

Computer science 5525 0001
cloud computing

Project version1.1

BY

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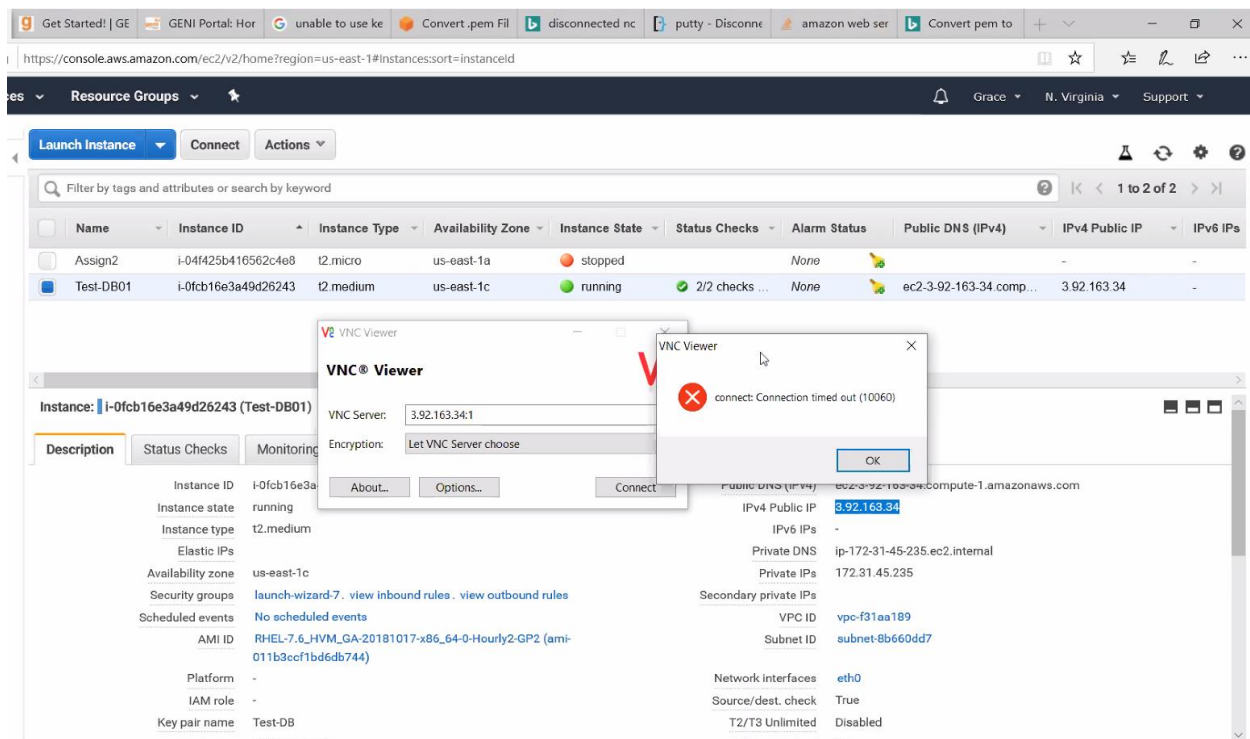
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Step1: To Achieve our performance evaluation as a first step we need to create cloud accounts in private clouds like AWS, Oracle cloud and Google cloud Platform and activate your educative version or free tier account .

Step2: As of the second step in our database project we prerequisite the AWS settings for oracle DB to setup in aws .

- The reason why we have chosen oracle DB instead of other Databases like sql is if we have to perform the SQL we need windows OS which will cause more billing in private cloud platforms inorder to reduce the cost and make it cost effective we are setting a linux machine with EBS volume of 100GB.
- The prerequisite set up for AWS linux server requires RPM (redhat package manager) which is a free and open source manager for linux redhat .

Step3: The installation screen shots of those prerequisite rpm manager package using putty and SSH keys.




```

[root@ip-172-31-45-235 yum.repos.d]# cd
[root@ip-172-31-45-235 ~]# yum install oracle-rdbms-server-11gR2-preinstall
Loaded plugins: amazon-id, rhui-lb, search-disabled-repos
ol7_UEKR5
ol7_latest
(1/5): ol7_UEKR5/x86_64/updateinfo
(2/5): ol7_UEKR5/x86_64/primary
(3/5): ol7_latest/x86_64/group
(4/5): ol7_latest/x86_64/updateinfo
(5/5): ol7_latest/x86_64/primary
ol7_UEKR5
ol7_latest
Resolving Dependencies
--> Running transaction check
--> Package oracle-rdbms-server-11gR2-preinstall.x86_64 0:1.0-6.el7 will be installed
--> Processing Dependency: bc for package: oracle-rdbms-server-11gR2-preinstall-1.0-6.el7.x86_64
--> Processing Dependency: gcc for package: oracle-rdbms-server-11gR2-preinstall-1.0-6.el7.x86_64
--> Processing Dependency: sysstat for package: oracle-rdbms-server-11gR2-preinstall-1.0-6.el7.x86_64

```

```

Installed:
  oracle-rdbms-server-11gR2-preinstall.x86_64 0:1.0-6.el7

Dependency Installed:
  bc.x86_64 0:1.06.95-13.el7
  compat-libstdc++-33.x86_64 0:3.2.3-72.el7
  glibc-devel.x86_64 0:2.17-260.0.15.el7_6.3
  kernel-headers.x86_64 0:3.10.0-957.10.1.el7
  libaio-devel.x86_64 0:0.3.109-13.el7
  libini_config.x86_64 0:1.3.1-32.el7
  libref_array.x86_64 0:0.1.5-32.el7
  lm_sensors-libs.x86_64 0:3.4.0-6.20160601gitf9185e5.el7
  psmisc.x86_64 0:22.20-15.el7
  smartmontools.x86_64 1:6.5-1.el7
  bind-libs.x86_64 32:9.9.4-73.el7_6
  cpp.x86_64 0:4.8.5-36.0.1.el7_6.1
  glibc-headers.x86_64 0:2.17-260.0.15.el7_6.3
  keyutils.x86_64 0:1.5.8-3.el7
  libbasicobjects.x86_64 0:0.1.1-32.el7
  libmpc.x86_64 0:1.0.1-3.el7
  libstdc++-devel.x86_64 0:4.8.5-36.0.1.el7_6.1
  mailx.x86_64 0:12.5-19.el7
  quota.x86_64 1:4.01-17.el7
  sysstat.x86_64 0:10.1.5-17.el7
  bind-utils.x86_64 32:9.9.4-73.el7_6
  gcc.x86_64 0:4.8.5-36.0.1.el7_6.1
  gssproxy.x86_64 0:0.7.0-1.el7
  ksh.x86_64 0:20120801-1.el7
  libcollection.x86_64 0:0.1.1-32.el7
  libnfsidmap.x86_64 0:0.1.1-32.el7
  libtirpc.x86_64 0:0.2.2-1.el7
  mpfr.x86_64 0:3.1.1-4.el7
  quota-nls.noarch 1:4.0-1.el7
  tcp_wrappers.x86_64 0:7.6-92.el7

Dependency Updated:
  bind-libs-lite.x86_64 32:9.9.4-73.el7_6
  libgcc.x86_64 0:4.8.5-36.0.1.el7_6.1
  bind-license.noarch 32:9.9.4-73.el7_6
  libgomp.x86_64 0:4.8.5-36.0.1.el7_6.1
  glibc.x86_64 0:2.17-260.0.15.el7_6.3
  libstdc++.x86_64 0:4.8.5-36.0.1.el7_6.1

Complete!
[root@ip-172-31-45-235 ~]#

```

Step4:Create a user and groups to run oracle database on oracle user.

```

[root@ip-172-31-45-235 ~]#
[root@ip-172-31-45-235 ~]#
[root@ip-172-31-45-235 ~]# groupadd -g 54321 oinstall
groupadd: group 'oinstall' already exists
[root@ip-172-31-45-235 ~]# groupmod -g 54321 oinstall
[root@ip-172-31-45-235 ~]# groupmod -g 54322 dba
[root@ip-172-31-45-235 ~]# groupmod -g 54323 oper
groupmod: group 'oper' does not exist
[root@ip-172-31-45-235 ~]# groupadd -g 54323 oper
[root@ip-172-31-45-235 ~]# useradd -g oinstall -G dba,oper oracle
useradd: user 'oracle' already exists
[root@ip-172-31-45-235 ~]# usermod -g oinstall -G dba,oper oracle
[root@ip-172-31-45-235 ~]#

```

Step5:Set password for oracle user.

```

[root@ip-172-31-45-235 ~]#
[root@ip-172-31-45-235 ~]#
[root@ip-172-31-45-235 ~]# passwd oracle
Changing password for user oracle.
New password:
BAD PASSWORD: The password is shorter than 8 characters
Retype new password:
passwd: all authentication tokens updated successfully.
[root@ip-172-31-45-235 ~]#

```

Step6:Disable Selinux permission inorder to take privileges for redhat linux in AWS.

```

[root@ip-172-31-45-235 ~]#
[root@ip-172-31-45-235 ~]# passwd oracle
Changing password for user oracle.
New password:
BAD PASSWORD: The password is shorter than 8 characters
Retype new password:
passwd: all authentication tokens updated successfully.
[root@ip-172-31-45-235 ~]# vi /etc/selinux/config
[root@ip-172-31-45-235 ~]# cat /etc/selinux/config

# This file controls the state of SELinux on the system.
# SELINUX= can take one of these three values:
#   enforcing - SELinux security policy is enforced.
#   permissive - SELinux prints warnings instead of enforcing.
#   disabled - No SELinux policy is loaded.
SELINUX=disabled
# SELINUXTYPE= can take one of three values:
#   targeted - Targeted processes are protected,
#   minimum - Modification of targeted policy. Only selected processes are protected.
#   mls - Multi Level Security protection.
SELINUXTYPE=targeted

[root@ip-172-31-45-235 ~]#

```

Step7:Stop and disable the linux firewall services.

```

[root@ip-172-31-45-235 ~]#
[root@ip-172-31-45-235 ~]# systemctl status firewalld
• firewalld.service - firewalld - dynamic firewall daemon
  Loaded: loaded (/usr/lib/systemd/system/firewalld.service; enabled; vendor preset: enabled)
  Active: inactive (dead)
  Docs: man:firewalld(1)
[root@ip-172-31-45-235 ~]# systemctl stop firewalld
[root@ip-172-31-45-235 ~]# systemctl disable firewalld
Removed symlink /etc/systemd/system/multi-user.target.wants/firewalld.service.
Removed symlink /etc/systemd/system/dbus-org.fedoraproject.FirewallD1.service.
[root@ip-172-31-45-235 ~]#

```

Step8:Create new directory for oracle binary installation.

```
[root@ip-172-31-45-235 ~]#  
[root@ip-172-31-45-235 ~]#  
[root@ip-172-31-45-235 ~]# mkdir -p /u01/app/oracle/product/11.2.0.4/db_1  
[root@ip-172-31-45-235 ~]# chown -R oracle:oinstall /u01  
[root@ip-172-31-45-235 ~]# chmod -R 775 /u01  
[root@ip-172-31-45-235 ~]#  
[root@ip-172-31-45-235 ~]#
```

Step9:Download oracle database software from oracle edelivery.

```
[oracle@ip-172-31-45-235 software]$ ll  
total 2295592  
-rw-rw-r-- 1 oracle oinstall 1239269270 Mar 23 12:17 linux.x64_11gR2_database_1of2.zip  
-rw-rw-r-- 1 oracle oinstall 1111416131 Mar 23 12:20 linux.x64_11gR2_database_2of2.zip  
[oracle@ip-172-31-45-235 software]$
```

Step10:Unzip the oracle database package

```
inflating: database/stage/Components/oracle.sysman.console.db/11.2.0.1.0/  
inflating: database/stage/Components/oracle.sysman.console.db/11.2.0.1.0/  
[oracle@ip-172-31-45-235 software]$ unzip linux.x64_11gR2_database_1of2.zip  
[oracle@ip-172-31-45-235 software]$ unzip linux.x64_11gR2_database_2of2.zip  
[oracle@ip-172-31-45-235 software]$
```

Step11:Installation of database package.

Go to the software location.

```
database linux.x64_11gR2_database_1of2.zip linux.x64_11gR2_database_2of2.zip  
[oracle@ip-172-31-45-235 software]$ ll  
total 2295592  
drwxr-xr-x 8 oracle oinstall      128 Aug 20  2009 database  
-rw-rw-r-- 1 oracle oinstall 1239269270 Mar 23 12:17 linux.x64_11gR2_database_1of2.zip  
-rw-rw-r-- 1 oracle oinstall 1111416131 Mar 23 12:20 linux.x64_11gR2_database_2of2.zip  
[oracle@ip-172-31-45-235 software]$
```

```

total 2295592
drwxr-xr-x 8 oracle oinstall      128 Aug 20  2009 database
-rw-rw-r-- 1 oracle oinstall 1239269270 Mar 23 12:17 linux.x64_11gR2_database_
-rw-rw-r-- 1 oracle oinstall 1111416131 Mar 23 12:20 linux.x64_11gR2_database_
[oracle@ip-172-31-45-235 software]$ cd database/
[oracle@ip-172-31-45-235 database]$ ls
doc  install  response  rpm  runInstaller  sshsetup  stage  welcome.html
[oracle@ip-172-31-45-235 database]$ ll
total 16
drwxr-xr-x 12 oracle oinstall  203 Aug 17  2009 doc
drwxr-xr-x  4 oracle oinstall  223 Aug 15  2009 install
drwxrwxr-x  2 oracle oinstall   61 Aug 15  2009 response
drwxr-xr-x  2 oracle oinstall   34 Aug 15  2009 rpm
-rwxr-xr-x  1 oracle oinstall 3226 Aug 15  2009 runInstaller
drwxrwxr-x  2 oracle oinstall   29 Aug 15  2009 sshsetup
drwxr-xr-x 14 oracle oinstall 4096 Aug 15  2009 stage
-rw-r--r--  1 oracle oinstall 5402 Aug 17  2009 welcome.html
[oracle@ip-172-31-45-235 database]$

```

```

drwxrwxr-x  2 oracle oinstall   29 Aug 15  2009 sshsetup
drwxr-xr-x 14 oracle oinstall 4096 Aug 15  2009 stage
-rw-r--r--  1 oracle oinstall 5402 Aug 17  2009 welcome.html
[oracle@ip-172-31-45-235 database]$ ./runInstaller &
[1] 17888
[oracle@ip-172-31-45-235 database]$ Starting Oracle Universal Installer...

Checking Temp space: must be greater than 120 MB.   Actual 94944 MB    Passed
Checking swap space: 0 MB available, 150 MB required.   Failed <<<<
Checking monitor: must be configured to display at least 256 colors.   Actual 16777216    Passed

Some requirement checks failed. You must fulfill these requirements before
continuing with the installation,

Continue? (y/n) [n]

```

Step12: We need to add swap space at least 4G

```

[root@ip-172-31-45-235 ~]#
[root@ip-172-31-45-235 ~]# dd if=/dev/zero of=/swapfile bs=1G count=8
8+0 records in
8+0 records out
8589934592 bytes (8.6 GB) copied, 123.824 s, 69.4 MB/s
[root@ip-172-31-45-235 ~]# chmod 600 /swapfile
[root@ip-172-31-45-235 ~]# mkswap /swapfile
Setting up swapspace version 1, size = 8388604 KiB
no label, UUID=f801b12c-3c52-4370-9e16-0d17bb24c753
[root@ip-172-31-45-235 ~]# swapon /swapfile
[root@ip-172-31-45-235 ~]# swapon -s

```

Filename	Type	Size	Used	Priority
/swapfile	file	8388604	0	-2

```

[root@ip-172-31-45-235 ~]# vi /etc/fstab
[root@ip-172-31-45-235 ~]# cat /etc/fstab
#
# /etc/fstab
# Created by anaconda on Wed Oct 17 12:18:06 2018
#
# Accessible filesystems, by reference, are maintained under '/dev/disk'
# See man pages fstab(5), findfs(8), mount(8) and/or blkid(8) for more info
#
UUID=88fd4d41-c180-4721-80c6-535249a4a2bb / xfs defaults 0 0
swapfile swap swap defaults 0 0
[root@ip-172-31-45-235 ~]#

```

Step13:Successfully oracle DB is uploaded inside the ec2 linux server. Further database creation will be uploaded in the successive time lines.

