DEPLOY A STREAMLIT APP WITH A DOCKER IMAGE & GOOGLE CLOUD RUN

1. Need three files3
    a. app.py --- your python code that built the streamlit app
    b. requirements.txt --- python libraries that your app requires (dependencies)
    c. Dockerfile --- instructions to build the Docker image
2. We will use Google Cloud Build to push the docker image to Artifact Registry (lets you manage Docker container images), and use Google Cloud Run to deploy the streamlit app
3. Enable the following APIs in your Google Cloud Console, if you have not done so:
    a. Cloud Build API
    b. Compute Engine API
    c. Artifact Engine API
    d. Cloud Run Admin API
    e. Identity and Access Management (IAM) API
4. Enable Billing for your project
5. Enable the following roles, if you have not done so:
    a. Cloud Build: roles/cloudbuild.builds.builder
    b. Compute Engine: roles/storage.objectUser & roles/artifactregistry.writer
    c. roles/iam.serviceAccountUser
    d. roles/run.admin
6. Open a terminal window from Google Cloud Console, and make a directory where we can upload the 3 files from step 1
7. Create a new repository in your location (e.g. us-west2) with description “Docker repository”, exact command below:
    a. gcloud artifacts repositories create quickstart-docker-repo --repository-format=docker --location=us-central1 --description="Docker repository"
    b. gcloud artifacts repositories list
8. Build an image using the Dockerfile, use the command below:
    a. gcloud builds submit --region=us-central1 --tag us-central1-docker.pkg.dev/aviapi/quickstart-docker-repo/quickstart-image:tag1
9. With the above step, a docker image name XYZ-image using your Dockerfile will be pushing the image to Artifact Registry
10. Open Cloud Run in the Google Cloud console…Select DEPLOY CONTAINTER and select Service…then select your “Container image URL” which is what got from step 8 in the terminal
11. Provide a service name, select allow unauthenticated invocations, and if you have .env variables then select “Variables & Secrets” under Container(s)…Then finally select CREATE and that is it.