Audio Video check done

Quick review of previous class:-

We also pushed the code of the application on the inhouse gitlab server

We compiled, tested, created an artifact of an address book java application using jenkins

Assignment :-

No one has done it

We will look at sameers assignment tomorrow

Todays Agenda:

Quick sanity check of the previous Servers

Connect the builds using upstream and downstream

Create a pipeline view after that

Break from jenkins

Docker

Talk about

What is containerisation

100 servers in a data center

1000 containers

Gmail

YOutube

Orkut

Google plus

100 servers

2500GB RAM

100PB storge

100GGHz CPU

All that in a single pool

90-95 % of the resource

Saving money

Saving time configuring vm’s

Dont have to worry about portability

Set up a basic docker vm

Rename it

Install docker

Talk about docker hub

root@docker-server:~#

root@docker-server:~#

root@docker-server:~# apt-get install apt-transport-https ca-certificates curl software-properties-common -y

Reading package lists... Done

Building dependency tree

Reading state information... Done

ca-certificates is already the newest version (20160104ubuntu1).

apt-transport-https is already the newest version (1.2.20).

curl is already the newest version (7.47.0-1ubuntu2.2).

software-properties-common is already the newest version (0.96.20.6).

0 upgraded, 0 newly installed, 0 to remove and 0 not upgraded.

root@docker-server:~# curl

root@docker-server:~# curl -fsSL https://download.docker.com/linux/ubuntu/gpg | sudo apt-key add -

sudo: unable to resolve host docker-server

OK

root@docker-server:~#

root@docker-server:~#

root@docker-server:~#

root@docker-server:~# add-apt-repository "deb [arch=amd64] https://download.docker.com/linux/ubuntu $(lsb\_release -cs) stable"

root@docker-server:~# cd /etc/apt/sources.list.d/

root@docker-server:/etc/apt/sources.list.d# cat ^C

root@docker-server:/etc/apt/sources.list.d# cd ../

root@docker-server:/etc/apt# cat sources.list

#

# deb cdrom:[Ubuntu-Server 16.04 LTS \_Xenial Xerus\_ - Release amd64 (20160420.3)]/ xenial main restricted

# deb cdrom:[Ubuntu-Server 16.04 LTS \_Xenial Xerus\_ - Release amd64 (20160420.3)]/ xenial main restricted

# See http://help.ubuntu.com/community/UpgradeNotes for how to upgrade to

# newer versions of the distribution.

deb http://in.archive.ubuntu.com/ubuntu/ xenial main restricted

# deb-src http://in.archive.ubuntu.com/ubuntu/ xenial main restricted

## Major bug fix updates produced after the final release of the

## distribution.

deb http://in.archive.ubuntu.com/ubuntu/ xenial-updates main restricted

# deb-src http://in.archive.ubuntu.com/ubuntu/ xenial-updates main restricted

## N.B. software from this repository is ENTIRELY UNSUPPORTED by the Ubuntu

## team, and may not be under a free licence. Please satisfy yourself as to

## your rights to use the software. Also, please note that software in

## universe WILL NOT receive any review or updates from the Ubuntu security

## team.

deb http://in.archive.ubuntu.com/ubuntu/ xenial universe

# deb-src http://in.archive.ubuntu.com/ubuntu/ xenial universe

deb http://in.archive.ubuntu.com/ubuntu/ xenial-updates universe

# deb-src http://in.archive.ubuntu.com/ubuntu/ xenial-updates universe

## N.B. software from this repository is ENTIRELY UNSUPPORTED by the Ubuntu

## team, and may not be under a free licence. Please satisfy yourself as to

## your rights to use the software. Also, please note that software in

## multiverse WILL NOT receive any review or updates from the Ubuntu

## security team.

deb http://in.archive.ubuntu.com/ubuntu/ xenial multiverse

# deb-src http://in.archive.ubuntu.com/ubuntu/ xenial multiverse

deb http://in.archive.ubuntu.com/ubuntu/ xenial-updates multiverse

# deb-src http://in.archive.ubuntu.com/ubuntu/ xenial-updates multiverse

## N.B. software from this repository may not have been tested as

## extensively as that contained in the main release, although it includes

## newer versions of some applications which may provide useful features.

## Also, please note that software in backports WILL NOT receive any review

## or updates from the Ubuntu security team.

deb http://in.archive.ubuntu.com/ubuntu/ xenial-backports main restricted universe multiverse

# deb-src http://in.archive.ubuntu.com/ubuntu/ xenial-backports main restricted universe multiverse

## Uncomment the following two lines to add software from Canonical's

## 'partner' repository.

## This software is not part of Ubuntu, but is offered by Canonical and the

## respective vendors as a service to Ubuntu users.

# deb http://archive.canonical.com/ubuntu xenial partner

# deb-src http://archive.canonical.com/ubuntu xenial partner

deb http://security.ubuntu.com/ubuntu xenial-security main restricted

# deb-src http://security.ubuntu.com/ubuntu xenial-security main restricted

deb http://security.ubuntu.com/ubuntu xenial-security universe

# deb-src http://security.ubuntu.com/ubuntu xenial-security universe

deb http://security.ubuntu.com/ubuntu xenial-security multiverse

deb [arch=amd64] https://download.docker.com/linux/ubuntu xenial stable

# deb-src [arch=amd64] https://download.docker.com/linux/ubuntu xenial stable

# deb-src http://security.ubuntu.com/ubuntu xenial-security multiverse

root@docker-server:/etc/apt# lsb\_release -a

No LSB modules are available.

Distributor ID: Ubuntu

Description: Ubuntu 16.04.2 LTS

Release: 16.04

Codename: xenial

root@docker-server:/etc/apt#

root@docker-server:/etc/apt#

root@docker-server:/etc/apt#

root@docker-server:/etc/apt# apt-get update -y

Get:1 http://security.ubuntu.com/ubuntu xenial-security InRelease [102 kB]

Hit:2 http://in.archive.ubuntu.com/ubuntu xenial InRelease

Get:3 https://download.docker.com/linux/ubuntu xenial InRelease [20.1 kB]

Get:4 http://in.archive.ubuntu.com/ubuntu xenial-updates InRelease [102 kB]

Get:5 https://download.docker.com/linux/ubuntu xenial/stable amd64 Packages [1,479 B]

Get:6 http://security.ubuntu.com/ubuntu xenial-security/main amd64 Packages [267 kB]

Get:7 http://in.archive.ubuntu.com/ubuntu xenial-backports InRelease [102 kB]

Get:8 http://security.ubuntu.com/ubuntu xenial-security/main i386 Packages [254 kB]

Get:9 http://in.archive.ubuntu.com/ubuntu xenial-updates/main amd64 Packages [540 kB]

Get:10 http://security.ubuntu.com/ubuntu xenial-security/main Translation-en [112 kB]

Get:11 http://security.ubuntu.com/ubuntu xenial-security/universe amd64 Packages [115 kB]

Get:12 http://security.ubuntu.com/ubuntu xenial-security/universe i386 Packages [101 kB]

Get:13 http://security.ubuntu.com/ubuntu xenial-security/universe Translation-en [59.1 kB]

Get:14 http://in.archive.ubuntu.com/ubuntu xenial-updates/main i386 Packages [525 kB]

Get:15 http://in.archive.ubuntu.com/ubuntu xenial-updates/main Translation-en [218 kB]

Get:16 http://in.archive.ubuntu.com/ubuntu xenial-updates/universe amd64 Packages [468 kB]

Get:17 http://in.archive.ubuntu.com/ubuntu xenial-updates/universe i386 Packages [453 kB]

Get:18 http://in.archive.ubuntu.com/ubuntu xenial-updates/universe Translation-en [183 kB]

Get:19 http://in.archive.ubuntu.com/ubuntu xenial-updates/multiverse i386 Packages [7,996 B]

Get:20 http://in.archive.ubuntu.com/ubuntu xenial-updates/multiverse Translation-en [4,460 B]

Get:21 http://in.archive.ubuntu.com/ubuntu xenial-backports/universe amd64 Packages [4,512 B]

Get:22 http://in.archive.ubuntu.com/ubuntu xenial-backports/universe i386 Packages [4,516 B]

Get:23 http://in.archive.ubuntu.com/ubuntu xenial-backports/universe Translation-en [1,968 B]

Fetched 3,647 kB in 6s (595 kB/s)

Reading package lists... Done

root@docker-server:/etc/apt# apt-get install docker-ce

Reading package lists... Done

Building dependency tree

Reading state information... Done

The following additional packages will be installed:

aufs-tools cgroupfs-mount libltdl7

Suggested packages:

mountall

The following NEW packages will be installed:

aufs-tools cgroupfs-mount docker-ce libltdl7

0 upgraded, 4 newly installed, 0 to remove and 15 not upgraded.

Need to get 19.4 MB of archives.

After this operation, 89.4 MB of additional disk space will be used.

Do you want to continue? [Y/n] Y

Get:1 https://download.docker.com/linux/ubuntu xenial/stable amd64 docker-ce amd64 17.03.1~ce-0~ubuntu-xenial [19.3 MB]

Get:2 http://in.archive.ubuntu.com/ubuntu xenial/universe amd64 aufs-tools amd64 1:3.2+20130722-1.1ubuntu1 [92.9 kB]

Get:3 http://in.archive.ubuntu.com/ubuntu xenial/universe amd64 cgroupfs-mount all 1.2 [4,970 B]

Get:4 http://in.archive.ubuntu.com/ubuntu xenial/main amd64 libltdl7 amd64 2.4.6-0.1 [38.3 kB]

Fetched 19.4 MB in 2s (7,428 kB/s)

Selecting previously unselected package aufs-tools.

(Reading database ... 92148 files and directories currently installed.)

Preparing to unpack .../aufs-tools\_1%3a3.2+20130722-1.1ubuntu1\_amd64.deb ...

Unpacking aufs-tools (1:3.2+20130722-1.1ubuntu1) ...

Selecting previously unselected package cgroupfs-mount.

Preparing to unpack .../cgroupfs-mount\_1.2\_all.deb ...

Unpacking cgroupfs-mount (1.2) ...

Selecting previously unselected package libltdl7:amd64.

Preparing to unpack .../libltdl7\_2.4.6-0.1\_amd64.deb ...

Unpacking libltdl7:amd64 (2.4.6-0.1) ...

Selecting previously unselected package docker-ce.

Preparing to unpack .../docker-ce\_17.03.1~ce-0~ubuntu-xenial\_amd64.deb ...

Unpacking docker-ce (17.03.1~ce-0~ubuntu-xenial) ...

Processing triggers for libc-bin (2.23-0ubuntu7) ...

Processing triggers for man-db (2.7.5-1) ...

Processing triggers for ureadahead (0.100.0-19) ...

Processing triggers for systemd (229-4ubuntu17) ...

Setting up aufs-tools (1:3.2+20130722-1.1ubuntu1) ...

Setting up cgroupfs-mount (1.2) ...

Setting up libltdl7:amd64 (2.4.6-0.1) ...

Setting up docker-ce (17.03.1~ce-0~ubuntu-xenial) ...

Processing triggers for libc-bin (2.23-0ubuntu7) ...

Processing triggers for systemd (229-4ubuntu17) ...

Processing triggers for ureadahead (0.100.0-19) ...

root@docker-server:/etc/apt#

root@docker-server:~# docker images

REPOSITORY TAG IMAGE ID CREATED SIZE

hello-world latest 48b5124b2768 4 months ago 1.84 kB

root@docker-server:~# docker pull centos

Using default tag: latest

latest: Pulling from library/centos

343b09361036: Pull complete

Digest: sha256:bba1de7c9d900a898e3cadbae040dfe8a633c06bc104a0df76ae24483e03c077

Status: Downloaded newer image for centos:latest

root@docker-server:~# docker pull ubuntu

Using default tag: latest

latest: Pulling from library/ubuntu

b6f892c0043b: Pull complete

55010f332b04: Pull complete

2955fb827c94: Pull complete

3deef3fcbd30: Pull complete

cf9722e506aa: Pull complete

Digest: sha256:382452f82a8bbd34443b2c727650af46aced0f94a44463c62a9848133ecb1aa8

Status: Downloaded newer image for ubuntu:latest

root@docker-server:~# docker pull fedora

Using default tag: latest

latest: Pulling from library/fedora

691bc14ee274: Pull complete

Digest: sha256:69281ddd7b2600e5f2b17f1e12d7fba25207f459204fb2d15884f8432c479136

Status: Downloaded newer image for fedora:latest

root@docker-server:~# dovker pull debian

No command 'dovker' found, did you mean:

Command 'docker' from package 'docker.io' (universe)

dovker: command not found

root@docker-server:~# docker pull debian

Using default tag: latest

latest: Pulling from library/debian

10a267c67f42: Pull complete

Digest: sha256:476959f29a17423a24a17716e058352ff6fbf13d8389e4a561c8ccc758245937

Status: Downloaded newer image for debian:latest

root@docker-server:~# docker imgaes

docker: 'imgaes' is not a docker command.

See 'docker --help'

root@docker-server:~# docker images

REPOSITORY TAG IMAGE ID CREATED SIZE

ubuntu latest ebcd9d4fca80 5 days ago 118 MB

centos latest 8140d0c64310 8 days ago 193 MB

debian latest 3e83c23dba6a 11 days ago 124 MB

fedora latest 15895ef0b3b2 4 weeks ago 231 MB

hello-world latest 48b5124b2768 4 months ago 1.84 kB

root@docker-server:~# docker ps -a

CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES

77ca9aec4498 hello-world "/hello" 2 minutes ago Exited (0) 2 minutes ago relaxed\_kowalevski

13fd23565f0d hello-world "/hello" 12 minutes ago Exited (0) 12 minutes ago quizzical\_leavitt

root@docker-server:~# ps -fax

PID TTY STAT TIME COMMAND

2 ? S 0:00 [kthreadd]

3 ? S 0:00 \\_ [ksoftirqd/0]

5 ? S< 0:00 \\_ [kworker/0:0H]

7 ? S 0:00 \\_ [rcu\_sched]

8 ? S 0:00 \\_ [rcu\_bh]

9 ? S 0:00 \\_ [migration/0]

10 ? S 0:00 \\_ [watchdog/0]

11 ? S 0:00 \\_ [watchdog/1]

12 ? S 0:00 \\_ [migration/1]

13 ? S 0:00 \\_ [ksoftirqd/1]

15 ? S< 0:00 \\_ [kworker/1:0H]

16 ? S 0:00 \\_ [watchdog/2]

17 ? S 0:00 \\_ [migration/2]

18 ? S 0:00 \\_ [ksoftirqd/2]

20 ? S< 0:00 \\_ [kworker/2:0H]

21 ? S 0:00 \\_ [watchdog/3]

22 ? S 0:00 \\_ [migration/3]

23 ? S 0:00 \\_ [ksoftirqd/3]

25 ? S< 0:00 \\_ [kworker/3:0H]

26 ? S 0:00 \\_ [kdevtmpfs]

27 ? S< 0:00 \\_ [netns]

28 ? S< 0:00 \\_ [perf]

29 ? S 0:00 \\_ [khungtaskd]

30 ? S< 0:00 \\_ [writeback]

31 ? SN 0:00 \\_ [ksmd]

32 ? SN 0:00 \\_ [khugepaged]

33 ? S< 0:00 \\_ [crypto]

34 ? S< 0:00 \\_ [kintegrityd]

35 ? S< 0:00 \\_ [bioset]

36 ? S< 0:00 \\_ [kblockd]

37 ? S< 0:00 \\_ [ata\_sff]

38 ? S< 0:00 \\_ [md]

39 ? S< 0:00 \\_ [devfreq\_wq]

42 ? S 0:00 \\_ [kworker/2:1]

43 ? S 0:00 \\_ [kworker/3:1]

45 ? S 0:00 \\_ [kswapd0]

46 ? S< 0:00 \\_ [vmstat]

47 ? S 0:00 \\_ [fsnotify\_mark]

48 ? S 0:00 \\_ [ecryptfs-kthrea]

64 ? S< 0:00 \\_ [kthrotld]

65 ? S< 0:00 \\_ [acpi\_thermal\_pm]

66 ? S< 0:00 \\_ [bioset]

67 ? S< 0:00 \\_ [bioset]

68 ? S< 0:00 \\_ [bioset]

69 ? S< 0:00 \\_ [bioset]

70 ? S< 0:00 \\_ [bioset]

71 ? S< 0:00 \\_ [bioset]

72 ? S< 0:00 \\_ [bioset]

73 ? S< 0:00 \\_ [bioset]

74 ? S 0:00 \\_ [scsi\_eh\_0]

75 ? S< 0:00 \\_ [scsi\_tmf\_0]

76 ? S 0:00 \\_ [scsi\_eh\_1]

77 ? S< 0:00 \\_ [scsi\_tmf\_1]

83 ? S< 0:00 \\_ [ipv6\_addrconf]

96 ? S< 0:00 \\_ [deferwq]

97 ? S< 0:00 \\_ [charger\_manager]

98 ? S< 0:00 \\_ [bioset]

141 ? S< 0:00 \\_ [kpsmoused]

142 ? S 0:00 \\_ [kworker/0:2]

143 ? S 0:00 \\_ [scsi\_eh\_2]

144 ? S< 0:00 \\_ [scsi\_tmf\_2]

145 ? S 0:00 \\_ [kworker/1:2]

183 ? S< 0:00 \\_ [kworker/0:1H]

184 ? S< 0:00 \\_ [bioset]

259 ? S< 0:00 \\_ [raid5wq]

285 ? S< 0:00 \\_ [kdmflush]

286 ? S< 0:00 \\_ [bioset]

296 ? S< 0:00 \\_ [kdmflush]

297 ? S< 0:00 \\_ [bioset]

307 ? S< 0:00 \\_ [bioset]

335 ? S 0:00 \\_ [jbd2/dm-0-8]

336 ? S< 0:00 \\_ [ext4-rsv-conver]

400 ? S 0:00 \\_ [kauditd]

419 ? S< 0:00 \\_ [iscsi\_eh]

425 ? S< 0:00 \\_ [ib\_addr]

428 ? S< 0:00 \\_ [ib\_mcast]

429 ? S< 0:00 \\_ [ib\_nl\_sa\_wq]

430 ? S< 0:00 \\_ [ib\_cm]

431 ? S< 0:00 \\_ [iw\_cm\_wq]

432 ? S< 0:00 \\_ [rdma\_cm]

513 ? S< 0:00 \\_ [kworker/2:1H]

518 ? S< 0:00 \\_ [iprt-VBoxWQueue]

639 ? S< 0:00 \\_ [ttm\_swap]

735 ? S< 0:00 \\_ [ext4-rsv-conver]

736 ? S< 0:00 \\_ [kworker/3:1H]

943 ? S< 0:00 \\_ [kworker/1:1H]

1493 ? S 0:00 \\_ [kworker/u8:2]

2992 ? S 0:00 \\_ [kworker/3:0]

3166 ? S 0:00 \\_ [kworker/1:0]

3311 ? S 0:00 \\_ [kworker/2:0]

3413 ? S 0:00 \\_ [kworker/0:3]

3475 ? S 0:00 \\_ [kworker/u8:1]

3479 ? S 0:00 \\_ [kworker/3:2]

3499 ? S 0:00 \\_ [kworker/0:0]

3596 ? S 0:00 \\_ [kworker/3:3]

3622 ? S 0:00 \\_ [kworker/1:1]

3649 ? S 0:00 \\_ [kworker/2:2]

3664 ? S 0:00 \\_ [kworker/u8:0]

1 ? Ss 0:01 /sbin/init

391 ? Ss 0:00 /lib/systemd/systemd-journald

440 ? Ss 0:00 /sbin/lvmetad -f

447 ? Ss 0:00 /lib/systemd/systemd-udevd

767 ? Ssl 0:00 /lib/systemd/systemd-timesyncd

871 ? Ssl 0:00 /usr/sbin/rsyslogd -n

873 ? Ssl 0:00 /usr/bin/lxcfs /var/lib/lxcfs/

875 ? Ss 0:00 /usr/bin/dbus-daemon --system --address=systemd: --nofork --nopidfile --systemd-activation

906 ? Ss 0:00 /usr/sbin/acpid

915 ? Ssl 0:00 /usr/lib/snapd/snapd

921 ? Ss 0:00 /lib/systemd/systemd-logind

939 ? Ss 0:00 /usr/sbin/cron -f

941 ? Ssl 0:00 /usr/lib/accountsservice/accounts-daemon

944 ? Ss 0:00 /usr/sbin/atd -f

971 ? Ss 0:00 /sbin/dhclient -1 -v -pf /run/dhclient.enp0s3.pid -lf /var/lib/dhcp/dhclient.enp0s3.leases -I -df /var/

1080 ? Ss 0:00 /sbin/mdadm --monitor --pid-file /run/mdadm/monitor.pid --daemonise --scan --syslog

1089 ? Ss 0:00 /usr/sbin/sshd -D

1193 ? Ss 0:00 \\_ sshd: root@pts/0

1270 pts/0 Ss 0:00 \\_ -bash

3810 pts/0 R+ 0:00 \\_ ps -fax

1109 ? Ss 0:00 /sbin/iscsid

1110 ? S<Ls 0:00 /sbin/iscsid

1123 ? Ssl 0:00 /usr/lib/policykit-1/polkitd --no-debug

1162 tty1 Ss+ 0:00 /sbin/agetty --noclear tty1 linux

1175 ? Ss 0:00 /usr/sbin/irqbalance --pid=/var/run/irqbalance.pid

1195 ? Ss 0:00 /lib/systemd/systemd --user

1197 ? S 0:00 \\_ (sd-pam)

3085 ? Ssl 0:21 /usr/bin/dockerd -H fd://

3095 ? Ssl 0:01 \\_ docker-containerd -l unix:///var/run/docker/libcontainerd/docker-containerd.sock --metrics-interval

root@docker-server:~#

root@docker-server:~# docker ps -a

CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES

c785325c6128 ubuntu "/bin/bash" About a minute ago Up About a minute inspiring\_bohr

77ca9aec4498 hello-world "/hello" 5 minutes ago Exited (0) 5 minutes ago relaxed\_kowalevski

13fd23565f0d hello-world "/hello" 14 minutes ago Exited (0) 14 minutes ago quizzical\_leavitt

root@docker-server:~#

root@docker-server:~#

root@docker-server:~#

root@docker-server:~# free -

total used free shared buff/cache available

Mem: 4046240 114368 2553480 5916 1378392 3650096

Swap: 1048572 0 1048572

root@docker-server:~# free -m

total used free shared buff/cache available

Mem: 3951 111 2493 5 1346 3564

Swap: 1023 0 1023

root@docker-server:~#

root@docker-server:~#

root@docker-server:~#

root@docker-server:~#

root@docker-server:~# docker ps -a

CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES

c785325c6128 ubuntu "/bin/bash" 7 minutes ago Exited (0) 9 seconds ago inspiring\_bohr

77ca9aec4498 hello-world "/hello" 10 minutes ago Exited (0) 10 minutes ago relaxed\_kowalevski

13fd23565f0d hello-world "/hello" 20 minutes ago Exited (0) 20 minutes ago quizzical\_leavitt

root@docker-server:~# docker rm c785325c6128

c785325c6128

root@docker-server:~# docker ps -aq

77ca9aec4498

13fd23565f0d

root@docker-server:~# docker rm $(docker ps -aq)

77ca9aec4498

13fd23565f0d

root@docker-server:~#

t@c785325c6128:/#

root@c785325c6128:/# free -

total used free shared buff/cache available

Mem: 4046240 114368 2553448 5916 1378424 3650092

Swap: 1048572 0 1048572

root@c785325c6128:/# free -m

total used free shared buff/cache available

Mem: 3951 111 2493 5 1346 3564

Swap: 1023 0 1023

root@c785325c6128:/# exit

exit

root@docker-server:~# dockerm ^C

root@docker-server:~#

root@docker-server:~#

root@docker-server:~#

root@docker-server:~#

root@docker-server:~#

root@docker-server:~#

root@docker-server:~# docker ps -a

CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES

root@docker-server:~# docker images

REPOSITORY TAG IMAGE ID CREATED SIZE

ubuntu latest ebcd9d4fca80 5 days ago 118 MB

centos latest 8140d0c64310 8 days ago 193 MB

debian latest 3e83c23dba6a 11 days ago 124 MB

fedora latest 15895ef0b3b2 4 weeks ago 231 MB

hello-world latest 48b5124b2768 4 months ago 1.84 kB

root@docker-server:~# docker run -ti centos

[root@78f297ee6e03 /]#

[root@78f297ee6e03 /]#

[root@78f297ee6e03 /]#

[root@78f297ee6e03 /]#

[root@78f297ee6e03 /]# cat /etc/redhat-release

CentOS Linux release 7.3.1611 (Core)

[root@78f297ee6e03 /]#

[root@78f297ee6e03 /]# exit

exit

(reverse-i-search)`m': docker i^Cges

(reverse-i-search)`m ': vi^C/etc/hostname

(reverse-i-search)`od': vim 10peri^Cic

root@docker-server:~# docker rm^C

root@docker-server:~# ^C

(reverse-i-search)`$': add-apt-repository "deb [arch=amd64] https://download.docker.com/linux/ubuntu ^Clsb\_release -cs) stable"

root@docker-server:~# ^C

root@docker-server:~# docker rm $(docker ps -aq(

> ^C

root@docker-server:~# docker rm $(docker ps -aq)

78f297ee6e03

root@docker-server:~#

root@docker-server:~#

root@docker-server:~#

root@docker-server:~# docker run -ti ubuntu

root@9168460d4ff7:/# apt-get update -y

Get:1 http://security.ubuntu.com/ubuntu xenial-security InRelease [102 kB]

Get:2 http://archive.ubuntu.com/ubuntu xenial InRelease [247 kB]

Get:3 http://security.ubuntu.com/ubuntu xenial-security/universe Sources [31.3 kB]

Get:4 http://security.ubuntu.com/ubuntu xenial-security/main amd64 Packages [333 kB]

Get:5 http://security.ubuntu.com/ubuntu xenial-security/restricted amd64 Packages [12.8 kB]

Get:6 http://security.ubuntu.com/ubuntu xenial-security/universe amd64 Packages [141 kB]

Get:7 http://security.ubuntu.com/ubuntu xenial-security/multiverse amd64 Packages [2932 B]

Get:8 http://archive.ubuntu.com/ubuntu xenial-updates InRelease [102 kB]

Get:9 http://archive.ubuntu.com/ubuntu xenial-backports InRelease [102 kB]

Get:10 http://archive.ubuntu.com/ubuntu xenial/universe Sources [9802 kB]

Get:11 http://archive.ubuntu.com/ubuntu xenial/main amd64 Packages [1558 kB]

Get:12 http://archive.ubuntu.com/ubuntu xenial/restricted amd64 Packages [14.1 kB]

Get:13 http://archive.ubuntu.com/ubuntu xenial/universe amd64 Packages [9827 kB]

Get:14 http://archive.ubuntu.com/ubuntu xenial/multiverse amd64 Packages [176 kB]

Get:15 http://archive.ubuntu.com/ubuntu xenial-updates/universe Sources [192 kB]

Get:16 http://archive.ubuntu.com/ubuntu xenial-updates/main amd64 Packages [689 kB]

Get:17 http://archive.ubuntu.com/ubuntu xenial-updates/restricted amd64 Packages [13.2 kB]

Get:18 http://archive.ubuntu.com/ubuntu xenial-updates/universe amd64 Packages [591 kB]

Get:19 http://archive.ubuntu.com/ubuntu xenial-updates/multiverse amd64 Packages [9810 B]

Get:20 http://archive.ubuntu.com/ubuntu xenial-backports/main amd64 Packages [4927 B]

Get:21 http://archive.ubuntu.com/ubuntu xenial-backports/universe amd64 Packages [4801 B]

Fetched 24.0 MB in 19s (1212 kB/s)

Reading package lists... Done

root@9168460d4ff7:/# apt-get install vim node-js -y

Reading package lists... Done

Building dependency tree

Reading state information... Done

E: Unable to locate package node-js

root@9168460d4ff7:/# apt-get install vim nodejs -y

Reading package lists... Done

Building dependency tree

Reading state information... Done

The following additional packages will be installed:

file libexpat1 libgpm2 libicu55 libmagic1 libmpdec2 libpython3.5 libpython3.5-minimal libpython3.5-stdlib libsqlite3-0

libssl1.0.0 libuv1 mime-support vim-common vim-runtime

Suggested packages:

gpm ctags vim-doc vim-scripts vim-gnome-py2 | vim-gtk-py2 | vim-gtk3-py2 | vim-athena-py2 | vim-nox-py2

The following NEW packages will be installed:

file libexpat1 libgpm2 libicu55 libmagic1 libmpdec2 libpython3.5 libpython3.5-minimal libpython3.5-stdlib libsqlite3-0

libssl1.0.0 libuv1 mime-support nodejs vim vim-common vim-runtime

0 upgraded, 17 newly installed, 0 to remove and 3 not upgraded.

Need to get 23.1 MB of archives.

After this operation, 103 MB of additional disk space will be used.

Get:1 http://archive.ubuntu.com/ubuntu xenial/main amd64 libgpm2 amd64 1.20.4-6.1 [16.5 kB]

Get:2 http://archive.ubuntu.com/ubuntu xenial/main amd64 libmagic1 amd64 1:5.25-2ubuntu1 [216 kB]

Get:3 http://archive.ubuntu.com/ubuntu xenial/main amd64 file amd64 1:5.25-2ubuntu1 [21.2 kB]

Get:4 http://archive.ubuntu.com/ubuntu xenial-updates/main amd64 libexpat1 amd64 2.1.0-7ubuntu0.16.04.2 [71.3 kB]

Get:5 http://archive.ubuntu.com/ubuntu xenial/main amd64 libmpdec2 amd64 2.4.2-1 [82.6 kB]

Get:6 http://archive.ubuntu.com/ubuntu xenial-updates/main amd64 libssl1.0.0 amd64 1.0.2g-1ubuntu4.6 [1082 kB]

Get:7 http://archive.ubuntu.com/ubuntu xenial-updates/main amd64 libpython3.5-minimal amd64 3.5.2-2ubuntu0~16.04.1 [526 kB]

Get:8 http://archive.ubuntu.com/ubuntu xenial/main amd64 mime-support all 3.59ubuntu1 [31.0 kB]

Get:9 http://archive.ubuntu.com/ubuntu xenial/main amd64 libsqlite3-0 amd64 3.11.0-1ubuntu1 [396 kB]

Get:10 http://archive.ubuntu.com/ubuntu xenial-updates/main amd64 libpython3.5-stdlib amd64 3.5.2-2ubuntu0~16.04.1 [2130 kB]

Get:11 http://archive.ubuntu.com/ubuntu xenial-updates/main amd64 vim-common amd64 2:7.4.1689-3ubuntu1.2 [103 kB]

Get:12 http://archive.ubuntu.com/ubuntu xenial-updates/main amd64 libicu55 amd64 55.1-7ubuntu0.2 [7659 kB]

Get:13 http://archive.ubuntu.com/ubuntu xenial-updates/main amd64 libpython3.5 amd64 3.5.2-2ubuntu0~16.04.1 [1360 kB]

Get:14 http://archive.ubuntu.com/ubuntu xenial/universe amd64 libuv1 amd64 1.8.0-1 [57.4 kB]

Get:15 http://archive.ubuntu.com/ubuntu xenial-updates/main amd64 vim-runtime all 2:7.4.1689-3ubuntu1.2 [5164 kB]

Get:16 http://archive.ubuntu.com/ubuntu xenial-updates/main amd64 vim amd64 2:7.4.1689-3ubuntu1.2 [1036 kB]

Get:17 http://archive.ubuntu.com/ubuntu xenial-updates/universe amd64 nodejs amd64 4.2.6~dfsg-1ubuntu4.1 [3161 kB]

Fetched 23.1 MB in 10s (2297 kB/s)

debconf: delaying package configuration, since apt-utils is not installed

Selecting previously unselected package libgpm2:amd64.

(Reading database ... 4764 files and directories currently installed.)

Preparing to unpack .../libgpm2\_1.20.4-6.1\_amd64.deb ...

Unpacking libgpm2:amd64 (1.20.4-6.1) ...

Selecting previously unselected package libmagic1:amd64.

Preparing to unpack .../libmagic1\_1%3a5.25-2ubuntu1\_amd64.deb ...

Unpacking libmagic1:amd64 (1:5.25-2ubuntu1) ...

Selecting previously unselected package file.

Preparing to unpack .../file\_1%3a5.25-2ubuntu1\_amd64.deb ...

Unpacking file (1:5.25-2ubuntu1) ...

Selecting previously unselected package libexpat1:amd64.

Preparing to unpack .../libexpat1\_2.1.0-7ubuntu0.16.04.2\_amd64.deb ...

Unpacking libexpat1:amd64 (2.1.0-7ubuntu0.16.04.2) ...

Selecting previously unselected package libmpdec2:amd64.

Preparing to unpack .../libmpdec2\_2.4.2-1\_amd64.deb ...

Unpacking libmpdec2:amd64 (2.4.2-1) ...

Selecting previously unselected package libssl1.0.0:amd64.

Preparing to unpack .../libssl1.0.0\_1.0.2g-1ubuntu4.6\_amd64.deb ...

Unpacking libssl1.0.0:amd64 (1.0.2g-1ubuntu4.6) ...

Selecting previously unselected package libpython3.5-minimal:amd64.

Preparing to unpack .../libpython3.5-minimal\_3.5.2-2ubuntu0~16.04.1\_amd64.deb ...

Unpacking libpython3.5-minimal:amd64 (3.5.2-2ubuntu0~16.04.1) ...

Selecting previously unselected package mime-support.

Preparing to unpack .../mime-support\_3.59ubuntu1\_all.deb ...

Unpacking mime-support (3.59ubuntu1) ...

Selecting previously unselected package libsqlite3-0:amd64.

Preparing to unpack .../libsqlite3-0\_3.11.0-1ubuntu1\_amd64.deb ...

Unpacking libsqlite3-0:amd64 (3.11.0-1ubuntu1) ...

Selecting previously unselected package libpython3.5-stdlib:amd64.

Preparing to unpack .../libpython3.5-stdlib\_3.5.2-2ubuntu0~16.04.1\_amd64.deb ...

Unpacking libpython3.5-stdlib:amd64 (3.5.2-2ubuntu0~16.04.1) ...

Selecting previously unselected package vim-common.

Preparing to unpack .../vim-common\_2%3a7.4.1689-3ubuntu1.2\_amd64.deb ...

Unpacking vim-common (2:7.4.1689-3ubuntu1.2) ...

Selecting previously unselected package libicu55:amd64.

Preparing to unpack .../libicu55\_55.1-7ubuntu0.2\_amd64.deb ...

Unpacking libicu55:amd64 (55.1-7ubuntu0.2) ...

Selecting previously unselected package libpython3.5:amd64.

Preparing to unpack .../libpython3.5\_3.5.2-2ubuntu0~16.04.1\_amd64.deb ...

Unpacking libpython3.5:amd64 (3.5.2-2ubuntu0~16.04.1) ...

Selecting previously unselected package libuv1:amd64.

Preparing to unpack .../libuv1\_1.8.0-1\_amd64.deb ...

Unpacking libuv1:amd64 (1.8.0-1) ...

Selecting previously unselected package vim-runtime.

Preparing to unpack .../vim-runtime\_2%3a7.4.1689-3ubuntu1.2\_all.deb ...

Adding 'diversion of /usr/share/vim/vim74/doc/help.txt to /usr/share/vim/vim74/doc/help.txt.vim-tiny by vim-runtime'

Adding 'diversion of /usr/share/vim/vim74/doc/tags to /usr/share/vim/vim74/doc/tags.vim-tiny by vim-runtime'

Unpacking vim-runtime (2:7.4.1689-3ubuntu1.2) ...

Selecting previously unselected package vim.

Preparing to unpack .../vim\_2%3a7.4.1689-3ubuntu1.2\_amd64.deb ...

Unpacking vim (2:7.4.1689-3ubuntu1.2) ...

Selecting previously unselected package nodejs.

Preparing to unpack .../nodejs\_4.2.6~dfsg-1ubuntu4.1\_amd64.deb ...

Unpacking nodejs (4.2.6~dfsg-1ubuntu4.1) ...

Processing triggers for libc-bin (2.23-0ubuntu7) ...

Setting up libgpm2:amd64 (1.20.4-6.1) ...

Setting up libmagic1:amd64 (1:5.25-2ubuntu1) ...

Setting up file (1:5.25-2ubuntu1) ...

Setting up libexpat1:amd64 (2.1.0-7ubuntu0.16.04.2) ...

Setting up libmpdec2:amd64 (2.4.2-1) ...

Setting up libssl1.0.0:amd64 (1.0.2g-1ubuntu4.6) ...

debconf: unable to initialize frontend: Dialog

debconf: (No usable dialog-like program is installed, so the dialog based frontend cannot be used. at /usr/share/perl5/Debconf/FrontEnd/Dialog.pm line 76.)

debconf: falling back to frontend: Readline

debconf: unable to initialize frontend: Readline

debconf: (Can't locate Term/ReadLine.pm in @INC (you may need to install the Term::ReadLine module) (@INC contains: /etc/perl /usr/local/lib/x86\_64-linux-gnu/perl/5.22.1 /usr/local/share/perl/5.22.1 /usr/lib/x86\_64-linux-gnu/perl5/5.22 /usr/share/perl5 /usr/lib/x86\_64-linux-gnu/perl/5.22 /usr/share/perl/5.22 /usr/local/lib/site\_perl /usr/lib/x86\_64-linux-gnu/perl-base .) at /usr/share/perl5/Debconf/FrontEnd/Readline.pm line 7.)

debconf: falling back to frontend: Teletype

Setting up libpython3.5-minimal:amd64 (3.5.2-2ubuntu0~16.04.1) ...

Setting up mime-support (3.59ubuntu1) ...

Setting up libsqlite3-0:amd64 (3.11.0-1ubuntu1) ...

Setting up libpython3.5-stdlib:amd64 (3.5.2-2ubuntu0~16.04.1) ...

Setting up vim-common (2:7.4.1689-3ubuntu1.2) ...

Setting up libicu55:amd64 (55.1-7ubuntu0.2) ...

Setting up libpython3.5:amd64 (3.5.2-2ubuntu0~16.04.1) ...

Setting up libuv1:amd64 (1.8.0-1) ...

Setting up vim-runtime (2:7.4.1689-3ubuntu1.2) ...

Setting up vim (2:7.4.1689-3ubuntu1.2) ...

update-alternatives: using /usr/bin/vim.basic to provide /usr/bin/vim (vim) in auto mode

update-alternatives: using /usr/bin/vim.basic to provide /usr/bin/vimdiff (vimdiff) in auto mode

update-alternatives: using /usr/bin/vim.basic to provide /usr/bin/rvim (rvim) in auto mode

update-alternatives: using /usr/bin/vim.basic to provide /usr/bin/rview (rview) in auto mode

update-alternatives: using /usr/bin/vim.basic to provide /usr/bin/vi (vi) in auto mode

update-alternatives: using /usr/bin/vim.basic to provide /usr/bin/view (view) in auto mode

update-alternatives: using /usr/bin/vim.basic to provide /usr/bin/ex (ex) in auto mode

update-alternatives: using /usr/bin/vim.basic to provide /usr/bin/editor (editor) in auto mode

Setting up nodejs (4.2.6~dfsg-1ubuntu4.1) ...

update-alternatives: using /usr/bin/nodejs to provide /usr/bin/js (js) in auto mode

Processing triggers for libc-bin (2.23-0ubuntu7) ...

root@9168460d4ff7:/# exit

exit

root@docker-server:~# docker commit -m "Added node js" -a "Amir" 9168460d4ff7 aamirahmad170/ubuntu-nodejs

sha256:310a4029cf2c292413645af4ced995960d3d86450cd4b3a5d035d30286d8d178

root@docker-server:~# docker login -u aamirahmad170

Password:

Login Succeeded

root@docker-server:~#

root@docker-server:~#

root@docker-server:~#

root@docker-server:~#

root@docker-server:~# soxkwe ^C

root@docker-server:~# ^C

root@docker-server:~# ^C

root@docker-server:~# docker push aamirahmad170^C

root@docker-server:~# docker images

REPOSITORY TAG IMAGE ID CREATED SIZE

aamirahmad170/ubuntu-nodejs latest 310a4029cf2c About a minute ago 258 MB

ubuntu latest ebcd9d4fca80 5 days ago 118 MB

centos latest 8140d0c64310 8 days ago 193 MB

debian latest 3e83c23dba6a 11 days ago 124 MB

fedora latest 15895ef0b3b2 4 weeks ago 231 MB

hello-world latest 48b5124b2768 4 months ago 1.84 kB

root@docker-server:~# docker push aamirahmad170/ubuntu-nodejs

The push refers to a repository [docker.io/aamirahmad170/ubuntu-nodejs]

98661b00353f: Pushed

33f1a94ed7fc: Mounted from library/ubuntu

b27287a6dbce: Mounted from library/ubuntu

47c2386f248c: Mounted from library/ubuntu

2be95f0d8a0c: Mounted from library/ubuntu

2df9b8def18a: Mounted from library/ubuntu

latest: digest: sha256:bdfbe9f245b8325d1869c6a105c2e5fd48391a8944e02a9557e978dc01fbb608 size: 1569

root@docker-server:~#

root@docker-server:~# docker rm^C

root@docker-server:~# docker images

REPOSITORY TAG IMAGE ID CREATED SIZE

aamirahmad170/ubuntu-nodejs latest 310a4029cf2c 4 minutes ago 258 MB

ubuntu latest ebcd9d4fca80 5 days ago 118 MB

centos latest 8140d0c64310 8 days ago 193 MB

debian latest 3e83c23dba6a 11 days ago 124 MB

fedora latest 15895ef0b3b2 4 weeks ago 231 MB

hello-world latest 48b5124b2768 4 months ago 1.84 kB

root@docker-server:~# docker rmi 310a4029cf2c ebcd9d4fca80 8140d0c64310 3e83c23dba6a 15895ef0b3b2 48b5124b2768

Untagged: aamirahmad170/ubuntu-nodejs:latest

Untagged: aamirahmad170/ubuntu-nodejs@sha256:bdfbe9f245b8325d1869c6a105c2e5fd48391a8944e02a9557e978dc01fbb608

Deleted: sha256:310a4029cf2c292413645af4ced995960d3d86450cd4b3a5d035d30286d8d178

Deleted: sha256:7ee0ba584d5b9c52300063a8ef9bb37fc630a7833972bb10fd21a21e3a300069

Untagged: centos:latest

Untagged: centos@sha256:bba1de7c9d900a898e3cadbae040dfe8a633c06bc104a0df76ae24483e03c077

Deleted: sha256:8140d0c64310d4e290bf3938757837dbb8f806acba0cb3f6a852558074345348

Deleted: sha256:b51149973e6a6c4fb1091ef34ff70002ee307e971b9982075cf226004a93c9b7

Untagged: debian:latest

Untagged: debian@sha256:476959f29a17423a24a17716e058352ff6fbf13d8389e4a561c8ccc758245937

Deleted: sha256:3e83c23dba6a16cd936a3dc044df71b26706c5a4c28181bc3ca4a4af9f5f38ee

Deleted: sha256:8d4d1ab5ff74fc361fb74212fff3b6dc1e6c16d1e1f0e8b44f9a9112b00b564f

Untagged: fedora:latest

Untagged: fedora@sha256:69281ddd7b2600e5f2b17f1e12d7fba25207f459204fb2d15884f8432c479136

Deleted: sha256:15895ef0b3b2b4e61bf03d38f82b42011ff7f226c681705a4022ae3d1d643888

Deleted: sha256:53e6d99f7596f656354b326bd771a14ed68f0676f05793a9c3d3b799ae447977

Untagged: hello-world:latest

Untagged: hello-world@sha256:c5515758d4c5e1e838e9cd307f6c6a0d620b5e07e6f927b07d05f6d12a1ac8d7

Deleted: sha256:48b5124b2768d2b917edcb640435044a97967015485e812545546cbed5cf0233

Deleted: sha256:98c944e98de8d35097100ff70a31083ec57704be0991a92c51700465e4544d08

Error response from daemon: conflict: unable to delete ebcd9d4fca80 (must be forced) - image is being used by stopped container 9168460d4ff7

root@docker-server:~# docker images

REPOSITORY TAG IMAGE ID CREATED SIZE

ubuntu latest ebcd9d4fca80 5 days ago 118 MB

root@docker-server:~# docker rmi -f 48b5124b2768

Error response from daemon: No such image: 48b5124b2768:latest

root@docker-server:~# docker rmi -f ebcd9d4fca80

Untagged: ubuntu:latest

Untagged: ubuntu@sha256:382452f82a8bbd34443b2c727650af46aced0f94a44463c62a9848133ecb1aa8

Deleted: sha256:ebcd9d4fca80e9e8afc525d8a38e7c56825dfb4a220ed77156f9fb13b14d4ab7

root@docker-server:~# docker images

REPOSITORY TAG IMAGE ID CREATED SIZE

root@docker-server:~#

Summary:-

Connected the builds using upstream/downstream plygin

Created a jenkins pipeline

Talked about docker

Imporrted a fresh vm

Renamed the vm

Installed docker on the vm

Pulled the hello-world images

Pulled four images (centos, fedora, debian , and ubuntu)

Docker commands like -v, run , pull, push , commint, login , ps , rmi, rm ,

Changed a docker containers

Pushed it to docker hub

Pulle dit back again

Talked about docker networking, volumes and docker files

Tommorows agenda:-

Practical handson of Docker networking, Docker volumes, Docker files, integration of jenkins with docker