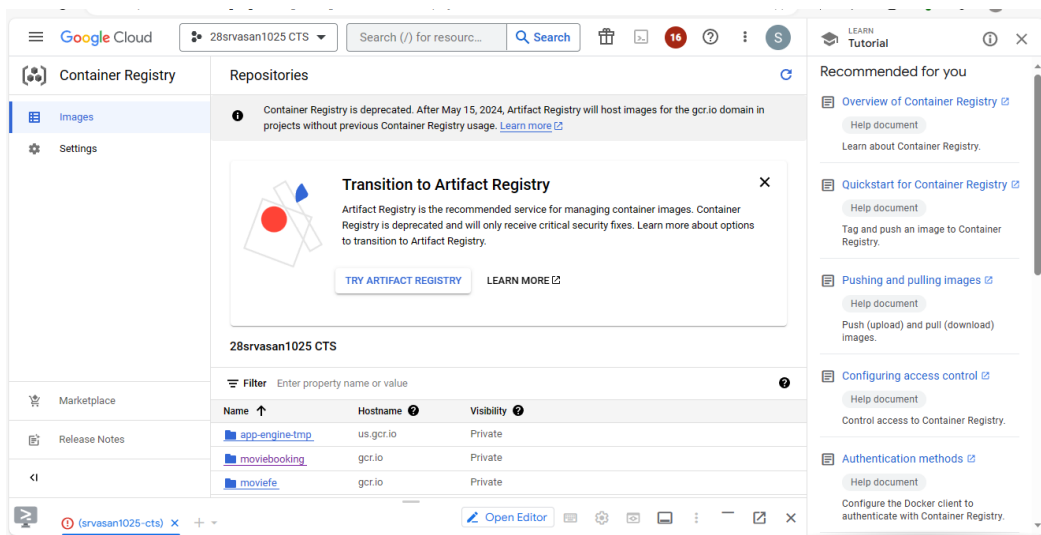
- 2) git clone <https://github.com/seenivasan08/Movieappbackenddeployment.git>
- 3) cd Movieappbackenddeployment
- 4) mvn clean install

```
srvasan2000@cloudshell:~/Movieappbackenddeployment (srvasan1025-cts)$ mvn clean install
[INFO] Scanning for projects...
[INFO]
[INFO] -----< com.rbp:moviebookingapp >-----
[INFO] Building moviebookingapp 0.0.1-SNAPSHOT
[INFO] -----[ jar ]-----
[INFO]
[INFO] --- maven-clean-plugin:3.2.0:clean (default-clean) @ moviebookingapp ---
[INFO] Deleting /home/srvasan2000/Movieappbackenddeployment/target
[INFO]
[INFO] --- maven-resources-plugin:3.2.0:resources (default-resources) @ moviebookingapp ---
[INFO] Using 'UTF-8' encoding to copy filtered resources.
[INFO] Using 'UTF-8' encoding to copy filtered properties files.
[INFO] Copying 1 resource
[INFO] Copying 0 resource
[INFO]
```

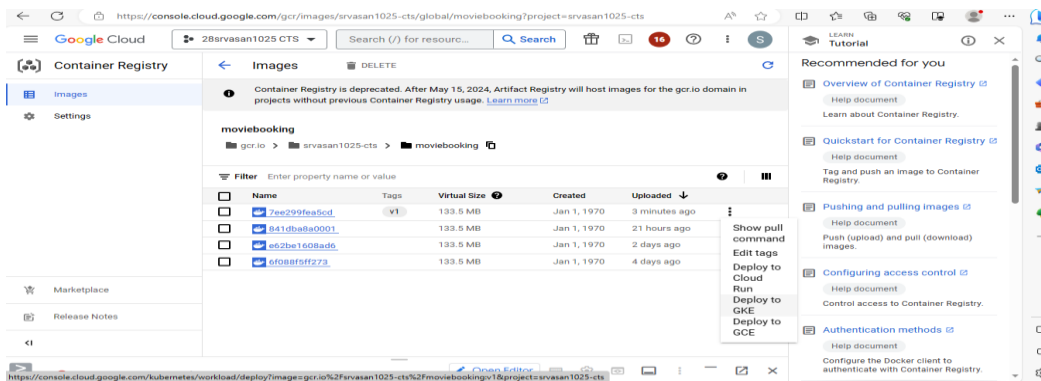
- 5) mvn com.google.cloud.tools:jib-maven-plugin:build -Dimage=gcr.io/srvasan1025-cts/moviebooking:v1

```
[INFO] Installing /home/srvasan2000/Movieappbackenddeployment/pom.xml to /home/srvasan2000/.m2/repository/com/rbp/moviebookingapp/0.0.1-SNAPSHOT/moviebookingapp-0.0.1-SNAPSHOT.pom
[INFO]
[INFO] BUILD SUCCESS
[INFO]
[INFO] Total time: 36.342 s
[INFO] Finished at: 2023-08-30T04:30:13Z
[INFO]
srvasan2000@cloudshell:~/Movieappbackenddeployment (srvasan1025-cts)$ mvn com.google.cloud.tools:jib-maven-plugin:build -Dimage=gcr.io/srvasan1025-cts/moviebooking:v1
[INFO] Scanning for projects...
Downloading from spring-snapshots: https://repo.spring.io/snapshot/com/google/cloud/tools/jib-maven-plugin/maven-metadata.xml
Downloading from spring-milestones: https://repo.spring.io/milestone/com/google/cloud/tools/jib-maven-plugin/maven-metadata.xml
[INFO]
[INFO] -----< com.rbp:moviebookingapp >-----
[INFO] Building moviebookingapp 0.0.1-SNAPSHOT
[INFO] -----[ jar ]-----
[INFO]
[INFO] --- jib-maven-plugin:3.3.2: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/srvasan1025-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 credentials from Docker config (/home/srvasan2000/.docker/config.json) for gcr.io/srvasan1025-cts/moviebooking:v1
[INFO] Using base image with digest: sha256:b4f65e8cfe697471f7aa84139df33240e0823025d699a771c4a6a88d8eac07fc
[INFO]
[INFO] Container entrypoint set to [java, -cp, @/app/jib-classpath-file, com.rbp.moviebookingapp.MoviebookingappApplication]
```

6) Go to Container Registry in GCP



7) click -> moviebooking -> Deploy to GKE



8) Here click on expose and put your bakend port no

Kubernetes Engine

Create a deployment

SHOW INFO PANEL HELP ASSISTANT LEARN

☒ Expose deployment as a new service

Port mapping

Item 1

Port 1: 8085

Target port 1: 8085

Protocol 1: TCP

+ ADD PORT MAPPING

Service type: Load balancer

DEPLOY

Now backend application is deploying

Google Cloud

28rvasan1025 CTS

Kubernetes Engine

Deployment d...

EDIT DELETE SHOW INFO PANEL LEARN

movieappbackend

Creating a Kubernetes Cluster

- Creating a Kubernetes Cluster
- Creating a Deployment
- Waiting for Pods
- Creating new service
- Waiting for service to be ready

HIDE ALL STEPS

Recommended for you

- Overview of Container Registry
- Quickstart for Container Registry
- Pushing and pulling images
- Configuring access control
- Authentication methods

Now MovieBookingApp backend is Deployed on GCP Kubernetes.

Google Cloud

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Kubernetes Engine

Deployment d...

OPERATIONS HELP ASSISTANT LEARN

Revision	Name	Status	Summary	Created on	Pods count
1	movieappbackend-588d95876	OK	moviebooking-1: gor.io/mvasan1025-cts/moviebooking-v1	Aug 30, 2023, 10:11:59 AM	3/3

Managed pods

Revision	Name	Status	Restarts	Created on
1	movieappbackend-588d95876-7lwtb	Running	0	Aug 30, 2023, 10:11:59 AM
1	movieappbackend-588d95876-n4kb	Running	0	Aug 30, 2023, 10:11:59 AM
1	movieappbackend-588d95876-prodk	Running	0	Aug 30, 2023, 10:11:59 AM

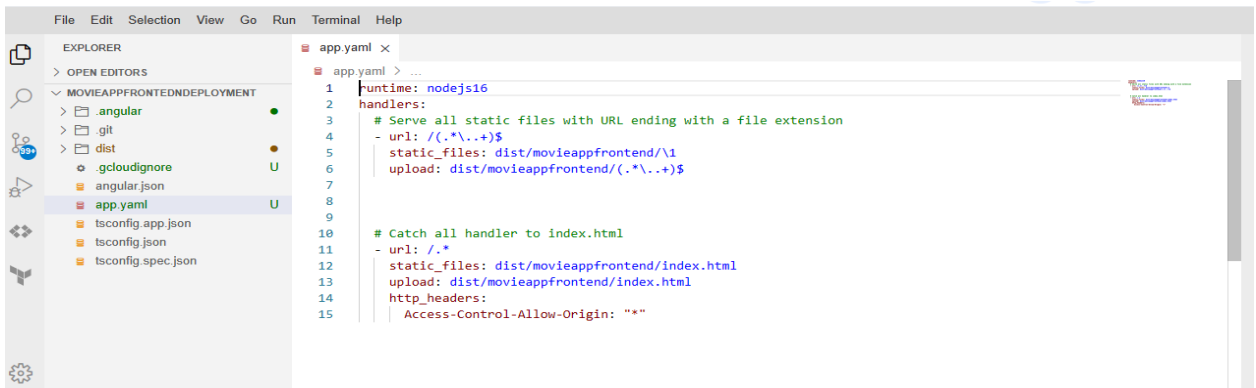
Exposing services

Name	Type	Endpoints
movieappbackend-service	Load balancer	34.68.250.101:8080

From using this IP address <http://34.68.250.101:8080> you need to update the frontend code.

MovieBookingApp Frontend Deployment using GCP appEngine steps:

- 1) git clone <https://github.com/seenivasan08/movieappfrontedndeployment.git>
- 2) need to create app.yaml file in code



- 3) cd movieappfrontedndeployment
- 4) npm install
- 5) npm install -g @angular/cli
- 6) ng build

```
npm WARN deprecated @npmcli/move-file@2.0.1: This functionality has been moved to @npmcli/fs
added 994 packages, and audited 995 packages in 29s
104 packages are looking for funding
  run 'npm fund' for details
2 vulnerabilities (1 low, 3 moderate, 1 high)
To address issues that do not require attention, run:
  npm audit fix
To address all issues (including breaking changes), run:
  npm audit fix --force
Run 'npm audit' for details.
srvasan2000@cloudshell:~/movieappfrontedndeployment (srvasan1025-cts)$ npm install -g @angular/cli
added 244 packages in 14s
36 packages are looking for funding
  run 'npm fund' for details
srvasan2000@cloudshell:~/movieappfrontedndeployment (srvasan1025-cts)$ ng build
  Browser application bundle generation complete.
  Copying assets complete.
  Index html generation complete.
Initial Chunk Files | Names | Raw Size | Estimated Transfer Size
main.0367a215209d3.js | main | 481.41 KB | 188.04 KB
```

- 7) gcloud app deploy

```
Warning: bundle initial exceeded maximum budget. Budget 500.00 kB was not met by 338.04 kB with a total of 838.04 kB.
srvasan2000@cloudshell:~/movieappfrontedndeployment (srvasan1025-cts)$ ls
angular.json  app.yaml  dist  node_modules  package-lock.json  README.md  src  tsconfig.app.json  tsconfig.json  tsconfig.spec.json
srvasan2000@cloudshell:~/movieappfrontedndeployment (srvasan1025-cts)$ rm -rf node_modules
srvasan2000@cloudshell:~/movieappfrontedndeployment (srvasan1025-cts)$ rm package-lock.json
srvasan2000@cloudshell:~/movieappfrontedndeployment (srvasan1025-cts)$ rm package-lock.json
srvasan2000@cloudshell:~/movieappfrontedndeployment (srvasan1025-cts)$ rm README.md
srvasan2000@cloudshell:~/movieappfrontedndeployment (srvasan1025-cts)$ rm -rf src
srvasan2000@cloudshell:~/movieappfrontedndeployment (srvasan1025-cts)$ gcloud app deploy
Services to deploy:
Descriptor:      [/home/srvasan2000/movieappfrontedndeployment/app.yaml]
Source:         [/home/srvasan2000/movieappfrontedndeployment]
Target project: [srvasan1025-cts]
Target service: [default]
Target version: [20230830c045620]
Target url:     [https://srvasan1025-cts.uc.r.appspot.com]
Target service account: [srvasan1025-cts@appspot.gserviceaccount.com]
Do you want to continue (Y/n)? y
Beginning deployment of service [default]...
Created .gcloudignore file. See 'gcloud topic gcloudignore' for details.
Uploading 16 files to Google Cloud Storage
%
```

Now MovieBookingApp frontend is deployed on GCP appEngine

From using this IP address <https://srvasan1025-cts.uc.r.appspot.com/> you need to update the backend code