Creating a Developer Environment

Outcomes

1.1 Access a shell prompt and issue commands with correct syntax
1.4 Create and edit text files
1.5 Create, delete, copy, and move files and directories
1.9 Utilize a package management system
2.1 Configure container engines, create, and manage containers
2.2 Create a container image
2.3 Build a container image
2.4 Create and backup container volumes
2.5 Deploy a database in a container
3.1 Use a container orchestration system to run a multi-container environment

Background

Imagine that you are a recent hire for a frog-themed startup named ElFroggo. You are part of the operations team and you recieve the following email:

> Hello and Welcome to ElFroggo,
>
> I'm looking for options for a quick interface to our frog database front-end and I'm thinking about using Flask and PostgreSQL. Do you have some way I could test this environment on my Desktop? I'd like a couple of rows of test data in a table called `Frogs` with the columns `ID`, `Name`, `ScientificName`, `Color`. I'd also like a Flask example that shows how to use the `psycopg2-binary` package to connect to the db.
>
> Thanks,
>
> — Susan J. Developer

Design a system that meets Susan's needs using either Docker Compose or Kubernetes.

Deliverables

Submit the files that you would give to Susan.

Resources

- Psoycopg documentation
- How to Use the Postgres Docker Official Image
- Docker Compose with Python and PostgreSQL