COMP 3095

Docker Installation

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Installing Docker Desktop on macOS: Step-by-Step Guide

Prerequisites

Before installing Docker Desktop on your Mac, make sure your system meets the following requirements:

- **Operating System:** macOS 10.15 (Catalina) or newer.
- **Hardware:** At least 4 GB of RAM.
- **Processor:** Apple Silicon or Intel-based Mac.

Step 1: Download Docker Desktop

1. Visit the Docker Website:

o Open your web browser and go to the <u>Docker Desktop for Mac</u> page.

2. Choose the Correct Version:

- o If you have an Apple Silicon Mac (M1, M2, etc.), download the version for Apple Silicon.
- o If you have an Intel-based Mac, download the version for Intel chip.

3. **Download the Installer:**

o Click the appropriate download link. The installer file (Docker.dmg) will begin downloading.

Step 2: Install Docker Desktop

1. Open the Installer:

- Once the download is complete, locate the Docker. dmg file in your Downloads folder.
- o Double-click the file to open the installer.

2. Install Docker Desktop:

- o In the installer window, drag the Docker icon to the **Applications** folder.
- o This will copy Docker Desktop to your Applications folder.

3. Launch Docker Desktop:

- o Open **Finder** and go to the **Applications** folder.
- o Find Docker and double-click the icon to launch Docker Desktop.

Step 3: Initial Setup

1. Start Docker Desktop:

- o When Docker Desktop starts for the first time, it will require some initial setup.
- You may be asked to enter your Mac's password to allow Docker to make system changes.

2. Sign In to Docker Hub:

o Docker Desktop will prompt you to sign in with a Docker Hub account.

o If you don't have an account, you can create a free one directly from the prompt or here.

3. Docker Desktop Setup:

o Follow any additional on-screen instructions to complete the setup.

Step 4: Verify the Installation

1. Open Terminal:

 You can find Terminal by searching for it using Spotlight (Cmd + Space and type "Terminal").

2. Check Docker Version:

o In the Terminal, type the following command and press Enter:



You should see the version number of Docker installed on your Mac.

3. Run a Test Container:

 To verify that Docker is working correctly, run the following command in Terminal:



This command will download a test image and run a simple container, displaying a confirmation message in the Terminal.

Step 5: Additional Configuration (if needed)

1. Configure Docker Settings:

- You can access Docker settings by clicking the Docker icon in the menu bar at the top of your screen and selecting **Preferences**.
- o Here, you can configure memory allocation, disk space, and other resources.

Troubleshooting Tips

- **Permissions Issues:** If you encounter any permission issues, make sure Docker Desktop has the necessary permissions under **System Preferences** > **Security & Privacy**.
- **Apple Silicon Compatibility:** If you're using an Apple Silicon Mac, ensure you've downloaded the correct version of Docker Desktop. Docker Desktop now supports Apple Silicon, but it's important to download the right version for your hardware.
- **Resource Limits:** Adjust resource limits like CPU and memory in Docker Preferences if you encounter performance issues.