Recap

Model ⟶ Stacking regressor

⟶

Dvc Pipeline

↓

Model log ⟶ Model Registry

↓

Staging

CI ⟶ Model ⟶ Tests ⟶ Model loading

⟶ Model Performance ⟶ Thresh

Error ↑ ⟶ Fail

else

Model Registry ⟵ Promote the ⟵ Pass

model

↓

Production Stage.

API ⟶ Fast API ⟶ Faster server

↓

Data validation ⟶ Pydantic

app·py ⟶ Data class ⟶ Input ⟶ datatypes

Model ──load──⟶ 1) Prep ⟶ FE

2) Model ⟶ Prediction

Model ———— ——→ 1) Prep ——→ FE
                 2) Model ——→ Predictions
         ↓
    Production

Input ——→ Raw ——→ Cleaning ——→ Missing vals drop
                            ——→ Features Build
                                      ↓
Predictions ←—— Model ←—— FE
in mins

Utility script ——→ 1 Random Row ——→ app.py
                              ✓ Predict ——→ POST
                         Response ——→ Prediction.
                                  ↳ Response code

Model ——→ Promoted ——→ Production.
              ↓
         Docker image ——→ Dockerfile ——→ set of
                                          instructions
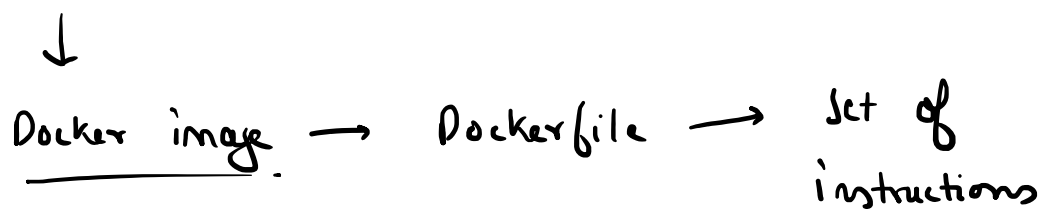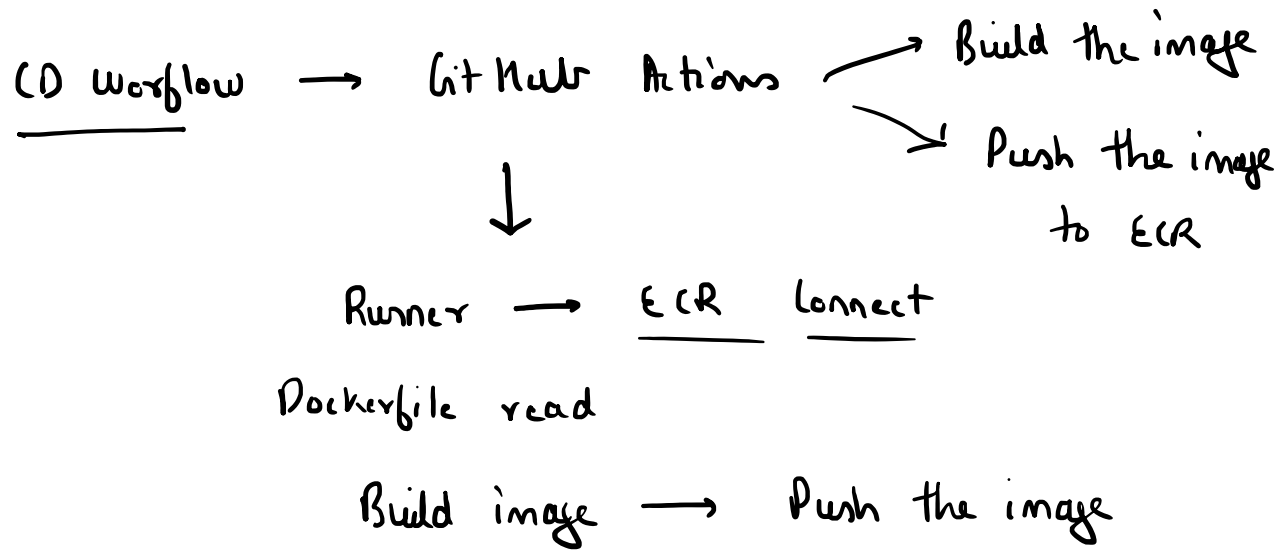
in layers where each command ——→ Image layers

    Run it ——→ Container ——→ localhost ——→ Welcome page.

ECR ——→ AWS Elastic Container Registry ——→ Repo

                                      ——→ Build the image

CD Worflow $\longrightarrow$ Git Hub Actions $\longrightarrow$ Build the image

$\searrow$ Push the image
to ECR

$\downarrow$

Runner $\longrightarrow$ ECR Connect

Dockerfile read

Build image $\longrightarrow$ Push the image

Deployment