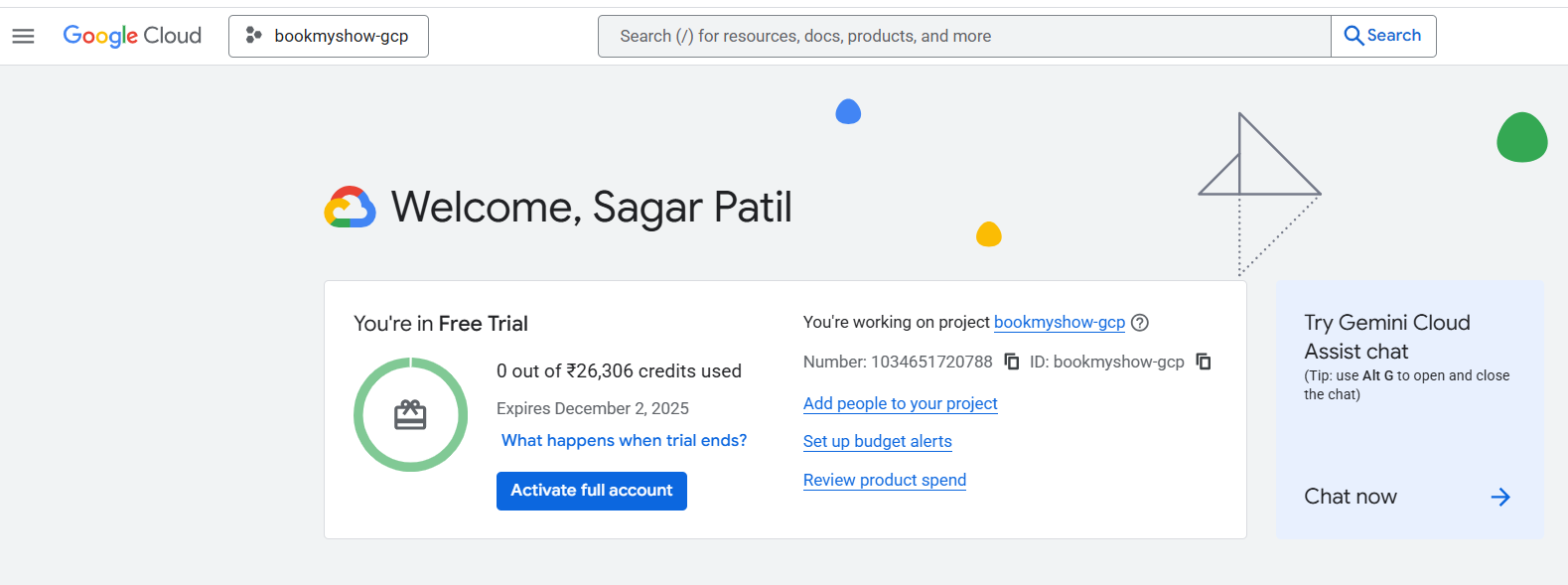
**BookMyShow GCP Project – Step-by-Step with Screenshots**

**Task 1 – Setup GCP Project**

**Console Steps**

1. Open Google Cloud Console.
2. Click **Select Project → New Project**
   * Name: bookmyshow-gcp
   * Save the **Project ID** (e.g., bookmyshow-123456).
3. Enable required APIs:
   * **Compute Engine**
   * **Cloud Run**
   * **Cloud SQL Admin**
   * **Artifact Registry**
   * **Cloud Build**



**CLI**

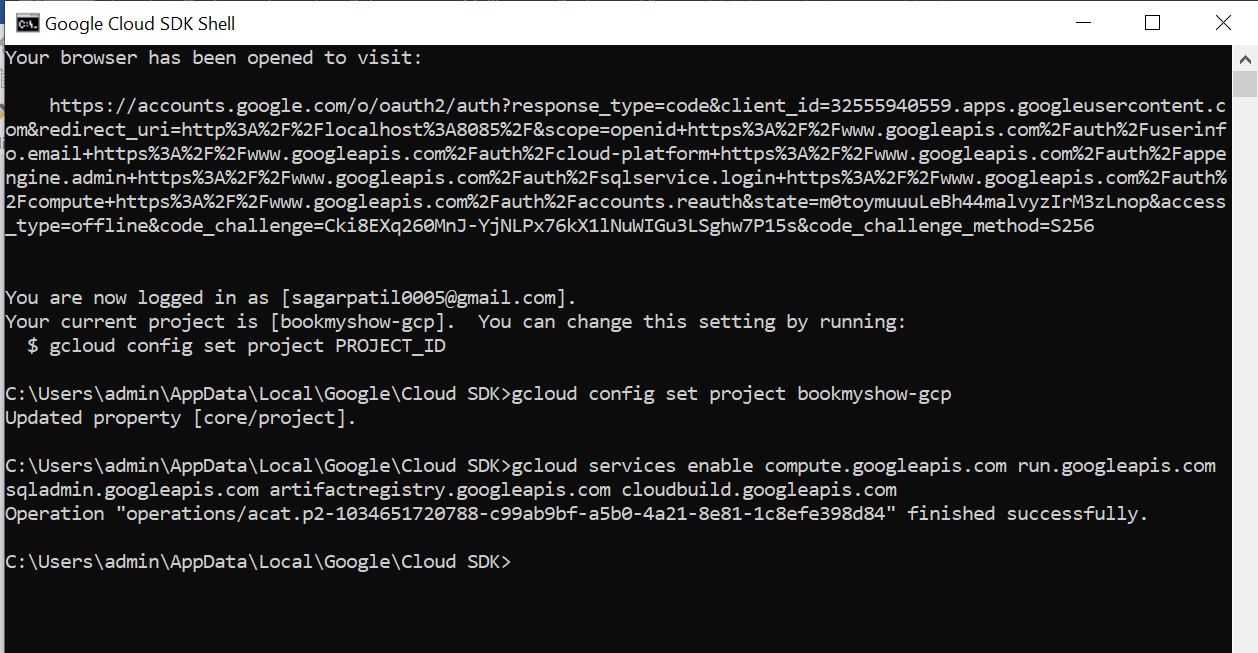
gcloud auth login

gcloud config set project bookmyshow-gcp

gcloud services enable compute.googleapis.com \

run.googleapis.com sqladmin.googleapis.com \

artifactregistry.googleapis.com cloudbuild.googleapis.com



**Task 2 – Clone Repo & Init Terraform**

**Create terraform service account for authentication**

gcloud iam service-accounts create terraform-sa --display-name="Terraform Service Account"

**assign the roles to service account**

gcloud projects add-iam-policy-binding bookmyshow-gcp --member="serviceAccount:terraform-sa@bookmyshow-gcp.iam.gserviceaccount.com" --role="roles/editor"

gcloud projects add-iam-policy-binding bookmyshow-gcp --member="serviceAccount:terraform-sa@bookmyshow-gcp.iam.gserviceaccount.com" --role="roles/storage.admin"

Create Json file for authentication :

gcloud iam service-accounts keys create key.json [--iam-account=terraform-sa@bookmyshow-gcp.iam.gserviceaccount.com](mailto:--iam-account=terraform-sa@bookmyshow-gcp.iam.gserviceaccount.com)

Authentication :

gcloud auth application-default login --project=bookmyshow-gcp

Create bucket :

Using console cli .

gsutil mb -p bookmyshow-gcp -c STANDARD -l asia-south1 -b on gs://bookmyshow-terraform-state/

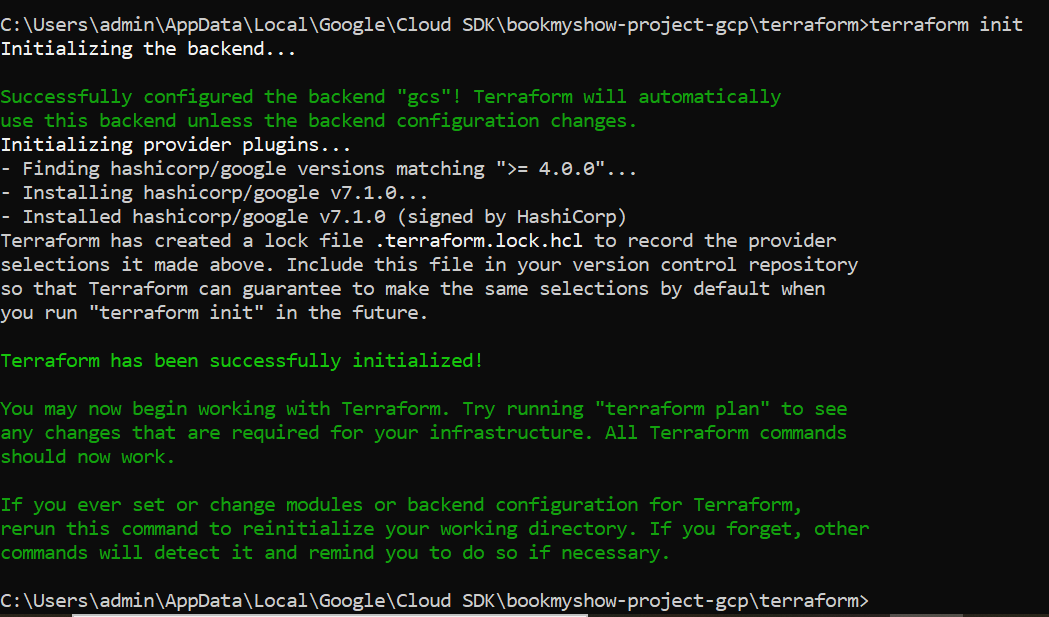


**CLI**

git clone https://github.com/sagarpatilbox/bookmyshow-project-gcp.git

cd bookmyshow-project-gcp\terraform

terraform init



**Task 3 – Configure Variables**

Edit terraform.tfvars:

project\_id = "bookmyshow-gcp"

region = "asia-south1"

app\_image = "asia-south1-docker.pkg.dev/bookmyshow-gcp/bookmyshow/app:latest"

db\_password = "ChangeMe123!"

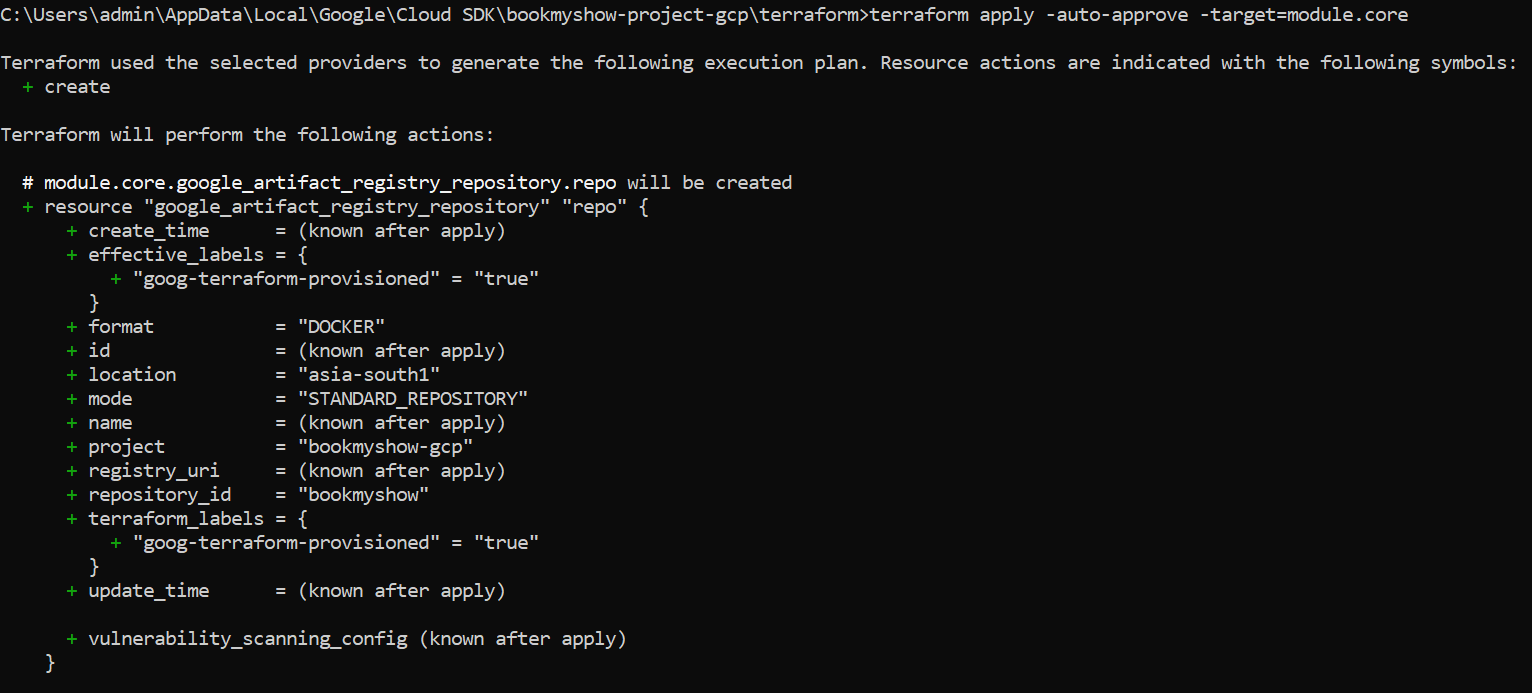
use\_read\_replica = true

📸 Screenshot: *Cloud Shell editor with variables*

**Task 4 – Provision Core Infra**

terraform apply -auto-approve -target=module.core

This creates: Artifact Registry, GCS bucket, Cloud SQL, Redis, Cloud Run.



📸 Screenshot: *Terraform apply summary*

**Task 5 – VM Scaling (MIG + LB)**

terraform apply -auto-approve -target=module.mig\_lb

Creates:

* Instance Template + Startup Script
* Managed Instance Group (multi-zone)
* Autoscaler (CPU)
* HTTPS Load Balancer

📸 Screenshot: *GCP Console showing MIG + LB*

**Task 6 – CI/CD Pipeline**

Create Cloud Build trigger (GitHub repo):

gcloud beta builds triggers create github \

--repo-name="terraform-gcp-bookmyshow-repo" \

--repo-owner="<your-github-username>" \

--branch-pattern=".\*" \

--build-config="cloudbuild.yaml"

📸 Screenshot: *Cloud Build trigger page*

**Task 7 – Outputs & Verification**

terraform output

Check URLs:

gcloud run services describe bookmyshow-app --region us-central1 --format "value(status.url)"

📸 Screenshot: *Cloud Run service URL*

**Task 8 – Testing & Upload**

**Push app image**

gcloud auth configure-docker us-central1-docker.pkg.dev

docker build -t us-central1-docker.pkg.dev/bookmyshow-123456/bookmyshow/app:latest .

docker push us-central1-docker.pkg.dev/bookmyshow-123456/bookmyshow/app:latest

**Upload static assets**

gsutil cp -r static/\* gs://bookmyshow-static-bucket/

**Trigger build**

gcloud builds triggers run bookmyshow-trigger --branch=main

📸 Screenshot: *Cloud Build execution log*

✅ Final Deliverables:

* **Architecture Diagram**
* **CI/CD Flow Diagram**
* **Screenshots for each Task**
* **DEPLOYMENT.md with instructions**