

Install Docker on Ubuntu

To install Docker on Ubuntu, you can follow these steps:

Step 1: Update Package Index

First, update the package index to ensure you install the latest versions of Docker and its dependencies:

```
sudo apt update
```

Step 2: Install Dependencies

Install the packages necessary to allow apt to use a repository over HTTPS:

```
sudo apt install apt-transport-https ca-certificates curl software-properties-common
```

Step 3: Add Docker's Official GPG Key

Add Docker's official GPG key to your system:

```
curl -fsSL https://download.docker.com/linux/ubuntu/gpg | sudo apt-key add -
```

Step 4: Add Docker Repository

Add the Docker repository to your APT sources:

```
sudo add-apt-repository "deb [arch=amd64] https://download.docker.com/linux/ubuntu $(lsb_release -cs) stable"
```

Step 5: Install Docker Engine

Update the package index again, and install Docker:

```
sudo apt update  
sudo apt install docker-ce
```

Step 6: Verify Docker Installation

Check that Docker Engine is installed correctly by running the `hello-world` container:

```
sudo docker run hello-world
```

This command downloads a test image and runs it in a container. If Docker is set up correctly, you should see a message confirming that Docker is working.

Step 7: Manage Docker as a Non-Root User (Optional)

If you want to run Docker commands without using `sudo`, add your user to the `docker` group:

```
sudo usermod -aG docker ${USER}
```

Log out and back in, or run `newgrp docker`, to activate the changes.

Step 8: Start and Automate Docker

Start Docker and enable it to start on boot:

```
sudo systemctl start docker  
sudo systemctl enable docker
```

Step 9: Verify Docker Version (Optional)

To verify the installed Docker version, you can use:

```
docker --version
```

That's it! Docker should now be installed and ready to use on your Ubuntu system.