SIT323/SIT737- Cloud Native Application Development 5.1P: Containerisation of a simple web application using Docker

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Overview

This task involves crafting a Docker image for a web application using a Dockerfile. Initially, you'll designate the base image and install requisite dependencies. Subsequently, you'll incorporate the application code into the image and expose the requisite ports. Finally, utilizing Docker Compose, you'll deploy the image as a container and validate the application's functionality.

Part I

The required tools for doing this task are as follows:

- Git (https://github.com)
- Visual Studio code (https://code.visualstudio.com/)
- Node.js (https://nodejs.org/en/download/)
- Docker

Instructions

You need to apply the following steps to Dockerise your application: *(Make sure to follow your tutor in the workshop session)*

1. Install Docker
2. Clone the sample web application *(you can clone your app from the previous ontrack task, or if you are going to develop an application for HD tasks you can proceed with that one- there is no limitation for the app)*
3. Create a Dockerfile
4. Build the Docker image
5. Create a Docker Compose file
6. Start the Docker Compose environment
7. Test the application
8. Push the Docker image to a registry

Submission Details

- Once you are done, push your code and Dockerfile into your repo, giving the repository the following name sit323/737-2024-t1-prac5p, ultimately this should read as https://github.com/username/ sit323/737-2024-t1-prac5p. You can copy/paste the link of your public repo for your submission through the OnTrack (screenshot of the steps/ codes is optional to support your submission).
- Ensure that detailed documentation is included with your code, offering step-by-step instructions that explain the process undertaken for this part. Failure to provide this documentation will result in an incomplete mark for the task.