SAS Viya 3.5 (or 9.4) Platform with R, Python Client Containers and Postgres Backend

This is very easy to set up, but it is a good idea to understand what is going on. Docker Compose provides a mechanism to start and stop related containers in one cohesive set of instructions. I have not included any autoscaling as it is not needed for this example. If you want to do this, it is better to switch to a Kubernetes style platform. I use Docker Compose here because it is an easy way to make this happen.

The tradeoffs contemplated working on this platform is balancing size with setup complexity. Some of the size constraints just cant be overlooked. The Viya 3.5 image is nearly 20GB.

Prerequisites:

There are a number of local disk volumes that must be mapped to the containers.

There are a few parameters that are used in the docker-compose.yml for setting volumes. You are also required to create the

export PGDATAPATH=/Users/samuelcroker/SAS\_Platform/data\_postgres

export PLPATH = /Users/samuelcroker/SAS\_Platform/

That’s it! Everything else in this document is just documentation.

Compose YML

db\_pg:

image: postgres:platform

build:

context: ./postgres\_build

dockerfile: Dockerfile-postgres

container\_name: sas-postgres

volumes:

- ${PGDATAPATH}:/var/lib/postgresql/data/pgdata

restart: always

ports:

- 5432:5432

environment:

POSTGRES\_PASSWORD: Orion123

PGDATA: /var/lib/postgresql/data/pgdata

VIRTUAL\_HOST: sasnet.postgres

networks:

- sasbridge