

# Web Development Application Lab

## Assignment - 2B

Name: Krishna Gadam

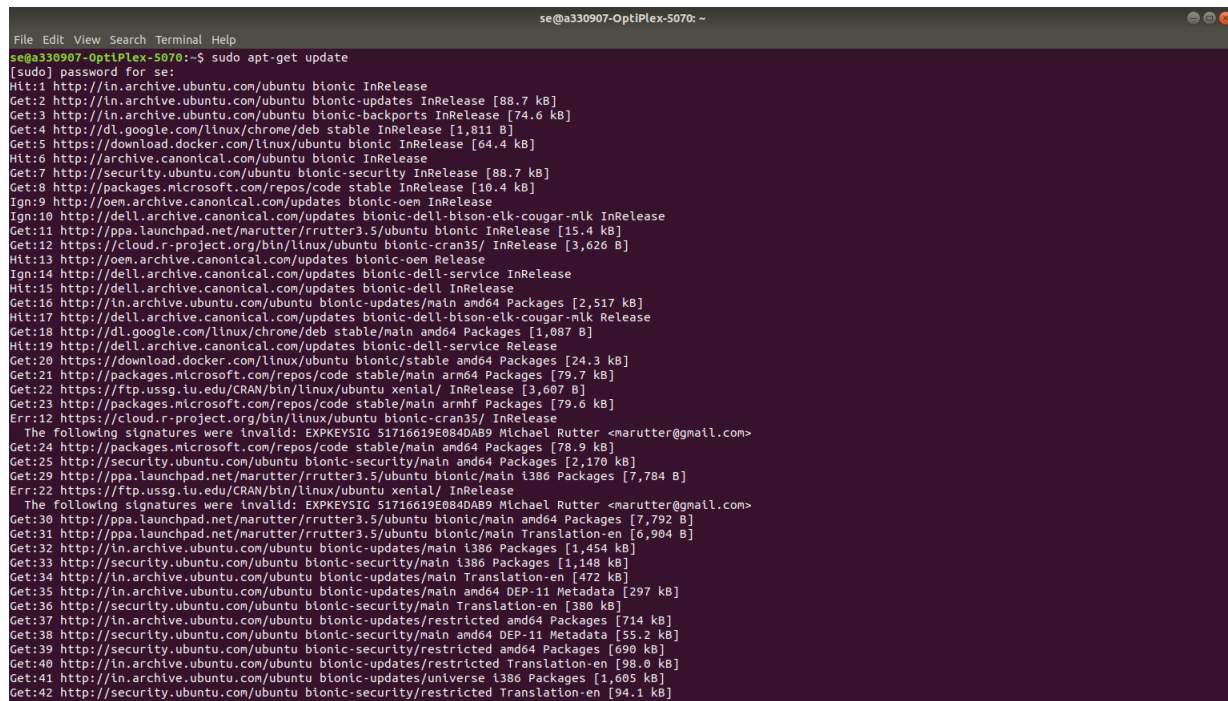
Roll No: 33124

Class: TE-9

### Problem Statement:

Create Docker Container Environment (NVIDIA Docker or any other).

### Screenshots:



```
se@a330907-OptiPlex-5070: ~  
File Edit View Search Terminal Help  
se@a330907-OptiPlex-5070:~$ sudo apt-get update  
[sudo] password for se:  
Hit:1 http://in.archive.ubuntu.com/ubuntu bionic InRelease  
Get:2 http://in.archive.ubuntu.com/ubuntu bionic-updates InRelease [88.7 kB]  
Get:3 http://in.archive.ubuntu.com/ubuntu bionic-backports InRelease [74.6 kB]  
Get:4 http://dl.google.com/linux/chrome/deb stable InRelease [1,811 B]  
Get:5 https://download.docker.com/linux/ubuntu bionic InRelease [64.4 kB]  
Hit:6 http://archive.canonical.com/ubuntu bionic InRelease  
Get:7 http://security.ubuntu.com/ubuntu bionic-security InRelease [88.7 kB]  
Get:8 http://packages.microsoft.com/repos/code stable InRelease [10.4 kB]  
Ign:9 http://oem.archive.canonical.com/updates bionic-oem InRelease  
Ign:10 http://dell.archive.canonical.com/updates bionic-dell-bison-elk-cougar-nlk InRelease  
Get:11 http://ppa.launchpad.net/marutter/rutter3.5/ubuntu bionic InRelease [15.4 kB]  
Get:12 https://cloud.r-project.org/bin/linux/ubuntu bionic-cran35/ InRelease [3,626 B]  
Hit:13 http://oem.archive.canonical.com/updates bionic-oem Release  
Ign:14 http://dell.archive.canonical.com/updates bionic-dell-service InRelease  
Hit:15 http://dell.archive.canonical.com/updates bionic-dell InRelease  
Get:16 http://in.archive.ubuntu.com/ubuntu bionic-updates/main amd64 Packages [2,517 kB]  
Hit:17 http://dell.archive.canonical.com/updates bionic-dell-bison-elk-cougar-nlk Release  
Hit:18 http://dl.google.com/linux/chrome/deb stable/main amd64 Packages [1,087 B]  
Hit:19 http://dell.archive.canonical.com/updates bionic-dell-service Release  
Get:20 https://download.docker.com/linux/ubuntu bionic/stable amd64 Packages [24.3 kB]  
Get:21 http://packages.microsoft.com/repos/code stable/main arm64 Packages [79.7 kB]  
Get:22 https://ftp.ussg.iu.edu/CRAN/bin/linux/ubuntu xenial/ InRelease [3,607 B]  
Get:23 http://packages.microsoft.com/repos/code stable/main armhf Packages [79.6 kB]  
Err:12 https://cloud.r-project.org/bin/linux/ubuntu bionic-cran35/ InRelease  
The following signatures were invalid: EXPKEYSIG 51716619E084DAB9 Michael Rutter <marutter@gmail.com>  
Get:24 http://packages.microsoft.com/repos/code stable/main amd64 Packages [78.9 kB]  
Get:25 http://security.ubuntu.com/ubuntu bionic-security/main amd64 Packages [2,170 kB]  
Get:29 http://ppa.launchpad.net/marutter/rutter3.5/ubuntu bionic/main i386 Packages [7,784 B]  
Err:22 https://ftp.ussg.iu.edu/CRAN/bin/linux/ubuntu xenial/ InRelease  
The following signatures were invalid: EXPKEYSIG 51716619E084DAB9 Michael Rutter <marutter@gmail.com>  
Get:30 http://ppa.launchpad.net/marutter/rutter3.5/ubuntu bionic/main amd64 Packages [7,792 B]  
Get:31 http://ppa.launchpad.net/marutter/rutter3.5/ubuntu bionic/main Translation-en [6,904 B]  
Get:32 http://in.archive.ubuntu.com/ubuntu bionic-updates/main i386 Packages [1,454 kB]  
Get:33 http://security.ubuntu.com/ubuntu bionic-security/main i386 Packages [1,148 kB]  
Get:34 http://in.archive.ubuntu.com/ubuntu bionic-updates/main Translation-en [472 kB]  
Get:35 http://in.archive.ubuntu.com/ubuntu bionic-updates/main amd64 DEP-11 Metadata [297 kB]  
Get:36 http://security.ubuntu.com/ubuntu bionic-security/main Translation-en [380 kB]  
Get:37 http://in.archive.ubuntu.com/ubuntu bionic-updates/restricted amd64 Packages [714 kB]  
Get:38 http://security.ubuntu.com/ubuntu bionic-security/main amd64 DEP-11 Metadata [55.2 kB]  
Get:39 http://security.ubuntu.com/ubuntu bionic-security/restricted amd64 Packages [690 kB]  
Get:40 http://in.archive.ubuntu.com/ubuntu bionic-updates/restricted Translation-en [98.0 kB]  
Get:41 http://in.archive.ubuntu.com/ubuntu bionic-updates/universe i386 Packages [1,605 kB]  
Get:42 http://security.ubuntu.com/ubuntu bionic-security/restricted Translation-en [94.1 kB]
```

```

se@a330907-OptiPlex-5070: ~
File Edit View Search Terminal Help
Reading package lists... Done
W: An error occurred during the signature verification. The repository is not updated and the previous index files will be used. GPG error: https://cloud.r-project.org/bin/linux/ubuntu bionic-cran35/ InRelease: The following signatures were invalid: EXPKEYSIG 51716619E084DAB9 Michael Rutter <marutter@gmail.com>
W: An error occurred during the signature verification. The repository is not updated and the previous index files will be used. GPG error: https://ftp.ussg.iu.edu/CRAN/bin/linux/ubuntu xenial/ InRelease: The following signatures were invalid: EXPKEYSIG 51716619E084DAB9 Michael Rutter <marutter@gmail.com>
W: Failed to fetch https://ftp.ussg.iu.edu/CRAN/bin/linux/ubuntu/xenial/InRelease The following signatures were invalid: EXPKEYSIG 51716619E084DAB9 Michael Rutter <marutter@gmail.com>
W: Failed to fetch https://cloud.r-project.org/bin/linux/ubuntu/bionic-cran35/InRelease The following signatures were invalid: EXPKEYSIG 51716619E084DAB9 Michael Rutter <marutter@gmail.com>
W: Some index files failed to download. They have been ignored, or old ones used instead.
se@a330907-OptiPlex-5070:~$ sudo apt-get install \
> ca-certificates \
> curl \
> gnupg \
> lsb-release
Reading package lists... Done
Building dependency tree
Reading state information... Done
lsb-release is already the newest version (9.20170808ubuntu1).
ca-certificates is already the newest version (20210119-18.04.2).
curl is already the newest version (7.58.0-2ubuntu3.16).
gnupg is already the newest version (2.2.4-1ubuntu1.4).
The following packages were automatically installed and are no longer required:
  ant ant-optional apt-clone archdetect-deb bridge-utils btrfs-tools cdbx cryptsetup-bin default-jdk default-jdk-headless dh-translations dmraid eclipse-platform-data
  eclipse-rcp fastjar gir1.2-timzone-nep-1.0 gir1.2-xml-1.0 intltool jarwrapper jq junit junit-doc junit4 kpartx kpartx-boot libactivation-java libapache-pom-java
  libasn1-java libasn3-java libavalon-framework-java libcglib-java libcommons-beanutils-java libcommons-cli-java libcommons-codec-java libcommons-collections3-java
  libcommons-compress-java libcommons-dbc-java libcommons-digester-java libcommons-httpclient-java libcommons-logging-java libcommons-net-java libcommons-parent-java
  libcommons-pool-java libdbd-java libdbd-je-java libdbd-s-java libdbd-s-java-jni libdbdmenu-gtk4 libdebian-installer4 libdmraid1.0-0.rc16 libeasymock-java libecj-java
  libel-api-java libequinox-osgi-java libfelix-bundle-repository-java libfelix-gogo-command-java libfelix-gogo-runtime-java libfelix-gogo-shell-java
  libfelix-osgi-obr-java libfelix-shell-java libfelix-utils-java libfile-which-perl libfwup libgeronimo-jta-1.1-spec-java libhamcrest-java libicu4j-4.2-java
  libicu4j-49-java libidn3-0-1-0 libjavascripcoregtk-1.0-0 libjaxp1.3-java libjettty9-java libjline-java libjq libjsch-java libjsp-api-java libjtidy-java
  libjzlib-java libkxml2-java liblvm7 liblvm9 liblvm9:i386 liblog4j1.2-java liblucene2-java libmail-java libnvidia-cfgi-435 libnvidia-cfgi-455 libnvidia-cfgi-460
  libnvidia-common-435 libnvidia-common-455 libnvidia-common-460 libnvidia-compute-435 libnvidia-compute-435:i386 libnvidia-compute-455 libnvidia-compute-455:i386
  libnvidia-compute-460 libnvidia-compute-460:i386 libnvidia-decode-435 libnvidia-decode-435:i386 libnvidia-decode-455 libnvidia-decode-455:i386 libnvidia-decode-460
  libnvidia-decode-460:i386 libnvidia-encode-435 libnvidia-encode-435:i386 libnvidia-encode-455 libnvidia-encode-455:i386 libnvidia-encode-460
  libnvidia-encode-460:i386 libnvidia-fbc1-435 libnvidia-fbc1-435:i386 libnvidia-fbc1-455 libnvidia-fbc1-455:i386 libnvidia-fbc1-460 libnvidia-fbc1-460:i386
  libnvidia-gl-435 libnvidia-gl-435:i386 libnvidia-gl-455 libnvidia-gl-455:i386 libnvidia-gl-460 libnvidia-gl-460:i386 libnvidia-ifr1-435 libnvidia-ifr1-435:i386
  libnvidia-ifr1-455 libnvidia-ifr1-455:i386 libnvidia-ifr1-460 libnvidia-ifr1-460:i386 libobjenesis-java libonig4 libosgi-annotation-java libosgi-compendium-java
  libosgi-core-java libregexp-java librhino-java libservlet-api-java libservlet3.1-java libswt-cairo-gtk-3-jni libswt-glx-gtk-3-jni libswt-gtk-3-java libswt-gtk-3-jni
  libswt-webkit-gtk-3-jni libtagsoup-java libtimezonenep-data libtimezonenep1 libtomcat8-java libwebkitgtk-1.0-0 libwebsocket-api-java libxalan2-java libxerces2-java
  libxml-commons-external-java libxml-commons-resolver1.1-java libxz-java linux-oem-headers-4.15.0-1037 linux-oem-headers-4.15.0-1067 linux-oem-headers-4.15.0-1069
  nvidia-compute-utlis-435 nvidia-compute-utlis-455 nvidia-compute-utlis-460 nvidia-dkms-435 nvidia-dkms-455 nvidia-dkms-460 nvidia-kernel-common-435
  nvidia-kernel-common-455 nvidia-kernel-common-460 nvidia-kernel-source-435 nvidia-kernel-source-455 nvidia-kernel-source-460 nvidia-utlis-435 nvidia-utlis-455
  nvidia-utlis-460 openjdk-11-jdk openjdk-11-jdk-headless pigz python3-lcu python3-pam python3-scour rdate sat4j scour shin ubuntu-fan xserver-xorg-video-nvidia-435
  xserver-xorg-video-nvidia-455 xserver-xorg-video-nvidia-460
lsb-release: not installed, not supported

```

```

se@a330907-OptiPlex-5070: ~
File Edit View Search Terminal Help
Use 'sudo apt autoremove' to remove them.
0 upgraded, 0 newly installed, 0 to remove and 25 not upgraded.
se@a330907-OptiPlex-5070:~$ sudo apt autoremove
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following packages will be REMOVED:
  ant ant-optional apt-clone archdetect-deb bridge-utils btrfs-tools cdbx cryptsetup-bin default-jdk default-jdk-headless dh-translations dmraid eclipse-platform-data
  eclipse-rcp fastjar gir1.2-timzone-nep-1.0 gir1.2-xml-1.0 intltool jarwrapper jq junit junit-doc junit4 kpartx kpartx-boot libactivation-java libapache-pom-java
  libasn1-java libasn3-java libavalon-framework-java libcglib-java libcommons-beanutils-java libcommons-cli-java libcommons-codec-java libcommons-collections3-java
  libcommons-compress-java libcommons-dbc-java libcommons-digester-java libcommons-httpclient-java libcommons-logging-java libcommons-net-java libcommons-parent-java
  libcommons-pool-java libdbd-java libdbd-je-java libdbd-s-java libdbd-s-java-jni libdbdmenu-gtk4 libdebian-installer4 libdmraid1.0-0.rc16 libeasymock-java libecj-java
  libel-api-java libequinox-osgi-java libfelix-bundle-repository-java libfelix-gogo-command-java libfelix-gogo-runtime-java libfelix-gogo-shell-java
  libfelix-osgi-obr-java libfelix-shell-java libfelix-utils-java libfile-which-perl libfwup libgeronimo-jta-1.1-spec-java libhamcrest-java libicu4j-4.2-java
  libicu4j-49-java libidn3-0-1-0 libjavascripcoregtk-1.0-0 libjaxp1.3-java libjettty9-java libjline-java libjq libjsch-java libjsp-api-java libjtidy-java
  libjzlib-java libkxml2-java liblvm7 liblvm9 liblvm9:i386 liblog4j1.2-java liblucene2-java libmail-java libnvidia-cfgi-435 libnvidia-cfgi-455 libnvidia-cfgi-460
  libnvidia-common-435 libnvidia-common-455 libnvidia-common-460 libnvidia-compute-435 libnvidia-compute-435:i386 libnvidia-compute-455 libnvidia-compute-455:i386
  libnvidia-compute-460 libnvidia-compute-460:i386 libnvidia-decode-435 libnvidia-decode-435:i386 libnvidia-decode-455 libnvidia-decode-455:i386 libnvidia-decode-460
  libnvidia-decode-460:i386 libnvidia-encode-435 libnvidia-encode-435:i386 libnvidia-encode-455 libnvidia-encode-455:i386 libnvidia-encode-460
  libnvidia-encode-460:i386 libnvidia-fbc1-435 libnvidia-fbc1-435:i386 libnvidia-fbc1-455 libnvidia-fbc1-455:i386 libnvidia-fbc1-460 libnvidia-fbc1-460:i386
  libnvidia-gl-435 libnvidia-gl-435:i386 libnvidia-gl-455 libnvidia-gl-455:i386 libnvidia-gl-460 libnvidia-gl-460:i386 libnvidia-ifr1-435 libnvidia-ifr1-435:i386
  libnvidia-ifr1-455 libnvidia-ifr1-455:i386 libnvidia-ifr1-460 libnvidia-ifr1-460:i386 libobjenesis-java libonig4 libosgi-annotation-java libosgi-compendium-java
  libosgi-core-java libregexp-java librhino-java libservlet-api-java libservlet3.1-java libswt-cairo-gtk-3-jni libswt-glx-gtk-3-jni libswt-gtk-3-java libswt-gtk-3-jni
  libswt-webkit-gtk-3-jni libtagsoup-java libtimezonenep-data libtimezonenep1 libtomcat8-java libwebkitgtk-1.0-0 libwebsocket-api-java libxalan2-java libxerces2-java
  libxml-commons-external-java libxml-commons-resolver1.1-java libxz-java linux-oem-headers-4.15.0-1037 linux-oem-headers-4.15.0-1067 linux-oem-headers-4.15.0-1069
  nvidia-compute-utlis-435 nvidia-compute-utlis-455 nvidia-compute-utlis-460 nvidia-dkms-435 nvidia-dkms-455 nvidia-dkms-460 nvidia-kernel-common-435
  nvidia-kernel-common-455 nvidia-kernel-common-460 nvidia-kernel-source-435 nvidia-kernel-source-455 nvidia-kernel-source-460 nvidia-utlis-435 nvidia-utlis-455
  nvidia-utlis-460 openjdk-11-jdk openjdk-11-jdk-headless pigz python3-lcu python3-pam python3-scour rdate sat4j scour shin ubuntu-fan xserver-xorg-video-nvidia-435
  xserver-xorg-video-nvidia-455 xserver-xorg-video-nvidia-460
0 upgraded, 0 newly installed, 183 to remove and 25 not upgraded.
After this operation, 835 MB disk space will be freed.
Do you want to continue? [Y/n] y
(Reading database ... 275403 files and directories currently installed.)
Removing ant-optional (1.10.5-3-18.04) ...
Removing ant (1.10.5-3-18.04) ...
Removing apt-clone (0.4.1ubuntu2) ...
Removing archdetect-deb (1.117ubuntu6.18.04.1) ...
Removing ubuntu-fan (0.12.10) ...
ubuntu-fan: removing default /etc/network/fan configuration
Removing bridge-utils (1.5-15ubuntu1) ...
Removing btrfs-tools (4.15.1-1build1) ...
Removing cdbx (0.4.15ubuntu4) ...
Removing cryptsetup-bin (2:2.0.2-1ubuntu1.2) ...
Removing default-jdk (2:1.11-68ubuntu1-18.04.1) ...
Removing default-jdk-headless (2:1.11-68ubuntu1-18.04.1) ...
Removing dh-translations (0.13.0-1ubuntu1) ...

```

```

se@a330907-OptiPlex-5070: ~
File Edit View Search Terminal Help
se@a330907-OptiPlex-5070:~$ curl -fsSL https://download.docker.com/linux/ubuntu/gpg | sudo gpg --dearmor -o /usr/share/keyrings/docker-archive-keyring.gpg
gpg: WARNING: unsafe ownership on homedir '/home/se/.gnupg'
File '/usr/share/keyrings/docker-archive-keyring.gpg' exists. Overwrite? (y/N) y
se@a330907-OptiPlex-5070:~$ echo \
> "deb [arch=$(dpkg --print-architecture) signed-by=/usr/share/keyrings/docker-archive-keyring.gpg] https://download.docker.com/linux/ubuntu \
> $(lsb_release -cs) stable" | sudo tee /etc/apt/sources.list.d/docker.list > /dev/null
se@a330907-OptiPlex-5070:~$ echo \
> "deb [arch=$(dpkg --print-architecture) signed-by=/usr/share/keyrings/docker-archive-keyring.gpg] https://download.docker.com/linux/ubuntu \
> $(lsb_release -cs) stable" | sudo tee /etc/apt/sources.list.d/docker.list > /dev/null
se@a330907-OptiPlex-5070:~$ sudo apt-get update
Hit:1 http://ln.archive.ubuntu.com/ubuntu bionic InRelease
Get:2 http://ln.archive.ubuntu.com/ubuntu bionic-updates InRelease [88.7 kB]
Get:3 https://cloud.r-project.org/bin/linux/ubuntu bionic-cran35/ InRelease [3,626 B]
Get:4 http://ln.archive.ubuntu.com/ubuntu bionic-backports InRelease [74.6 kB]
Get:5 http://security.ubuntu.com/ubuntu bionic-security InRelease [88.7 kB]
Err:3 https://cloud.r-project.org/bin/linux/ubuntu bionic-cran35/ InRelease
  The following signatures were invalid: EXPKEYSIG 51716619E084DAB9 Michael Rutter <marutter@gmail.com>
Ign:6 http://oem.archive.canonical.com/updates bionic-oem InRelease
Ign:7 http://dell.archive.canonical.com/updates bionic-dell-bison-elk-cougar-mlk InRelease
Hit:8 https://download.docker.com/linux/ubuntu bionic InRelease
Hit:9 http://ppa.launchpad.net/marutter/rutter3.5/ubuntu bionic InRelease
Hit:10 http://archive.canonical.com/ubuntu bionic InRelease
Hit:11 http://dl.google.com/linux/chrome/deb stable InRelease
Hit:12 http://oem.archive.canonical.com/updates bionic-oem Release
Ign:13 http://dell.archive.canonical.com/updates bionic-dell-service InRelease
Get:14 http://packages.microsoft.com/repos/code stable InRelease [10.4 kB]
Hit:15 http://dell.archive.canonical.com/updates bionic-dell InRelease
Hit:16 http://dell.archive.canonical.com/updates bionic-dell-bison-elk-cougar-mlk Release
Hit:18 http://dell.archive.canonical.com/updates bionic-dell-service Release
Get:17 https://ftp.ussg.iu.edu/CRAN/bin/linux/ubuntu xenial/ InRelease [3,607 B]
Err:17 https://ftp.ussg.iu.edu/CRAN/bin/linux/ubuntu xenial/ InRelease
  The following signatures were invalid: EXPKEYSIG 51716619E084DAB9 Michael Rutter <marutter@gmail.com>
Fetched 270 kB in 3s (94.5 kB/s)
Reading package lists... Done
W: An error occurred during the signature verification. The repository is not updated and the previous index files will be used. GPG error: https://cloud.r-project.org/bin/linux/ubuntu bionic-cran35/ InRelease: The following signatures were invalid: EXPKEYSIG 51716619E084DAB9 Michael Rutter <marutter@gmail.com>
W: An error occurred during the signature verification. The repository is not updated and the previous index files will be used. GPG error: https://ftp.ussg.iu.edu/CRAN/bin/linux/ubuntu xenial/ InRelease: The following signatures were invalid: EXPKEYSIG 51716619E084DAB9 Michael Rutter <marutter@gmail.com>
W: Failed to fetch https://ftp.ussg.iu.edu/CRAN/bin/linux/ubuntu/xenial/InRelease The following signatures were invalid: EXPKEYSIG 51716619E084DAB9 Michael Rutter <marutter@gmail.com>
W: Failed to fetch https://cloud.r-project.org/bin/linux/ubuntu/bionic-cran35/InRelease The following signatures were invalid: EXPKEYSIG 51716619E084DAB9 Michael Rutter <marutter@gmail.com>
W: Some index files failed to download. They have been ignored, or old ones used instead.
se@a330907-OptiPlex-5070:~$ sudo apt-get install docker-ce docker-ce-cli containerd.io
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  docker-ce-rootless-extras docker-scan-plugin pigz
Suggested packages:
  aufs-tools cgroupfs-mount | cgroup-lite
Recommended packages:
  slirp4netns
The following NEW packages will be installed:
  containerd.io docker-ce docker-ce-cli docker-ce-rootless-extras docker-scan-plugin pigz
0 upgraded, 6 newly installed, 0 to remove and 25 not upgraded.
Need to get 96.3 MB of archives.
After this operation, 405 MB of additional disk space will be used.
Do you want to continue? [Y/n] y
Get:1 http://ln.archive.ubuntu.com/ubuntu bionic/universe amd64 pigz amd64 2.4-1 [57.4 kB]
Get:2 https://download.docker.com/linux/ubuntu bionic/stable amd64 containerd.io amd64 1.5.11-1 [22.9 MB]
Get:3 https://download.docker.com/linux/ubuntu bionic/stable amd64 docker-ce-cli amd64 5:20.10.14-3-0-ubuntu-bionic [41.0 MB]
Get:4 https://download.docker.com/linux/ubuntu bionic/stable amd64 docker-ce amd64 5:20.10.14-3-0-ubuntu-bionic [20.9 MB]
Get:5 https://download.docker.com/linux/ubuntu bionic/stable amd64 docker-ce-rootless-extras amd64 5:20.10.14-3-0-ubuntu-bionic [7,926 kB]
Get:6 https://download.docker.com/linux/ubuntu bionic/stable amd64 docker-scan-plugin amd64 0.17.0-ubuntu-bionic [3,521 kB]
Fetched 96.3 MB in 1min 36s (1,007 kB/s)
Selecting previously unselected package pigz.
(Reading database ... 216443 files and directories currently installed.)
Preparing to unpack .../0-pigz_2.4-1_amd64.deb ...
Unpacking pigz (2.4-1) ...
Selecting previously unselected package containerd.io.
Preparing to unpack .../1-containerd.io_1.5.11-1_amd64.deb ...
Unpacking containerd.io (1.5.11-1) ...
Selecting previously unselected package docker-ce-cli.
Preparing to unpack .../2-docker-ce-cli_5%3a20.10.14-3-0-ubuntu-bionic_amd64.deb ...
Unpacking docker-ce-cli (5:20.10.14-3-0-ubuntu-bionic) ...
Selecting previously unselected package docker-ce.
Preparing to unpack .../3-docker-ce_5%3a20.10.14-3-0-ubuntu-bionic_amd64.deb ...
Unpacking docker-ce (5:20.10.14-3-0-ubuntu-bionic) ...
Selecting previously unselected package docker-ce-rootless-extras.
Preparing to unpack .../4-docker-ce-rootless-extras_5%3a20.10.14-3-0-ubuntu-bionic_amd64.deb ...
Unpacking docker-ce-rootless-extras (5:20.10.14-3-0-ubuntu-bionic) ...
Selecting previously unselected package docker-scan-plugin.
Preparing to unpack .../5-docker-scan-plugin_0.17.0-ubuntu-bionic_amd64.deb ...
Unpacking docker-scan-plugin (0.17.0-ubuntu-bionic) ...
Setting up containerd.io (1.5.11-1) ...
Setting up docker-ce-rootless-extras (5:20.10.14-3-0-ubuntu-bionic) ...
Setting up docker-scan-plugin (0.17.0-ubuntu-bionic) ...
Setting up docker-ce-cli (5:20.10.14-3-0-ubuntu-bionic) ...
Setting up pigz (2.4-1) ...
Setting up docker-ce (5:20.10.14-3-0-ubuntu-bionic) ...

```

```

se@a330907-OptiPlex-5070: ~
File Edit View Search Terminal Help
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  docker-ce-rootless-extras docker-scan-plugin pigz
Suggested packages:
  aufs-tools cgroupfs-mount | cgroup-lite
Recommended packages:
  slirp4netns
The following NEW packages will be installed:
  containerd.io docker-ce docker-ce-cli docker-ce-rootless-extras docker-scan-plugin pigz
0 upgraded, 6 newly installed, 0 to remove and 25 not upgraded.
Need to get 96.3 MB of archives.
After this operation, 405 MB of additional disk space will be used.
Do you want to continue? [Y/n] y
Get:1 http://ln.archive.ubuntu.com/ubuntu bionic/universe amd64 pigz amd64 2.4-1 [57.4 kB]
Get:2 https://download.docker.com/linux/ubuntu bionic/stable amd64 containerd.io amd64 1.5.11-1 [22.9 MB]
Get:3 https://download.docker.com/linux/ubuntu bionic/stable amd64 docker-ce-cli amd64 5:20.10.14-3-0-ubuntu-bionic [41.0 MB]
Get:4 https://download.docker.com/linux/ubuntu bionic/stable amd64 docker-ce amd64 5:20.10.14-3-0-ubuntu-bionic [20.9 MB]
Get:5 https://download.docker.com/linux/ubuntu bionic/stable amd64 docker-ce-rootless-extras amd64 5:20.10.14-3-0-ubuntu-bionic [7,926 kB]
Get:6 https://download.docker.com/linux/ubuntu bionic/stable amd64 docker-scan-plugin amd64 0.17.0-ubuntu-bionic [3,521 kB]
Fetched 96.3 MB in 1min 36s (1,007 kB/s)
Selecting previously unselected package pigz.
(Reading database ... 216443 files and directories currently installed.)
Preparing to unpack .../0-pigz_2.4-1_amd64.deb ...
Unpacking pigz (2.4-1) ...
Selecting previously unselected package containerd.io.
Preparing to unpack .../1-containerd.io_1.5.11-1_amd64.deb ...
Unpacking containerd.io (1.5.11-1) ...
Selecting previously unselected package docker-ce-cli.
Preparing to unpack .../2-docker-ce-cli_5%3a20.10.14-3-0-ubuntu-bionic_amd64.deb ...
Unpacking docker-ce-cli (5:20.10.14-3-0-ubuntu-bionic) ...
Selecting previously unselected package docker-ce.
Preparing to unpack .../3-docker-ce_5%3a20.10.14-3-0-ubuntu-bionic_amd64.deb ...
Unpacking docker-ce (5:20.10.14-3-0-ubuntu-bionic) ...
Selecting previously unselected package docker-ce-rootless-extras.
Preparing to unpack .../4-docker-ce-rootless-extras_5%3a20.10.14-3-0-ubuntu-bionic_amd64.deb ...
Unpacking docker-ce-rootless-extras (5:20.10.14-3-0-ubuntu-bionic) ...
Selecting previously unselected package docker-scan-plugin.
Preparing to unpack .../5-docker-scan-plugin_0.17.0-ubuntu-bionic_amd64.deb ...
Unpacking docker-scan-plugin (0.17.0-ubuntu-bionic) ...
Setting up containerd.io (1.5.11-1) ...
Setting up docker-ce-rootless-extras (5:20.10.14-3-0-ubuntu-bionic) ...
Setting up docker-scan-plugin (0.17.0-ubuntu-bionic) ...
Setting up docker-ce-cli (5:20.10.14-3-0-ubuntu-bionic) ...
Setting up pigz (2.4-1) ...
Setting up docker-ce (5:20.10.14-3-0-ubuntu-bionic) ...

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se@a330907-OptiPlex-5070: ~  
File Edit View Search Terminal Help  
se@a330907-OptiPlex-5070:~$ apt-cache madison docker-ce  
docker-ce | 5:20.10.14-3-0-ubuntu-bionic | https://download.docker.com/linux/ubuntu | bionic/stable | amd64 | Packages  
docker-ce | 5:20.10.13-3-0-ubuntu-bionic | https://download.docker.com/linux/ubuntu | bionic/stable | amd64 | Packages  
docker-ce | 5:20.10.12-3-0-ubuntu-bionic | https://download.docker.com/linux/ubuntu | bionic/stable | amd64 | Packages  
docker-ce | 5:20.10.11-3-0-ubuntu-bionic | https://download.docker.com/linux/ubuntu | bionic/stable | amd64 | Packages  
docker-ce | 5:20.10.10-3-0-ubuntu-bionic | https://download.docker.com/linux/ubuntu | bionic/stable | amd64 | Packages  
docker-ce | 5:20.10.9-3-0-ubuntu-bionic | https://download.docker.com/linux/ubuntu | bionic/stable | amd64 | Packages  
docker-ce | 5:20.10.8-3-0-ubuntu-bionic | https://download.docker.com/linux/ubuntu | bionic/stable | amd64 | Packages  
docker-ce | 5:20.10.7-3-0-ubuntu-bionic | https://download.docker.com/linux/ubuntu | bionic/stable | amd64 | Packages  
docker-ce | 5:20.10.6-3-0-ubuntu-bionic | https://download.docker.com/linux/ubuntu | bionic/stable | amd64 | Packages  
docker-ce | 5:20.10.5-3-0-ubuntu-bionic | https://download.docker.com/linux/ubuntu | bionic/stable | amd64 | Packages  
docker-ce | 5:20.10.4-3-0-ubuntu-bionic | https://download.docker.com/linux/ubuntu | bionic/stable | amd64 | Packages  
docker-ce | 5:20.10.3-3-0-ubuntu-bionic | https://download.docker.com/linux/ubuntu | bionic/stable | amd64 | Packages  
docker-ce | 5:20.10.2-3-0-ubuntu-bionic | https://download.docker.com/linux/ubuntu | bionic/stable | amd64 | Packages  
docker-ce | 5:20.10.1-3-0-ubuntu-bionic | https://download.docker.com/linux/ubuntu | bionic/stable | amd64 | Packages  
docker-ce | 5:20.10.0-3-0-ubuntu-bionic | https://download.docker.com/linux/ubuntu | bionic/stable | amd64 | Packages  
docker-ce | 5:19.03.15-3-0-ubuntu-bionic | https://download.docker.com/linux/ubuntu | bionic/stable | amd64 | Packages  
docker-ce | 5:19.03.14-3-0-ubuntu-bionic | https://download.docker.com/linux/ubuntu | bionic/stable | amd64 | Packages  
docker-ce | 5:19.03.13-3-0-ubuntu-bionic | https://download.docker.com/linux/ubuntu | bionic/stable | amd64 | Packages  
docker-ce | 5:19.03.12-3-0-ubuntu-bionic | https://download.docker.com/linux/ubuntu | bionic/stable | amd64 | Packages  
docker-ce | 5:19.03.11-3-0-ubuntu-bionic | https://download.docker.com/linux/ubuntu | bionic/stable | amd64 | Packages  
docker-ce | 5:19.03.10-3-0-ubuntu-bionic | https://download.docker.com/linux/ubuntu | bionic/stable | amd64 | Packages  
docker-ce | 5:19.03.9-3-0-ubuntu-bionic | https://download.docker.com/linux/ubuntu | bionic/stable | amd64 | Packages  
docker-ce | 5:19.03.8-3-0-ubuntu-bionic | https://download.docker.com/linux/ubuntu | bionic/stable | amd64 | Packages  
docker-ce | 5:19.03.7-3-0-ubuntu-bionic | https://download.docker.com/linux/ubuntu | bionic/stable | amd64 | Packages  
docker-ce | 5:19.03.6-3-0-ubuntu-bionic | https://download.docker.com/linux/ubuntu | bionic/stable | amd64 | Packages  
docker-ce | 5:19.03.5-3-0-ubuntu-bionic | https://download.docker.com/linux/ubuntu | bionic/stable | amd64 | Packages  
docker-ce | 5:19.03.4-3-0-ubuntu-bionic | https://download.docker.com/linux/ubuntu | bionic/stable | amd64 | Packages  
docker-ce | 5:19.03.3-3-0-ubuntu-bionic | https://download.docker.com/linux/ubuntu | bionic/stable | amd64 | Packages  
docker-ce | 5:19.03.2-3-0-ubuntu-bionic | https://download.docker.com/linux/ubuntu | bionic/stable | amd64 | Packages  
docker-ce | 5:19.03.1-3-0-ubuntu-bionic | https://download.docker.com/linux/ubuntu | bionic/stable | amd64 | Packages  
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docker-ce | 5:18.09.7-3-0-ubuntu-bionic | https://download.docker.com/linux/ubuntu | bionic/stable | amd64 | Packages  
docker-ce | 5:18.09.6-3-0-ubuntu-bionic | https://download.docker.com/linux/ubuntu | bionic/stable | amd64 | Packages  
docker-ce | 5:18.09.5-3-0-ubuntu-bionic | https://download.docker.com/linux/ubuntu | bionic/stable | amd64 | Packages  
docker-ce | 5:18.09.4-3-0-ubuntu-bionic | https://download.docker.com/linux/ubuntu | bionic/stable | amd64 | Packages  
docker-ce | 5:18.09.3-3-0-ubuntu-bionic | https://download.docker.com/linux/ubuntu | bionic/stable | amd64 | Packages  
docker-ce | 5:18.09.2-3-0-ubuntu-bionic | https://download.docker.com/linux/ubuntu | bionic/stable | amd64 | Packages  
docker-ce | 5:18.09.1-3-0-ubuntu-bionic | https://download.docker.com/linux/ubuntu | bionic/stable | amd64 | Packages  
docker-ce | 5:18.09.0-3-0-ubuntu-bionic | https://download.docker.com/linux/ubuntu | bionic/stable | amd64 | Packages  
docker-ce | 18.06.3-ce-3-0-ubuntu | https://download.docker.com/linux/ubuntu | bionic/stable | amd64 | Packages  
docker-ce | 18.06.2-ce-3-0-ubuntu | https://download.docker.com/linux/ubuntu | bionic/stable | amd64 | Packages  
docker-ce | 18.06.1-ce-3-0-ubuntu | https://download.docker.com/linux/ubuntu | bionic/stable | amd64 | Packages  
docker-ce | 18.06.0-ce-3-0-ubuntu | https://download.docker.com/linux/ubuntu | bionic/stable | amd64 | Packages  
docker-ce | 18.03.1-ce-3-0-ubuntu | https://download.docker.com/linux/ubuntu | bionic/stable | amd64 | Packages
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se@a330907-OptiPlex-5070: ~  
File Edit View Search Terminal Help  
docker-ce | 5:18.09.8-3-0-ubuntu-bionic | https://download.docker.com/linux/ubuntu | bionic/stable | amd64 | Packages  
docker-ce | 5:18.09.7-3-0-ubuntu-bionic | https://download.docker.com/linux/ubuntu | bionic/stable | amd64 | Packages  
docker-ce | 5:18.09.6-3-0-ubuntu-bionic | https://download.docker.com/linux/ubuntu | bionic/stable | amd64 | Packages  
docker-ce | 5:18.09.5-3-0-ubuntu-bionic | https://download.docker.com/linux/ubuntu | bionic/stable | amd64 | Packages  
docker-ce | 5:18.09.4-3-0-ubuntu-bionic | https://download.docker.com/linux/ubuntu | bionic/stable | amd64 | Packages  
docker-ce | 5:18.09.3-3-0-ubuntu-bionic | https://download.docker.com/linux/ubuntu | bionic/stable | amd64 | Packages  
docker-ce | 5:18.09.2-3-0-ubuntu-bionic | https://download.docker.com/linux/ubuntu | bionic/stable | amd64 | Packages  
docker-ce | 5:18.09.1-3-0-ubuntu-bionic | https://download.docker.com/linux/ubuntu | bionic/stable | amd64 | Packages  
docker-ce | 5:18.09.0-3-0-ubuntu-bionic | https://download.docker.com/linux/ubuntu | bionic/stable | amd64 | Packages  
docker-ce | 18.06.3-ce-3-0-ubuntu | https://download.docker.com/linux/ubuntu | bionic/stable | amd64 | Packages  
docker-ce | 18.06.2-ce-3-0-ubuntu | https://download.docker.com/linux/ubuntu | bionic/stable | amd64 | Packages  
docker-ce | 18.06.1-ce-3-0-ubuntu | https://download.docker.com/linux/ubuntu | bionic/stable | amd64 | Packages  
docker-ce | 18.06.0-ce-3-0-ubuntu | https://download.docker.com/linux/ubuntu | bionic/stable | amd64 | Packages  
docker-ce | 18.03.1-ce-3-0-ubuntu | https://download.docker.com/linux/ubuntu | bionic/stable | amd64 | Packages  
se@a330907-OptiPlex-5070:~$ sudo apt-get install docker-ce<VERSION_STRING> docker-ce-cli<VERSION_STRING> containerd.io  
bash: VERSION_STRING: No such file or directory  
se@a330907-OptiPlex-5070:~$ sudo docker run hello-world  
Unable to find image 'hello-world:latest' locally  
latest: Pulling from library/hello-world  
2db29710123e: Pull complete  
Digest: sha256:bfea6278a0a267fad2634554f4f0c6f31981ee41c553fdf5a83e95a41d40c38  
Status: Downloaded newer image for hello-world:latest  
  
Hello from Docker!  
This message shows that your installation appears to be working correctly.  
  
To generate this message, Docker took the following steps:  
1. The Docker client contacted the Docker daemon.  
2. The Docker daemon pulled the "hello-world" image from the Docker Hub.  
(amd64)  
3. The Docker daemon created a new container from that image which runs the  
executable that produces the output you are currently reading.  
4. The Docker daemon streamed that output to the Docker client, which sent it  
to your terminal.  
  
To try something more ambitious, you can run an Ubuntu container with:  
$ docker run -it ubuntu bash  
  
Share images, automate workflows, and more with a free Docker ID:  
https://hub.docker.com/  
  
For more examples and ideas, visit:  
https://docs.docker.com/get-started/  
se@a330907-OptiPlex-5070:~$
```