**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**

📸 Screenshot: *Project creation screen*

**CLI**

gcloud auth login

gcloud config set project bookmyshow-123456

gcloud services enable compute.googleapis.com \

run.googleapis.com sqladmin.googleapis.com \

artifactregistry.googleapis.com cloudbuild.googleapis.com

📸 Screenshot: *CLI after enabling services*

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

**CLI**

git clone https://github.com/<your-username>/terraform-gcp-bookmyshow-repo.git

cd terraform-gcp-bookmyshow-repo

terraform init

📸 Screenshot: *Terraform init successful*

**Task 3 – Configure Variables**

Edit terraform.tfvars:

project\_id = "bookmyshow-123456"

region = "us-central1"

app\_image = "us-central1-docker.pkg.dev/bookmyshow-123456/bookmyshow/app:latest"

db\_password = "SuperSecret123"

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**