**Docker-ECR-ECS-Fargate Tutorial**

**Create Docker File:**

# set base image (host OS)

FROM python:3.8.5-slim-buster

ENV REGION=eu-west-1

# set the working directory in the container

WORKDIR /code

# copy the dependencies file to the working directory

COPY requirements.txt .

# install dependencies

RUN pip install -r requirements.txt

# copy the content of the local src directory to the working directory

COPY . .

# command to run on container start

CMD [ "python", "./twitter-kinesis.py" ]

**Build Docker image**

docker build -t <docker\_name> **.**

docker run <docker\_name>

**AWS Services**

1. Create a secret via AWS Secrets Manager. Name it as listed in the code. Put in it a json with the keys as listed in the code and values as you got from Twitter.
2. Create a new kinesis data stream. Give it the same name as listed in our code. As for shards we will go with 5 for starters.
3. Create an IAM role for Fargate and give it permission to read our secret and push data to our kinesis data stream.
4. ECR – create a repository. Fallow the steps it gives for uploading a docker image to it. Save the URI of the repo for later.
5. Create a cluster in ECS. Choose Fargate. Choose name.
6. Go to Task Definitions. Select Fargate. Give task def name. select task memory and CPU. Click on ‘add container’ button. Give container name. paste URI from step 1 (from ECR). Click ‘add’ in the bottom. Click ‘create’ on the bottom.
7. Click ‘View task definitions’.
8. Click on ‘Actions’ dropdown and select ‘Run Task’. Select Fargate as the launch type. Select VPC (default is fine), select subnet/s. click ‘Run Task’.
9. Wait on task and wait for ‘Running’ state.
10. Optional: look in cloud watch logs and see prints from your code.
11. Go to Kinesis data stream and look in metrics.
12. If you want to update the image:

<https://stackoverflow.com/questions/48099941/how-to-update-container-image-in-aws-fargate>