Assignment 3: Swiftcart Docker Containerization – Brief Report

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BDV 102: Interactivity and Databases

The primary goal for this third and final assignment was to containerize the e-commerce backend created in the previous two assignments. This report will include a GitHub link to the source code, breakdown of the Dockerfile and docker-compose.yml file. Lastly, the screenshot of the Docker Hub repository with the pushed image.

**- Source Code -**

**GitHub Repository**: [**https://github.com/danielmason89/bdv\_102\_assignment\_3\_docker\_containerization\_daniel\_mason**](https://github.com/danielmason89/bdv_102_assignment_3_docker_containerization_daniel_mason)**.**

**- Dockerfile -**

Below are the contents of Dockerfile used in this project:

# Uses official Node.js Alpine image

FROM node:22.14.0-alpine

# Creates and uses the /app directory

WORKDIR /app

# Copy only package.json and package-lock.json first

COPY package\*.json ./

# Installs the dependencies

RUN npm install

# Copies the rest of the project files

COPY . .

# Sets the PORT environment variable within the container, (fallback)

ENV PORT=3000

# Exposes a port so Docker can map to it

EXPOSE 3000

# Starts the app

CMD ["npm", "start"]

**- docker-compose.yml -**

The contents of the **docker-compose.yml** for local testing:

services:

  web:

    build: .

    ports:

      - "3000:3000"

    env\_file:

      - .env

    environment:

      PORT: 3000

Here’s a screen shot of the container image taken from dockerhub:

**A screenshot of a computer

AI-generated content may be incorrect.**

and a link to the repository where the image is, <https://hub.docker.com/repositories/danmasson0>.

*References*

AWS. (n.d.). *What is Cloud Native?*. AWS. <https://aws.amazon.com/what-is/cloud-native/>.

Docker. (n.d.). What is Docker?. Docker. <https://docs.docker.com/get-started/docker-overview/>.

Fireship. (August 24, 2020). *Learn Docker in 7 Easy Steps – Full Beginner’s Tutorial* [Video]. Youtube. <https://www.youtube.com/watch?v=gAkwW2tuIqE>.   
Tiny Technical Tutorials. (August 15, 2022). *Containers in AWS | For Absolute Beginners* [Video]. Youtube. <https://www.youtube.com/watch?v=NI34uF7VVP8>.