A close-up of a logo

Description automatically generatedEin Bild, das Person, draußen, sitzend, Mann enthält.

Automatisch generierte Beschreibung

Docker Assignment

# Assignment

* Take an existing Dockerfile and optimize it for build speed and image size.
* Use multi-stage builds where appropriate.
* Set up a custom Docker network and connect multiple containers to it.
* Use Docker commands to inspect and manage the network.
* Create and manage Docker volumes to persist data for your containers.
* Use named volumes and bind mounts and demonstrate how they can be used in a multi-container setup.
* Backup and restore data from Docker volumes.
* Implement security best practices in your Docker setup, including user permissions, image vulnerability scanning, and secret management.
* Configure Docker to run containers with the least privilege.
* Use tools like Docker Bench for Security to audit your Docker environment.

# Requirements

* Docker 20.10 or later
* Docker Compose 1.29 or later
* Advanced Linux command-line knowledge
* GitHub account

# Note

* Complete the tasks as specified.
* Submit your project in a GitHub repository.
* Ensure your submission is well-documented.
* Include a README file with instructions on how to set up and run your project.

# Deliverables

* GitHub repository link with all source code and documentation.
* README file with setup instructions.
* Well-documented code with comments.
* Dockerfiles, Docker Compose files.

# Bonus Question

* Implement a log aggregation system for your Dockerized application to collect, parse, and visualize logs, providing insights into the performance and behaviour of your application.