Downloading and Installing docker for Windows

Instructions below are summarized from this link. If you want to know more or are stuck, go back here to dig in. For docker to work, you will need 64-bit processor and at least 4GB system RAM.

1. Open a power shell or windows command prompt in "ADMINISTRATOR" mode.
2. Type "wsl -- install" (wsl stands for Windows Subsystem for Linux; This command will enable download the latest Linux kernel, set WSL 2 as your default, and install a Linux distribution for you)
3. Visit https://hub.docker.com/editions/community/docker-ce-desktop-windows/ and click on "Get Docker Desktop".
4. Wherever you downloaded, double-click Docker Desktop Installer.exe to run the installer.
5. When prompted, ensure the Enable Hyper-V Windows Features or the Install required Windows components for WSL 2 option is selected on the Configuration page.
6. Follow the instructions on the installation wizard to authorize the installer and proceed with the install.
7. When the installation is successful, click Close to complete the installation process.
8. You might need to restart/logout after the installation is completed

Using Docker

1. Search for Docker app, and select **Docker Desktop** in the search results. Open it.
2. The Docker menu (🐳) displays the Docker Subscription Service Agreement window. Click the checkbox to indicate that you accept the updated terms and then click **Accept** to continue.
3. Docker Desktop starts after you accept the terms. You should see the icon on the bottom notification bar.
4. Now open a windows command prompt. You can start using the docker commands in there. You can type `docker run hello-world;` to test the overall setup.
5. For the lab, do the following
   a. **Create a relevant lab docker container (One time thing)**
      i. `docker pull devanshdvj/cs252:base;`
      ii. `docker run --hostname [name_host] --name [name_container] -it devanshdvj/cs252:base;`
      (Use your choice of names for name_host and name_container)
      You have created a container with a placeholder name `[name_container]`;
      You can now continue or exit the terminal.
   b. **Accessing the container (can do many times)**
      i. Open a window's terminal again and do.
      ii. `docker start [name_container];`

iii. `docker exec -it [name_container] /bin/bash;`
Your docker container is ready for use. "start" starts the container , while "exec" executes the bash process within the container. Bash is needed for you to interact with the terminal

iv. Note any docker commands have to be run in the windows command terminal (open another terminal as needed), not inside the docker container :-)

v. After you are done playing, you can stop the docker by opening a terminal and typing
1. `docker stop [name_container];`