IE2080
Database Systems Administration
2nd Year, 1st Semester

Assignment

Assignment – Part 1

Submitted to

Sri Lanka Institute of Information Technology

In partial fulfillment of the requirements for the

Bachelor of Science Special Honors Degree in Information Technology

28/03/2018

Declaration

I certify that this report does not incorporate without acknowledgement, any material previously submitted for a degree or diploma in any university, and to the best of my knowledge and belief it does not contain any material previously published or written by another person, except where due reference is made in text.

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Screenshots

1. Install require dependencies for RDBMS

   Code: *yum install -y binutils.x86_64 compat-libcap1.x86_64 gcc.x86_64 gcc-c++.x86_64 glibc.i686 glibc.x86_64 *
   *glibc-devel.i686 glibc-devel.x86_64 ksh compat-libstdc++-33 libaio.i686 libaio.x86_64 libaio-devel.i686 libaio-devel.x86_64 *
   *libgcc.i686 libgcc.x86_64 libstdc++.i686 libstdc++.x86_64 libstdc++-devel.i686 libstdc++-devel.x86_64 libXi.i686 libXi.x86_64 *
   libXtst.i686 libXtst.x86_64 make.x86_64 sysstat.x86_64

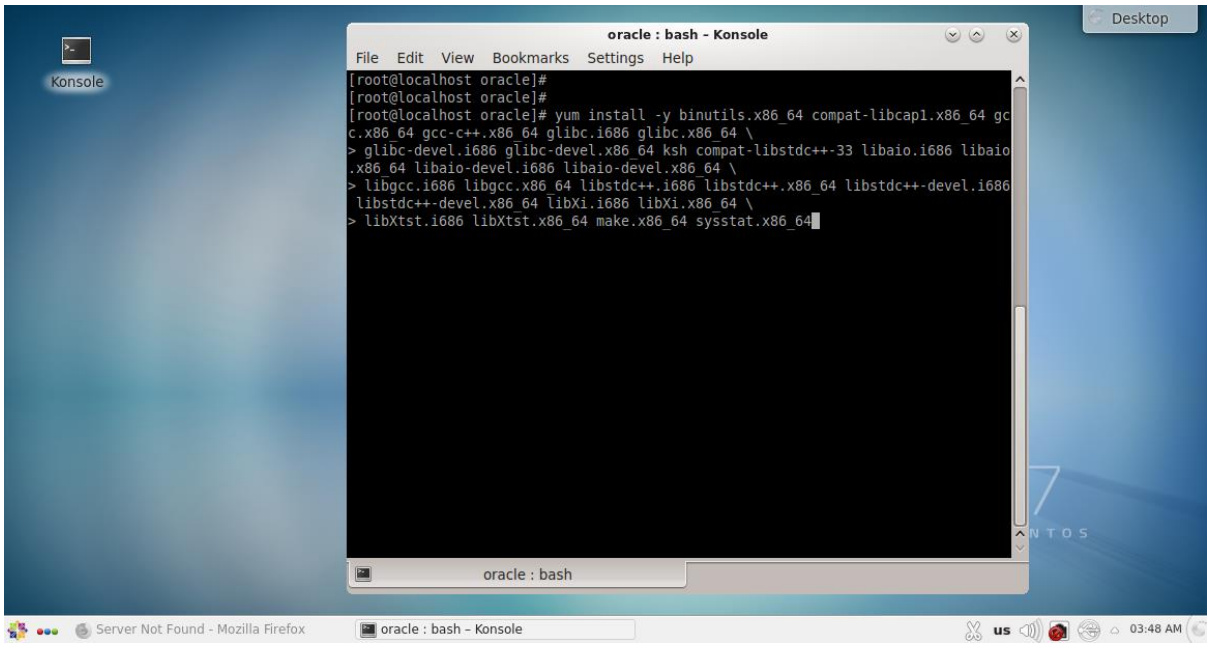

Figure 1.1:Code for install dependencies

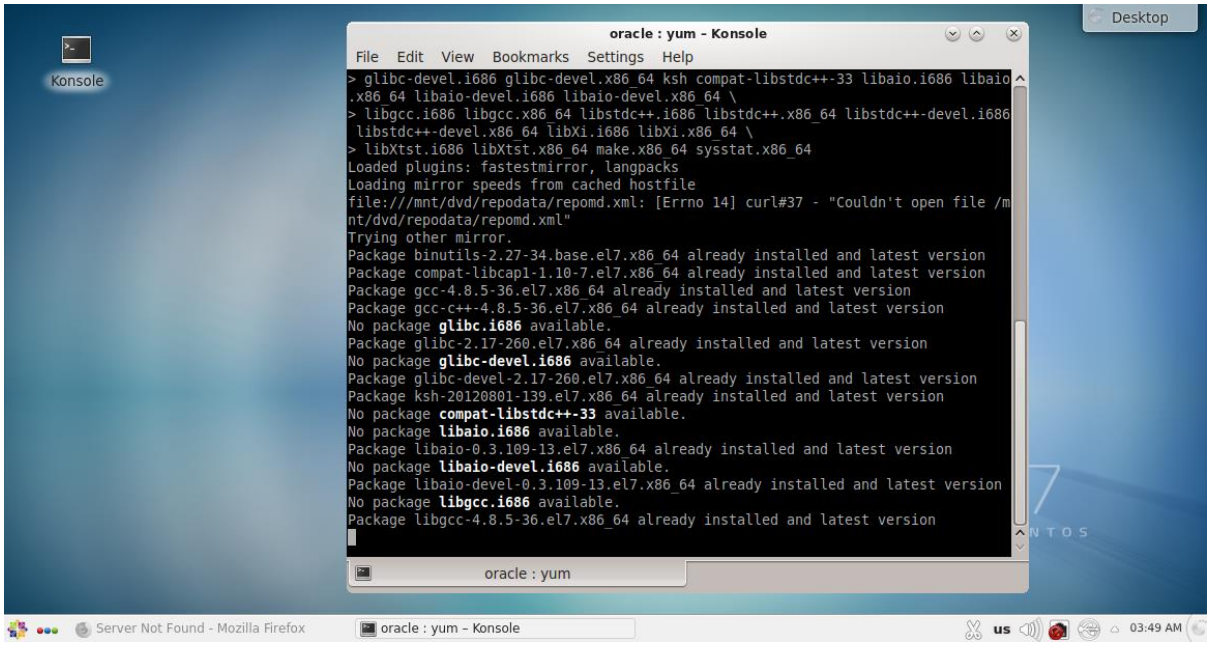

Figure 1.2: result

2. Create user account called “Oracle” and groups “oinstall”, “dba” for Oracle

   Adding group “oinstall” and “dba”
   Code: groupadd oinstall
   Groupadd oinstall

   Adding user “oracle”
   code: useradd –g oinstall –G dba oracle

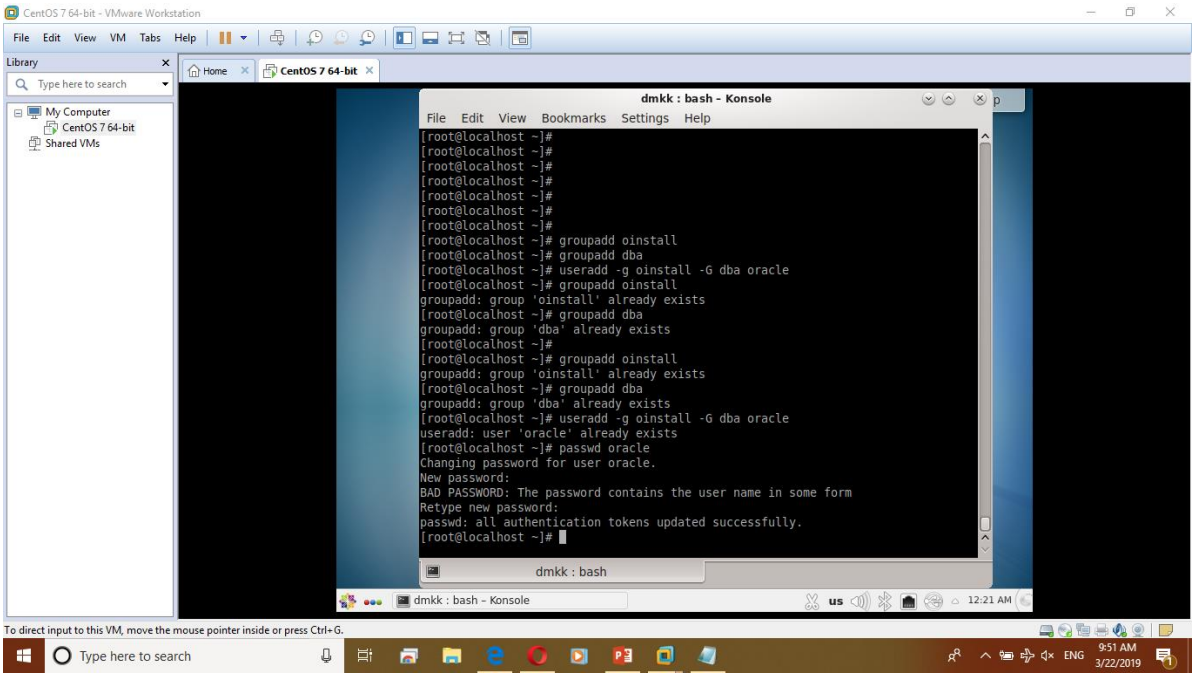

Figure 2: creating user account

3. Set a password for created oracle user account

   Setting password for oracle
   code: passwd oracle

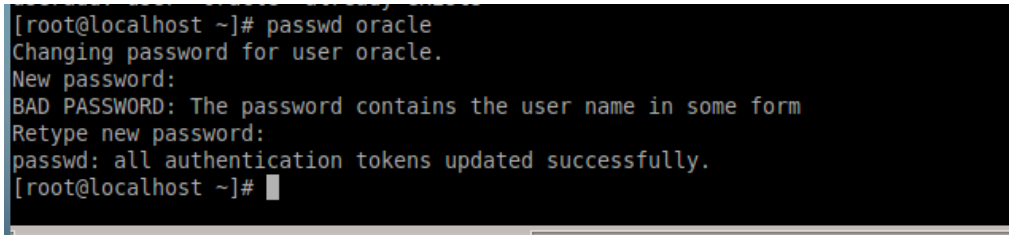

Figure 3: Setting Oracle user password

4. Add and apply required kernel parameters to /etc/sysctl.conf file

4.1 – Open Sysctl.conf from vi editor (Figure 4.1)

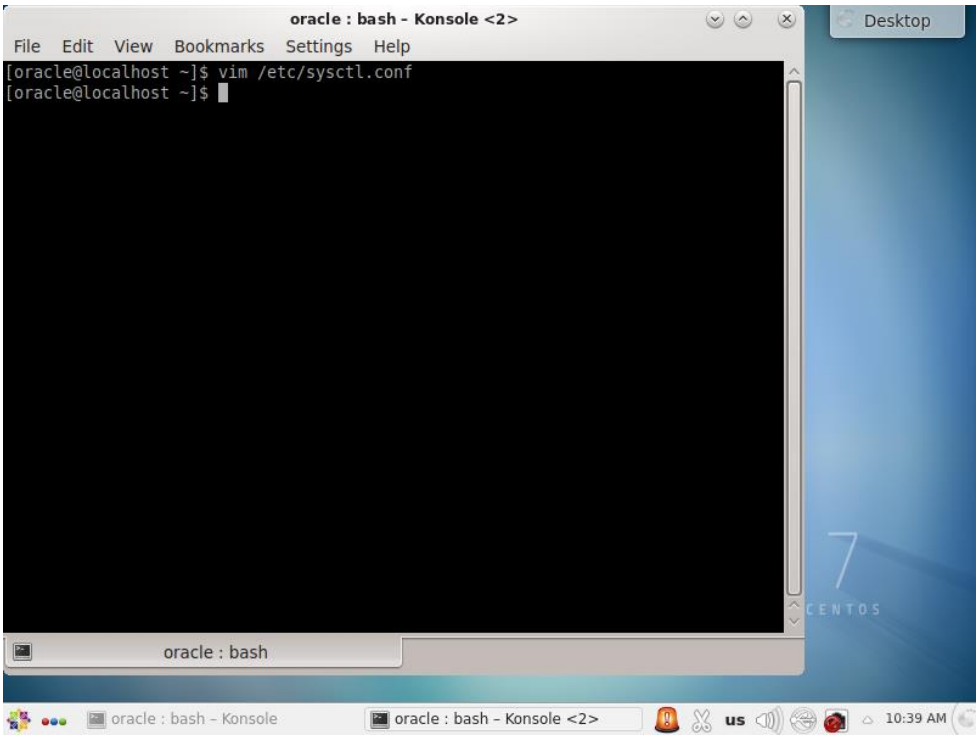

Figure 4.1: Open Sysctl.conf in vi editor

4.2 – Add Kernel Parameters :

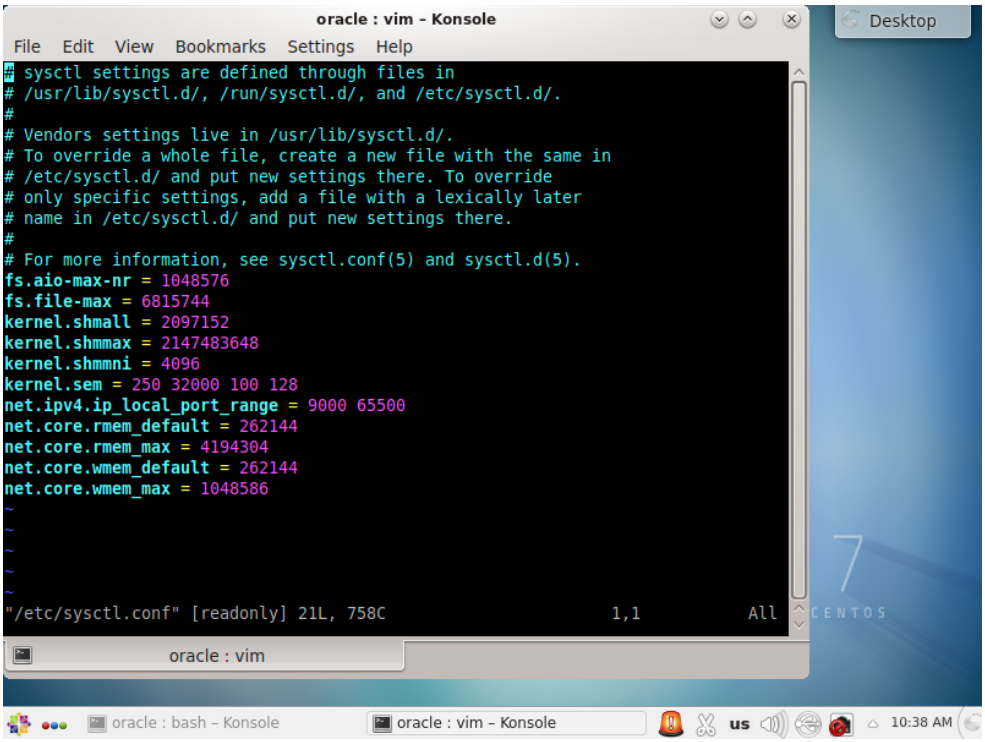

Figure 4.2: Setting Parameters

4.3 – Display all kernel parameter and apply the new values

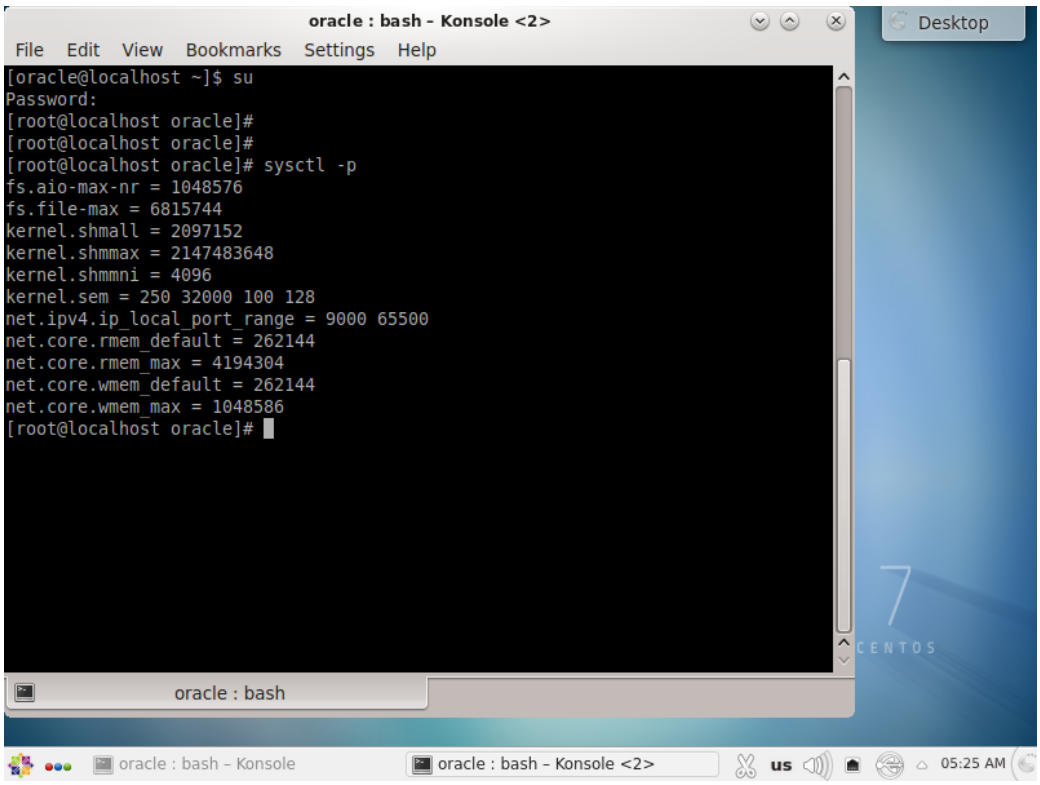

Figure 4.3

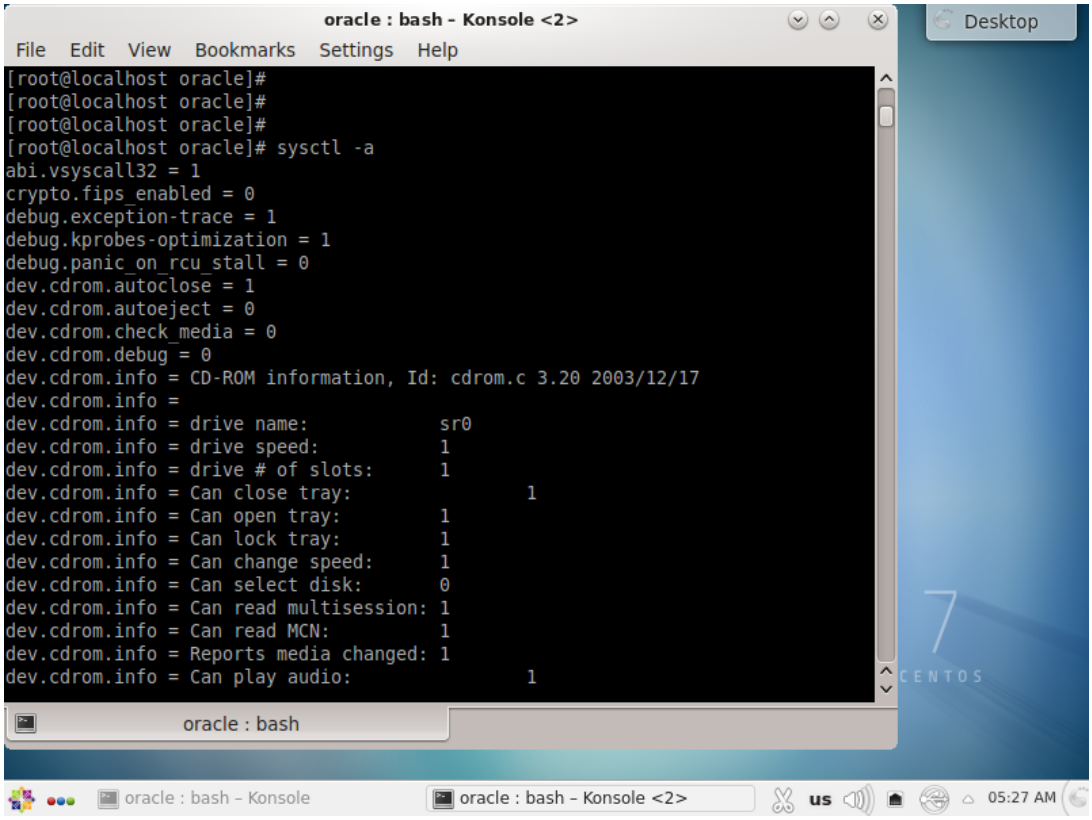

Figure 4.4

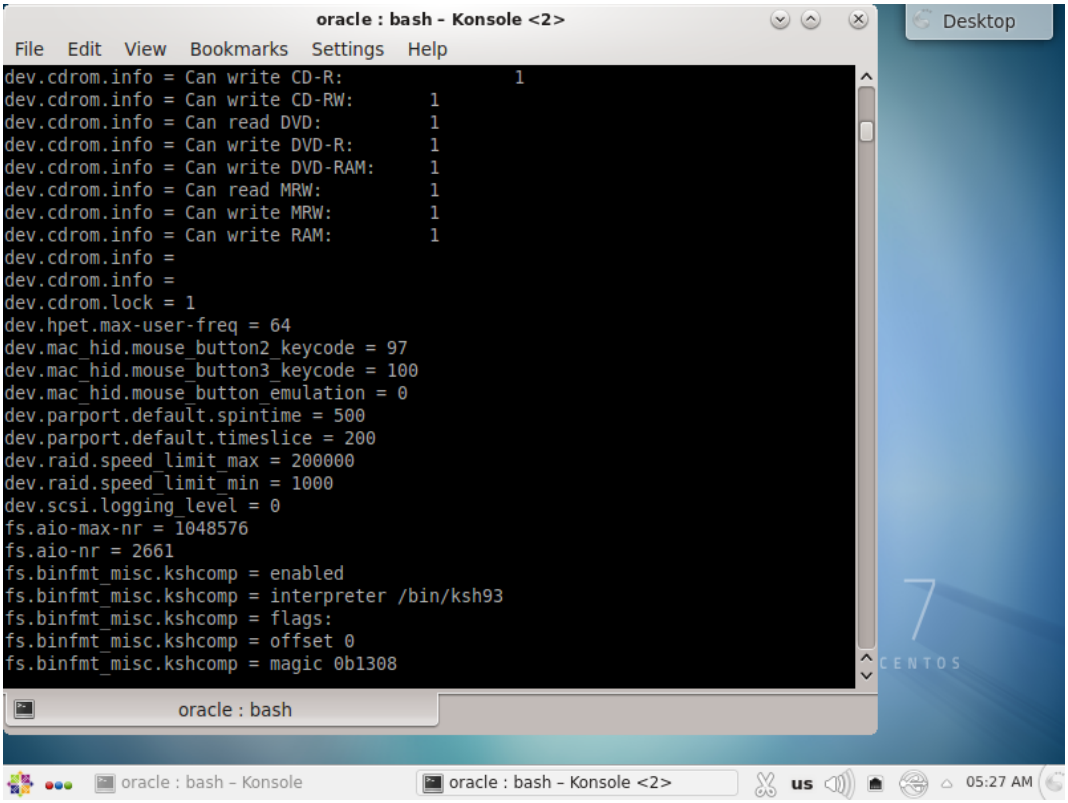

Figure 4.5

5. Edit limit.conf file “vim /etc/security/limits.conf” file (figure: 5.1)

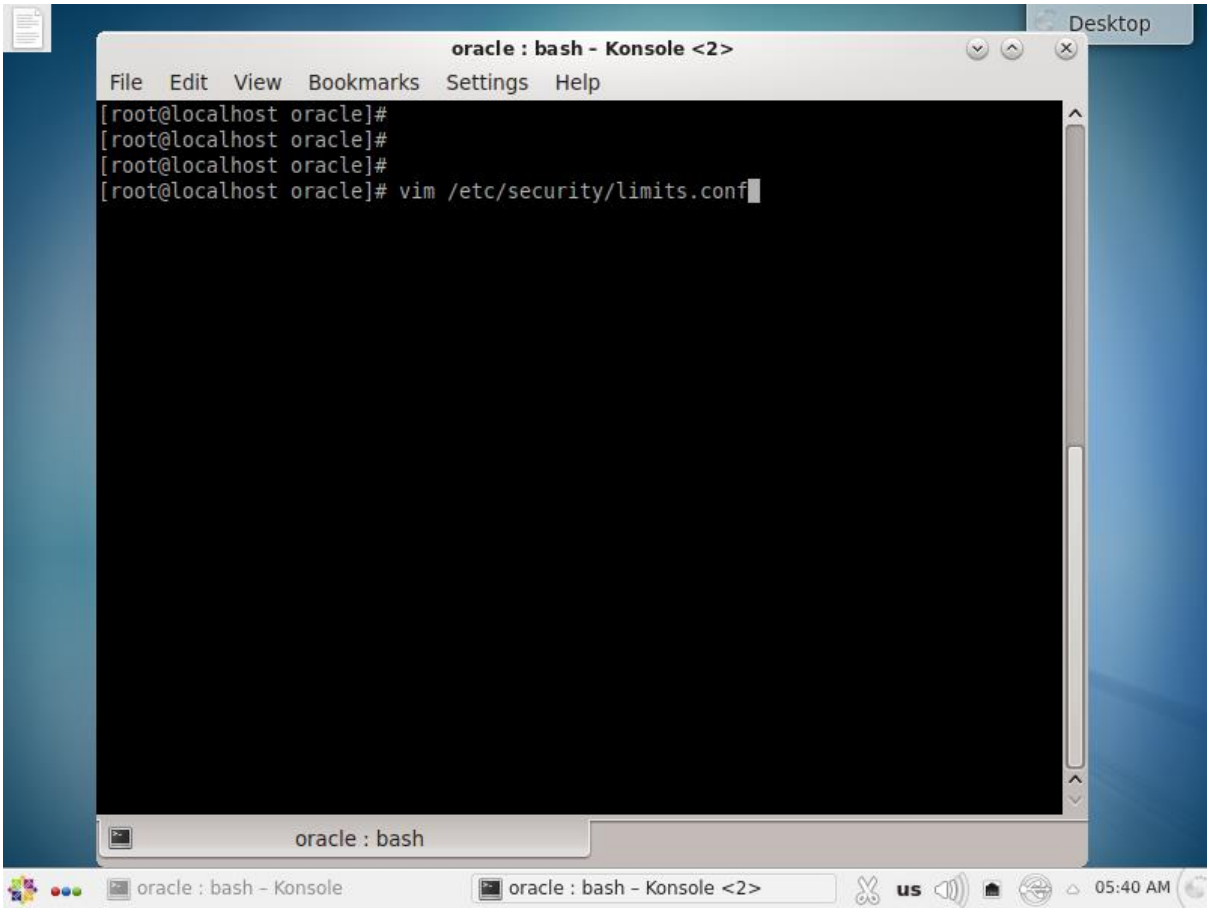

Figure 5.1

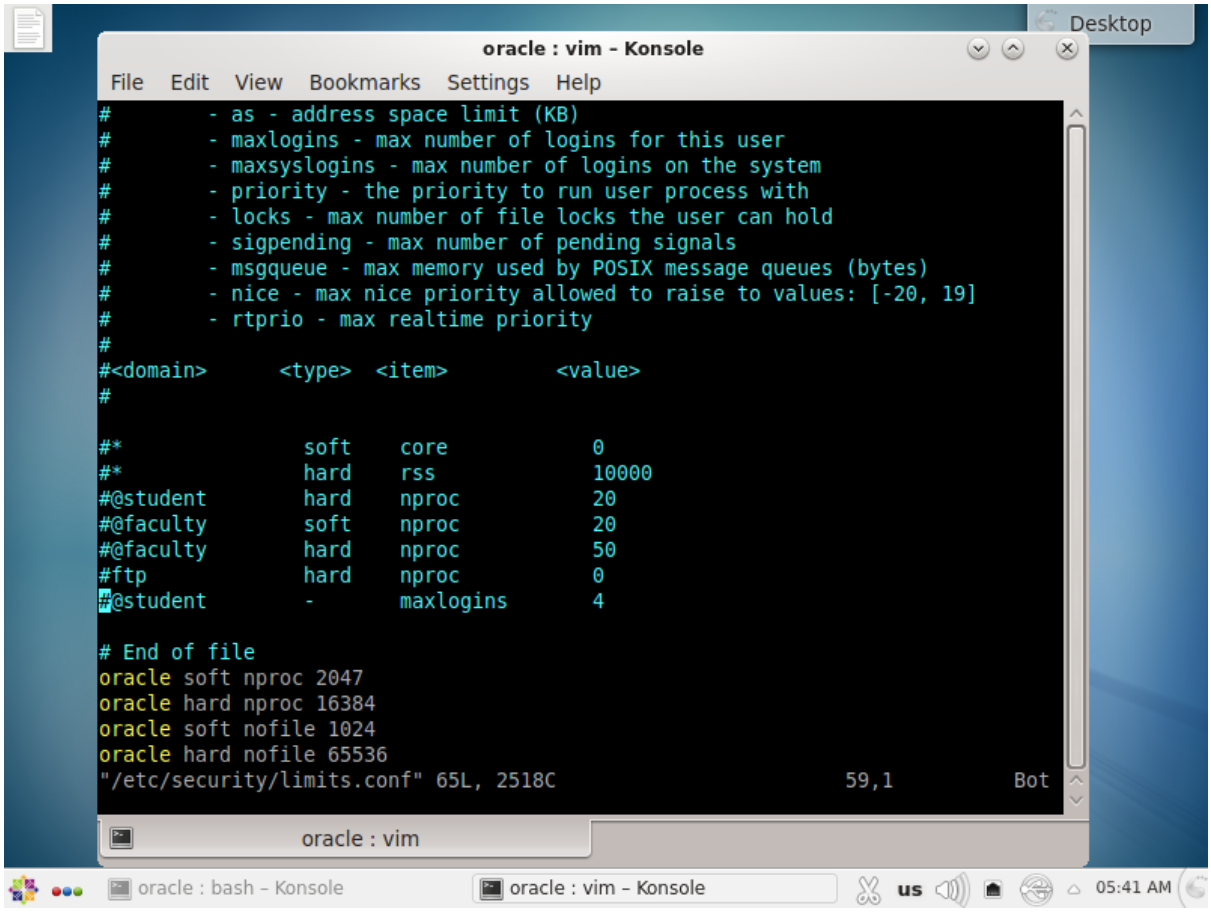
Desktop
oracle : vim – Konsole
File Edit View Bookmarks Settings Help
- as - address space limit (KB)
- maxlogins - max number of logins for this user
- maxsyslogins - max number of logins on the system
- priority - the priority to run user process with
- locks - max number of file locks the user can hold
- sigpending - max number of pending signals
- msgqueue - max memory used by POSIX message queues (bytes)
- nice - max nice priority allowed to raise to values: [-20, 19]
- rtprio - max realtime priority
#
#<domain>   <type> <item>   <value>
#
#*   soft   core   0
#*   hard   rss   10000
#@student   hard   nproc   20
#@faculty   soft   nproc   20
#@faculty   hard   nproc   50
#ftp   hard   nproc   0
#@student   -   maxlogins   4
End of file
oracle soft nproc 2047
oracle hard nproc 16384
oracle soft nofile 1024
oracle hard nofile 65536
"/etc/security/limits.conf" 65L, 2518C 59,1 Bot
oracle : vim
oracle : bash – Konsole
oracle : vim – Konsole
us
05:41 AM

Figure 5.2

6. Create necessary directories such as u01, u02

   Create “u01” and “u02” folders in root
   code: mkdir –p /u01 /u02

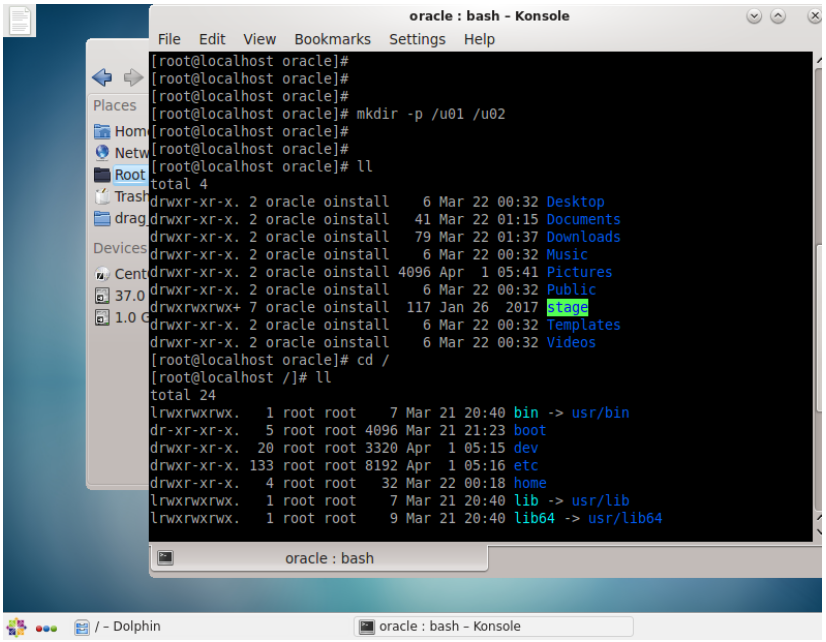

Figure 6.1

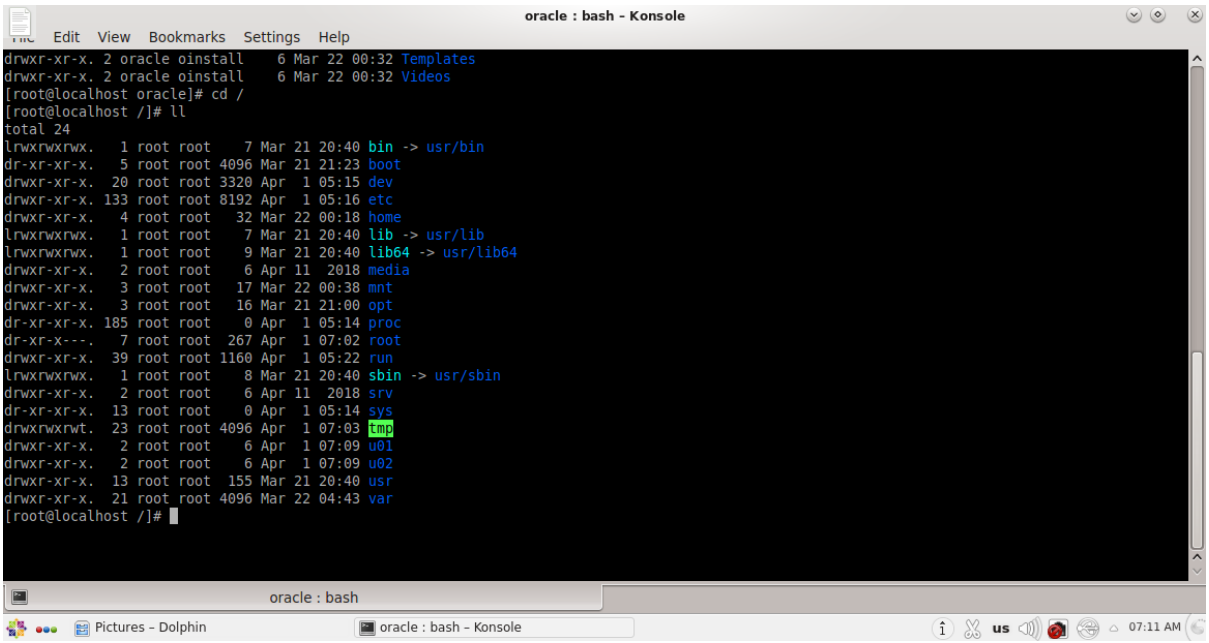

Figure 6.2

7. Assign necessary permissions for created directories

Code: chown -R oracle:oinstall /u01 /u02
chmod -R 775 /u01 /u02
chmod g+s /u01 /u02

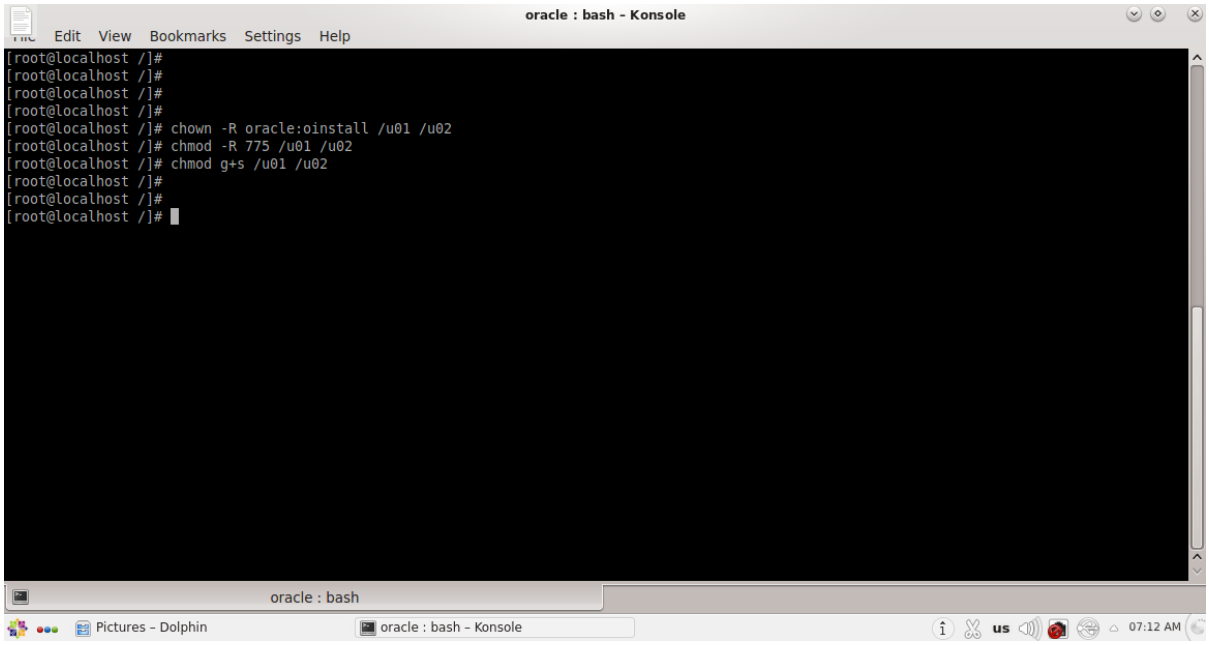

Figure 7