IMY 220
Practical 1
Docker

Due: Friday 2 August @ 9:30

The submission instructions are available on ClickUP. Any deviation from these instructions will result in a 10% deduction from your mark.

Instructions

- The aim of this practical is to get a better understanding of how to use Docker to create a containerised NodeJS Express application.
- Download the *practical-1.zip* file from ClickUP. You are not allowed to remove any code from these files, although you will may to write additional Javascript (and edit existing code) and create the required Docker files to Dockerise the application.
- You are required to a text file called *instructions.txt* that includes the Docker commands needed to create and run your Docker image.
- Include your name and student number in any files that you have worked on.

Section 1

You are required to Dockerise the Express application with these requirements:
- Write the Dockerfile to containerise the application.
- You need to set your working directory as */app*.
- The *node_modules* folder and any env files should not be copied to the container.
- The image should be called uXXXXXXXX, where uXXXXXXXX is your student numbe
- Use the latest version of NodeJS available.
- The container should be called uXXXXXXXX, where uXXXXXXXX is your student number.
- The Express server is running on port 3000, your container should map port 3000 to port 3005 (you should be able to query the Express application on your host machine at localhost:3005).
  - You should add the port as an environmental variable to the Dockerfile.

Submission Files

Submit only the following file(s) according to the submission instructions.
- server.js
- Dockerfile
- .dockerignore
- instructions.txt

Submission Instructions

- ZIP all submission files (using a tool like 7Zip or WinRar) into a ZIP file called *uXXXXXXXX-P1.zip*, where uXXXXXXXXX is your student number.
- Submit your ZIP file before 9:30 to avoid any late submissions.