Hands-On Activity: Installing Docker for Windows

The objective of this activity is to guide students through the installation and configuration of Docker Desktop on Windows. By the end of this activity, students should be able to:

- Successfully install Docker Desktop on a Windows machine.
- Configure Docker to run both Linux and Windows containers.
- Run a test container to verify Docker's functionality.
- Understand the benefits of Docker Desktop's integration with WSL 2.

Prerequisites

- Windows 10 64-bit (Pro, Enterprise, or Education) or Windows 11.
- Ensure that the Windows Subsystem for Linux (WSL) is enabled. If you plan to use WSL 2, WSL 2 must also be enabled.

Step-by-Step Instructions

Enable Windows Subsystem for Linux (WSL) and WSL 2

1. **Open PowerShell as Administrator**

   o Right-click on the Start menu, select **Windows PowerShell (Admin)**.

2. **Enable WSL**

   o Run the following command to enable WSL:

Command:

```
wsl --install
```

- This will install WSL, set WSL 2 as the default version, and download a Linux distribution for you. If WSL is already installed, it will skip this step.

3. **Set WSL 2 as the Default Version** (if necessary)

- To confirm or set WSL 2 as the default, run:

Command:

wsl --set-default-version 2

4. **Install a Linux Distribution** (if not automatically installed)

- You can download a preferred Linux distribution (e.g., Ubuntu) from the Microsoft Store if it wasn't automatically installed during the WSL setup.

2. Download Docker Desktop

1. **Visit the Docker Desktop Website**

   - Go to [Docker Desktop for Windows](#) and download the installer.

2. **Run the Installer**

   - Open the downloaded Docker Desktop Installer.exe and follow the prompts.

3. **Choose WSL 2 or Hyper-V**

   - During installation, you will be prompted to select between using WSL 2 or Hyper-V. Select **WSL 2** for faster performance and better integration with Linux containers.

4. **Finish the Installation**

- Complete the installation by following the remaining prompts. Once installed, Docker Desktop will start automatically.