Assignment 2(B)

Docker is the leading container platform which provides both hardware and software encapsulation by allowing multiple containers to run on the same system at the same time each with their own set of resources (CPU, memory, etc) and their own dedicated set of dependencies (library version, environment variables, etc.).

Docker for Windows used to only setup a Linux-based Docker development environment (slightly confusing, we know), but the public beta version now sets up both Linux and Windows Docker development environments, and we're working on improving Windows container support and Linux/Windows container interoperability.

With the public beta installed, the Docker for Windows tray icon has an option to switch between Linux and Windows container development.

Requirements: -

- Minimum Windows 10 (Home and All Other Editions)
- Hyper-V (In-Built and can be Enabled)
- Only 64bit Processor Architecture
- Virtualization Enablement from Bios Level

Steps to use Docker: -

1. Download Docker Desktop and install
2. Install Docker extension in Visual Studio
3. Create Docker environment in docker desktop
4. Create Directory in VS using terminal, using mkdir directory-name command (**mkdir xyz**) and move to directory using cd directory-name(**cd xyz**)
5. Create any type of file inside xyz directory (Example a.js)
6. Run file on terminal using node command (**node a.js**) just to check there are no problems with file
7. Create file inside xyz directory named as **Dockerfile** (D is always capital)
8. In Dockerfile, write Instructions and arguments for that instructions

   FROM node:alpine (node is base image for nodejs and alpine is linux distribution)

   COPY . /cd

   CMD node /cd/a.js
9. Write command on terminal, **docker build –t xyz .**

   This command will create image for your folder. you can check image using **docker image ls** or you can check in **image** part of docker desktop

10. Run docker using **docker run xyz** command.