**Installation of Docker**

This Command is used to Update the packages which already installed in virtual machine.

*sudo yum install update*

### **To Uninstall old versions**

This command is used for uninstalling/removing the old versions of Docker along with their dependencies were called docker or docker-engine.

*sudo yum remove docker \*

*docker-client \*

*docker-client-latest \*

*docker-common \*

*docker-latest \*

*docker-latest-logrotate \*

*docker-logrotate \*

*docker-engine*

It’s OK if yum reports that none of these packages are installed.

#### **To Set up the repository**

Before you install Docker Engine for the first time on a new host machine, you need to set up the Docker repository. Afterward, you can install and update Docker from the repository.

Install the yum-utils package (which provides the yum-config-manager utility) and set up the repository.

*sudo yum install -y yum-utils*

*sudo yum-config-manager \*

*--add-repo \*

*https://download.docker.com/linux/centos/docker-ce.repo*

#### **Install Docker Engine**

Install the *latest version* of Docker Engine, containerd, and Docker Compose or go to the next step to install a specific version:

*sudo yum install docker-ce docker-ce-cli containerd.io docker-compose-plugin*

To install a *specific version* of Docker Engine, List and sort the versions available in your repo.

*yum list docker-ce --showduplicates | sort –r*

To Install a specific version by its fully qualified package name

*sudo yum install docker-ce-<VERSION\_STRING> docker-ce-cli-<VERSION\_STRING> containerd.io docker-compose-plugin*

**Start Docker**

This command is used to start Docker services

*sudo systemctl start docker*

Verify that Docker Engine is installed correctly by running the hello-world image.

*sudo docker run hello-world*

This command downloads a test image and runs it in a container. When the container runs, it prints a message and exits.

Install NPM

This Command is Used to Install NPM on Virtual Machine.

*sudo yum install npm*

Install Node

This Command is used to install the Node.js on Virtual Machine.

*sudo yum install node*

Create directory

This Command is Used to Create a Directory on Virtual machine and CD command is used to change the Directory.

*mkdir directory\_name*

*cd directory\_name*

This Vi command is used to open the editor make Dockerfile using this command.

*vi Dockerfile*

**Create Dockerfile**

This Commands are Executed in the Dockerfile while we build the image through this Dockerfile.

*FROM node:14*

*WORKDIR /usr/src/app*

*COPY package\*.json* *app.js ./*

*RUN npm install*

*EXPOSE 3000*

*CMD ["node", "app.js"]*

**Create a simple Node.js app in the app.js file, using Express:**

Create App.js Using Vi editor.

*vi App.js*

This is the code which is in App.js file.it is executed when we run Dockerfile.

*const express = require('express')*

*const app =* *express()*

*app.get('/', (req, res) => res.send('Hello World!'))*

*app.listen(3000, () =>* *console.log('Server ready'))*

**Install Dependencies**

We need to install all Dependencies which are required to run the Application. We need to install Express to run the application.

*npm install express*

*npm init –y*

**To create a docker image**

This command is used to build the docker image.

docker build -t getting-started

This Command is used to run the docker image.

*docker run -d -p 3000:3000 --name node-app getting-started*