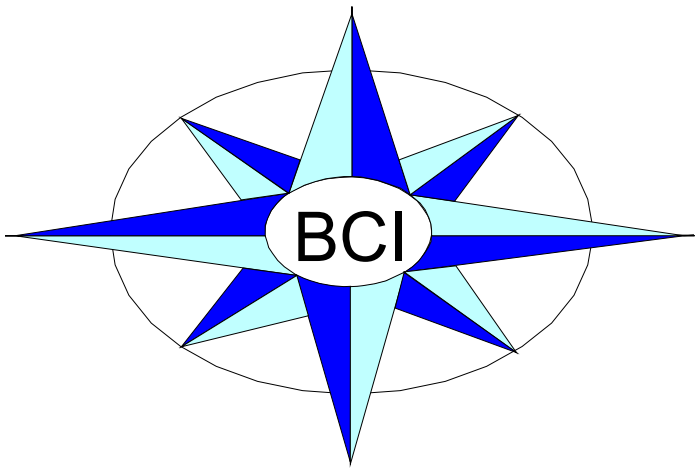
Evaluation 1
(Installing the Oracle Database Software)

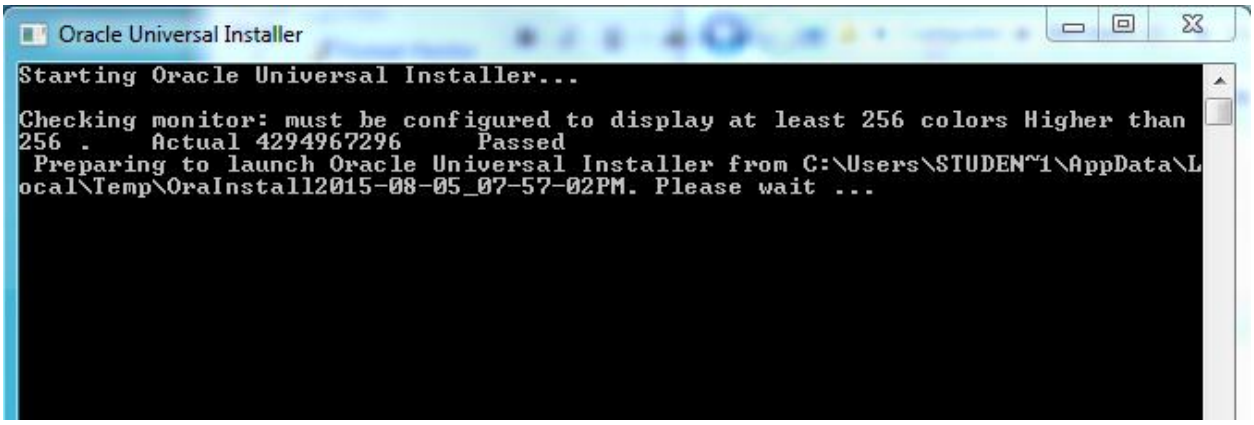


ORACLE DBA I PHASE I

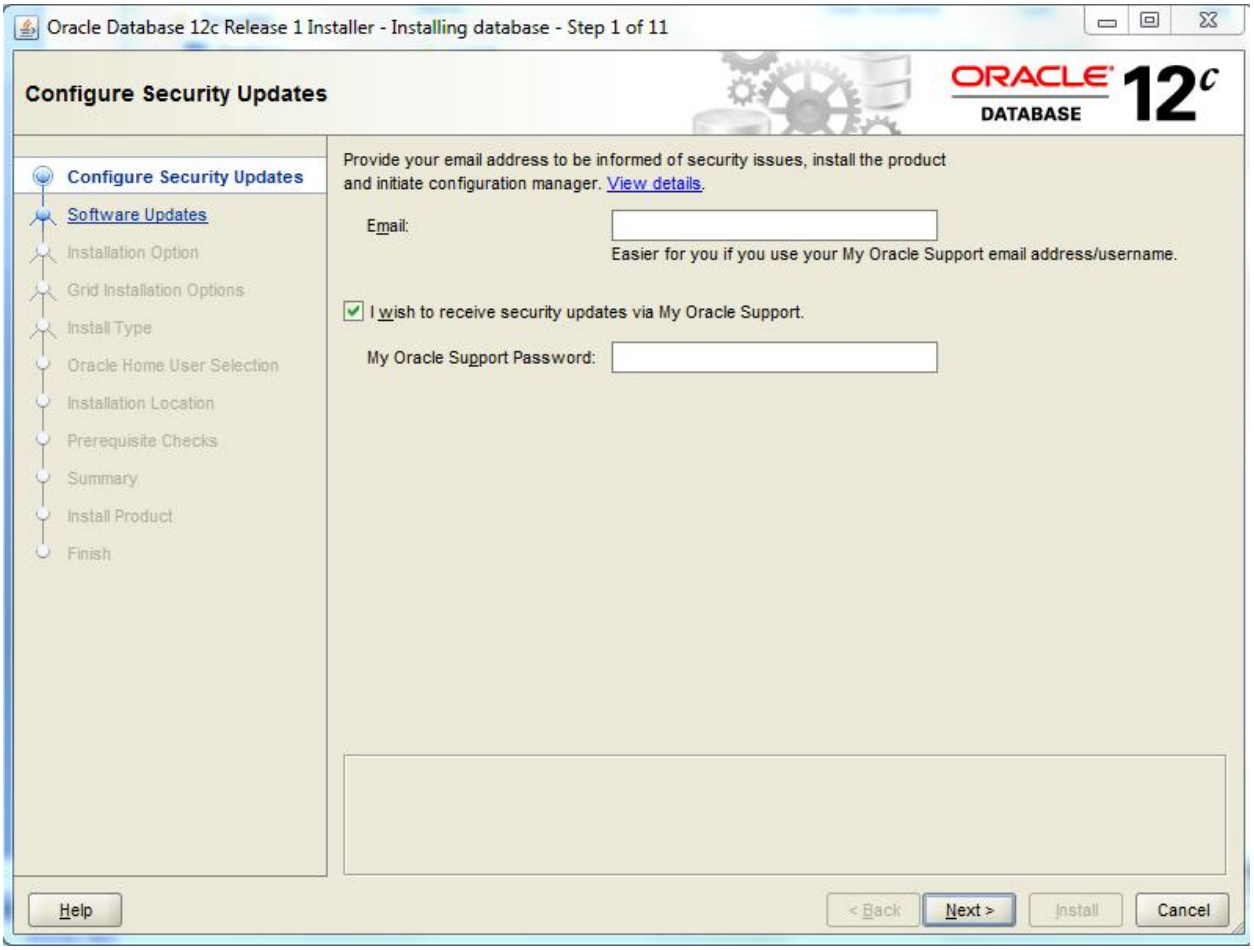
Evaluation 1
Installing the Oracle Database Software

DIRECTIONS: Follow the directions provided below for installing the Oracle database software utilizing the basic installation method. This is a graded (GO / NOGO) evaluation. You must successfully install the Oracle database software to receive a GO. Your instructor will review your work individually, provide individual feedback and make final determination on your mastery of this task. You will have 40 minutes to complete this evaluation. DO YOUR OWN WORK!

1. Go to the Oracle directory and click on setup.

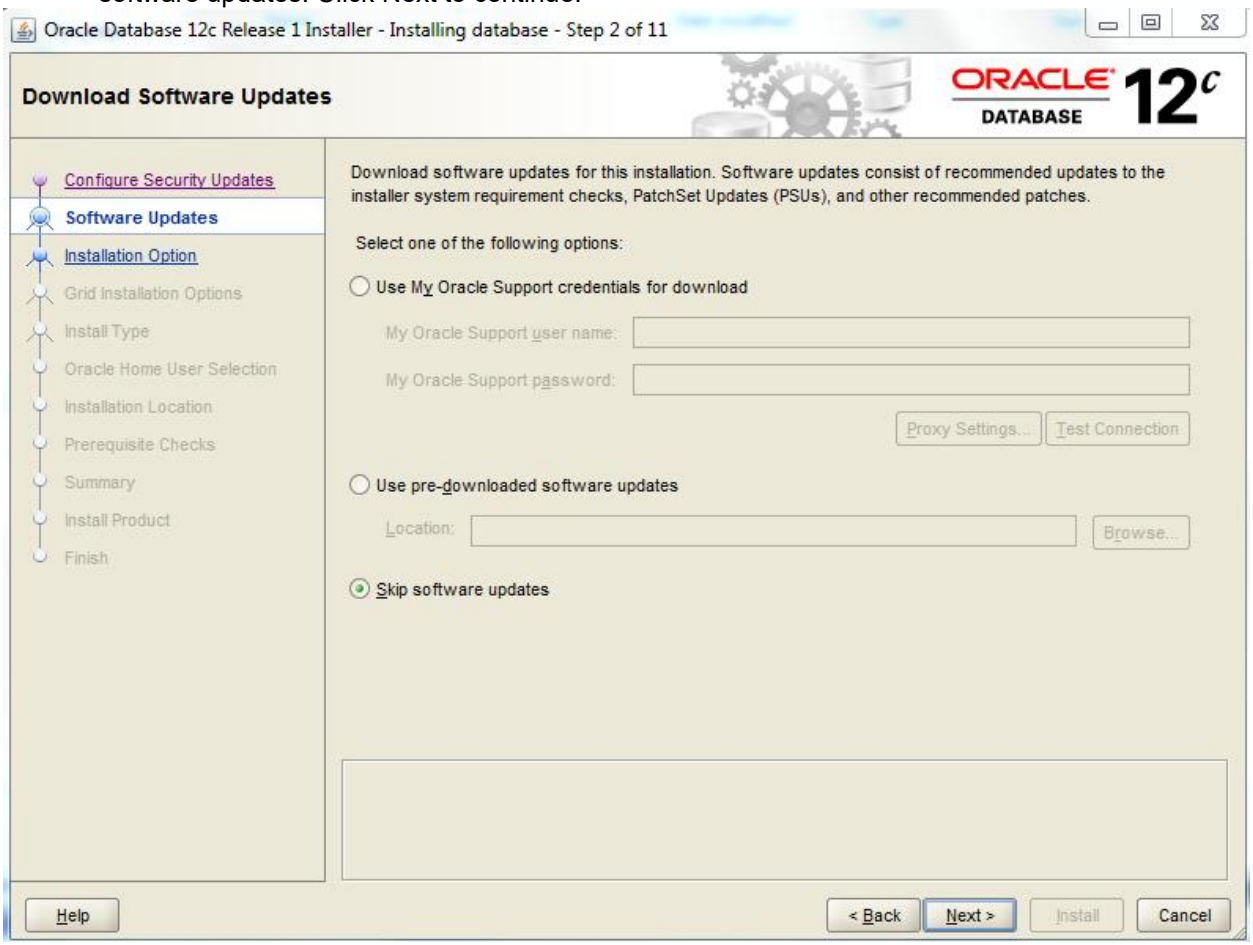


1. The Configure Security Updates window appears. This allows you to input your email address as well as key in your Oracle Support password in order to get automatic updates. In this class, we will deselect the security updates because it is a classroom test install. Click Next to continue.

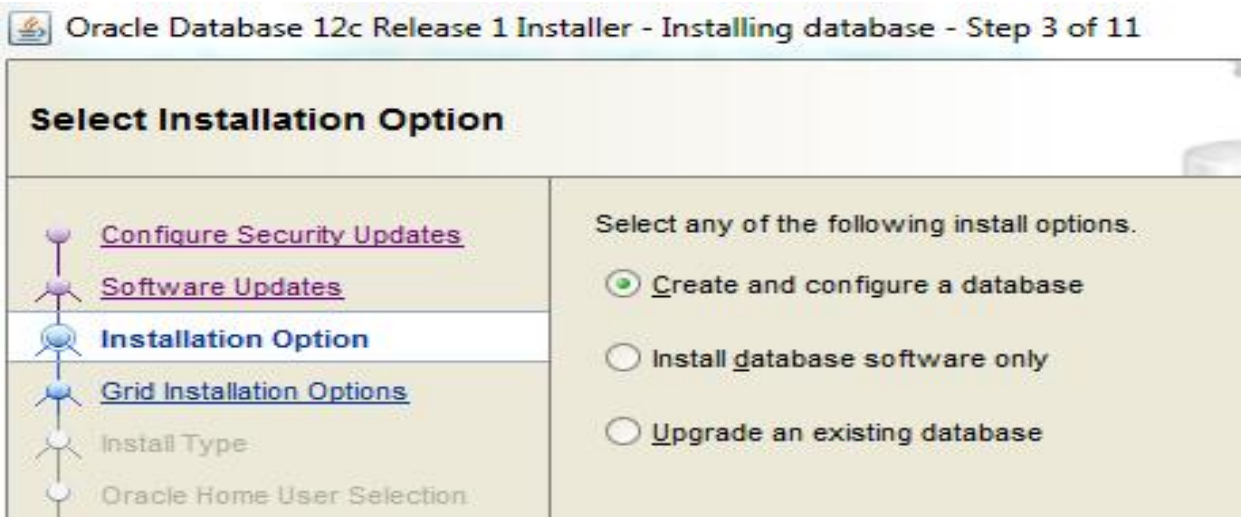


2. When you click on Next, you will be provided a dialogue screen which will warn you that you will not receive critical security updates as shown below. Click the Yes button.

3. The Next screen prompts deals with the Download of Software Updates. Typically, you would use either your Oracle Support Credentials or if your server manufacturer has sent you pre-downloaded software updates you would select these. This is a test install so will skip the software updates. Click Next to continue.

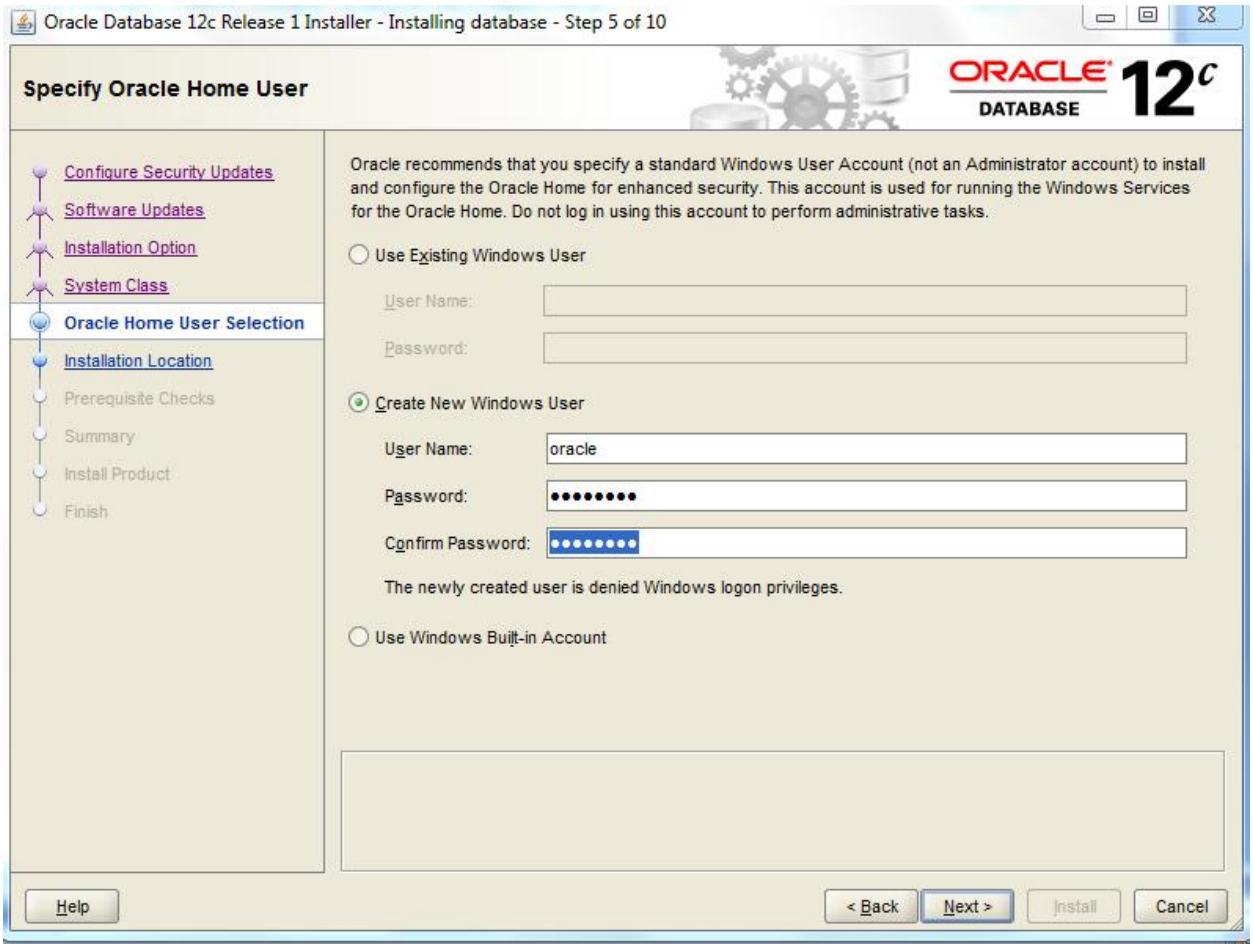


4. Select the **Create and Configure Database** option. Notice that you can just install the database software only or use the Oracle Universal Installer to upgrade an existing database. Select the Default option and Click Next.

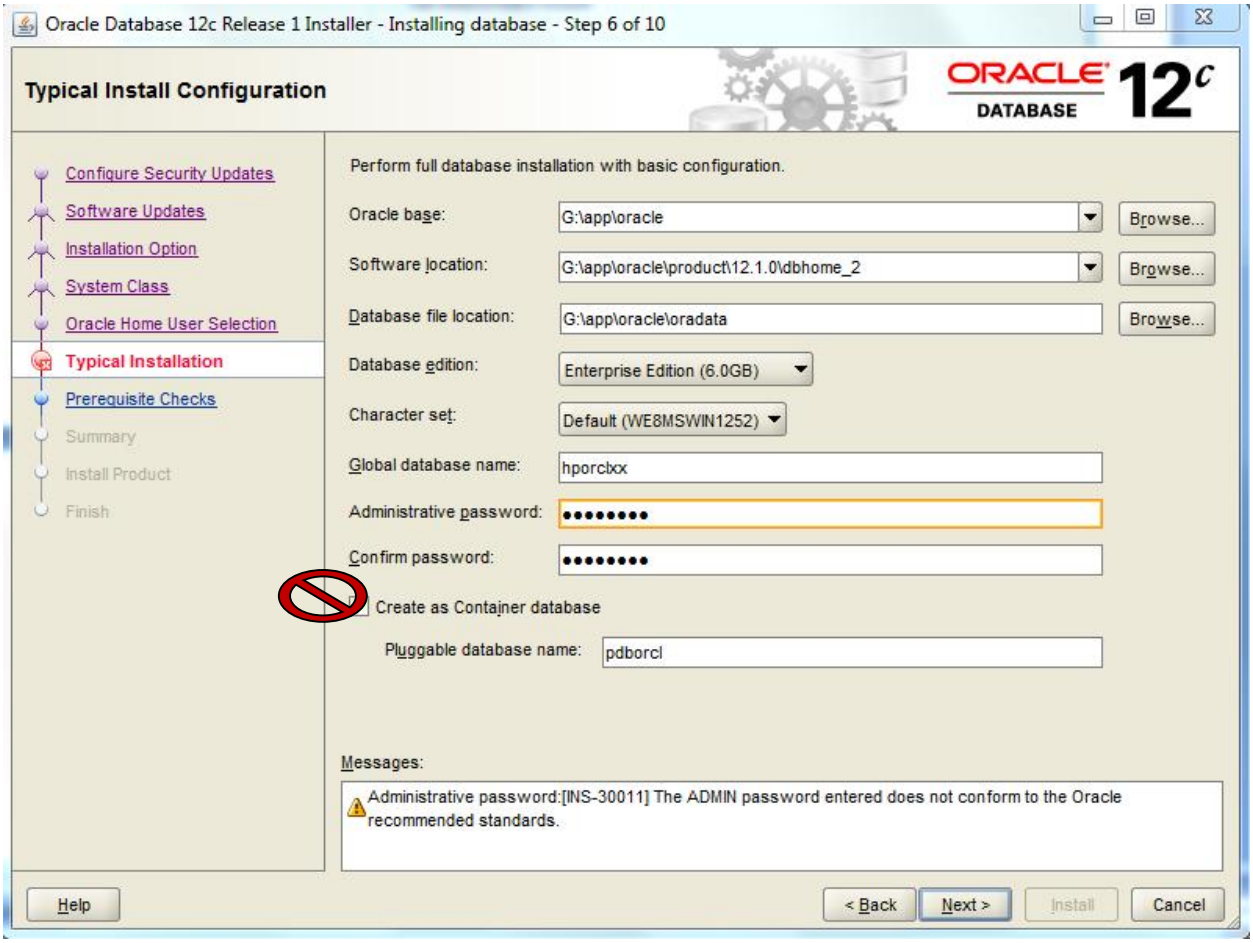


5. The next window allows you to select either a Desktop Class or a Server Class. Typically, databases at HP sites and bases will be small enough to specify Desktop class. However, your organization would specify Server class. Select the default option of Desktop Class and click Next.

6. In Oracle 12c database install for windows, it now requires you to create a new Oracle user for the database as shown. You can use an existing user but they cannot be administrators. This is not required in UNIX or Linux because you have already created this Oracle user. In Unix the oracle user is NOT root. The same holds true in Windows. As in Unix, we will provide a username of "oracle" and a password of "password".

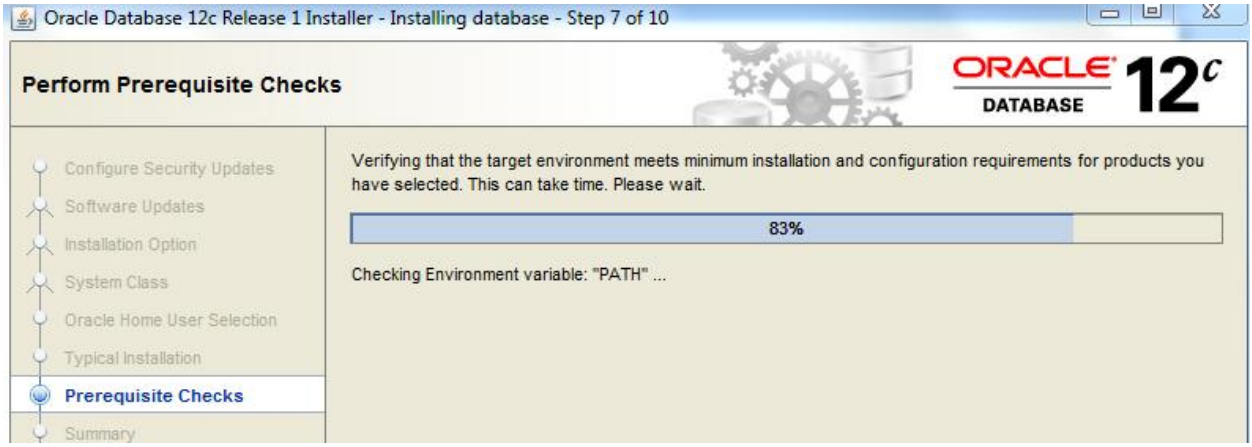


7. Specify the Oracle Home location, Installation Type, and Unix DBA Group if appropriate for your environment. For Windows, your directories must be available or shared for the installer.
The Name of the database in Unix will be orcl2 or a database name provided by the instructor or supply another database name appropriate for your environment. In Windows, we have already created an orcl database. In UNIX will use a directory of /oracle/product for the base and /oracle/product/12.x.0/dbhome_1 for the Software location (where x is your release number). For Windows the default location is fine. Select Enterprise Edition if it does not display and a default character set of WE8MSWIN1252 as shown. Supply the database password AS password. Make sure the Create as Container database is DESELECTED



8. Since we used a non-conforming password, you will be prompted to change the password as shown below. Click Yes to continue but remember you will provide a more complex password at your site.

9. Oracle will then perform checks to see if your system supports the Oracle Installation for 12c.



10. If using UNIX or LINUX we may not have had the Kernel configurations updated for Oracle 12c database. The following is a list of the kernel parameters which are required for a successful install. No need to worry about Windows as long as you have 8 gigabytes of memory.

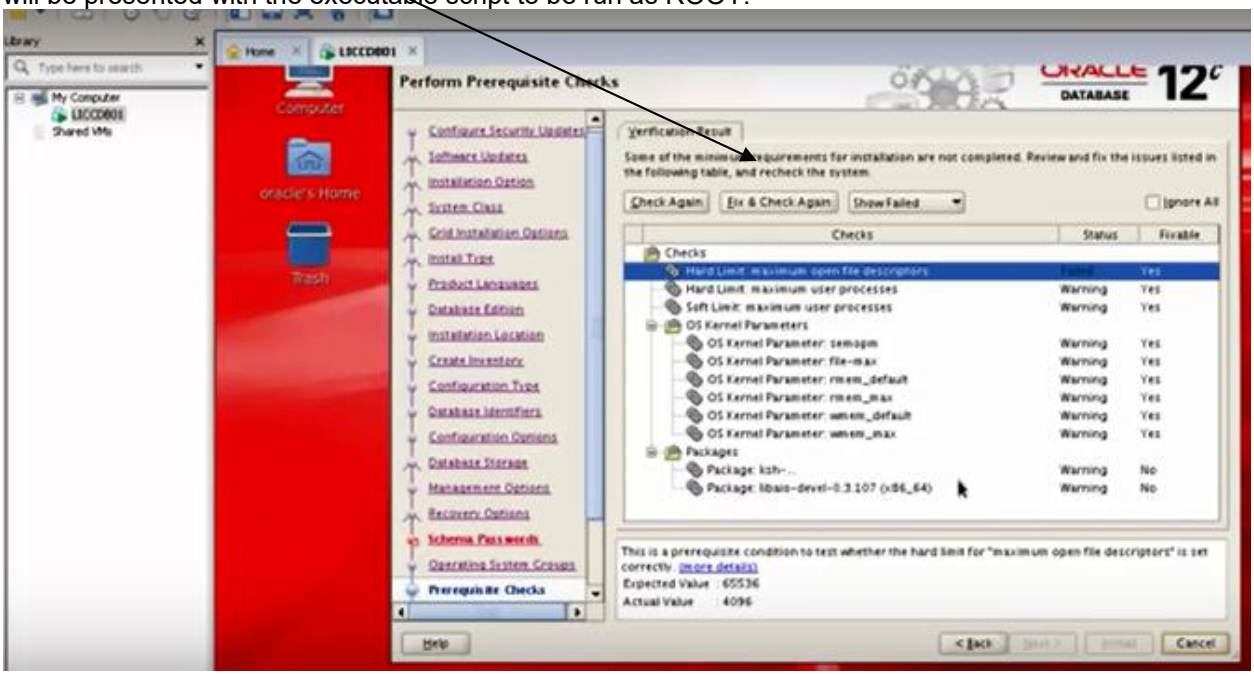
Configure Kernel Parameters

Verify that the kernel parameters shown in the following table are set either to the formula shown, or to values greater than or equal to the recommended value shown. The procedure following the table describes how to verify and set the values.

Note: The kernel parameter values shown in this section are recommended values only. For production database systems, Oracle recommends that you tune these values to optimize the performance of the system. See your operating system documentation for more information about tuning kernel parameters.

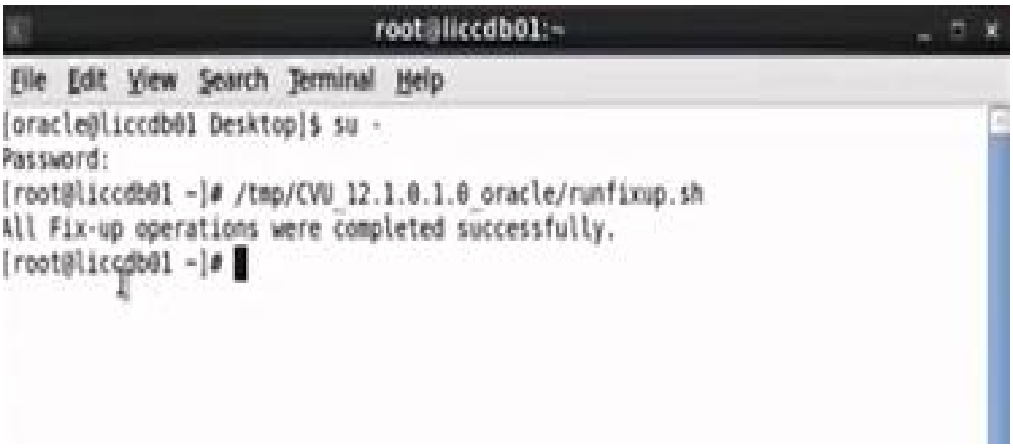
Parameter Recommended Formula or Value
ksi_alloc_max (nproc*8)
executable_stack 0
max_thread_proc 1024
maxdsiz 1073741824 (1 GB)
maxdsiz_64bit 2147483648 (2 GB)
maxssiz 134217728 (128 MB)
maxssiz_64bit 1073741824 (1 GB)
maxuprc ((nproc*9)/10)
msgmni (nproc)
msgtql (nproc)
ncsize (8*nproc+3072)
nfile (15*nproc+2048)
nflocks (nproc)
ninode (8*nproc+2048)
nkthread (((nproc*7)/4)+16)
nproc 4096
semmni (nproc)
semmns (semmni*2)
semmnu (nproc-4)
semvmx 32767
shmmax The size of memory or 1073741824 (0X40000000), whichever is greater.
Note:To avoid performance degradation, the value should be greater than or equal to the size of the available memory

11. The Oracle Installer will check to ensure that all parameters and memory are correctly sized. Should this check fail, the Oracle Universal Installer will provide you a screen which shows you all the parameters which need to be fixed. You can click on this button to fix the kernel parameters. When you click on this button (when it is highlighted and it will be in your first run) A dialogue box will be presented with the executable script to be run as ROOT.

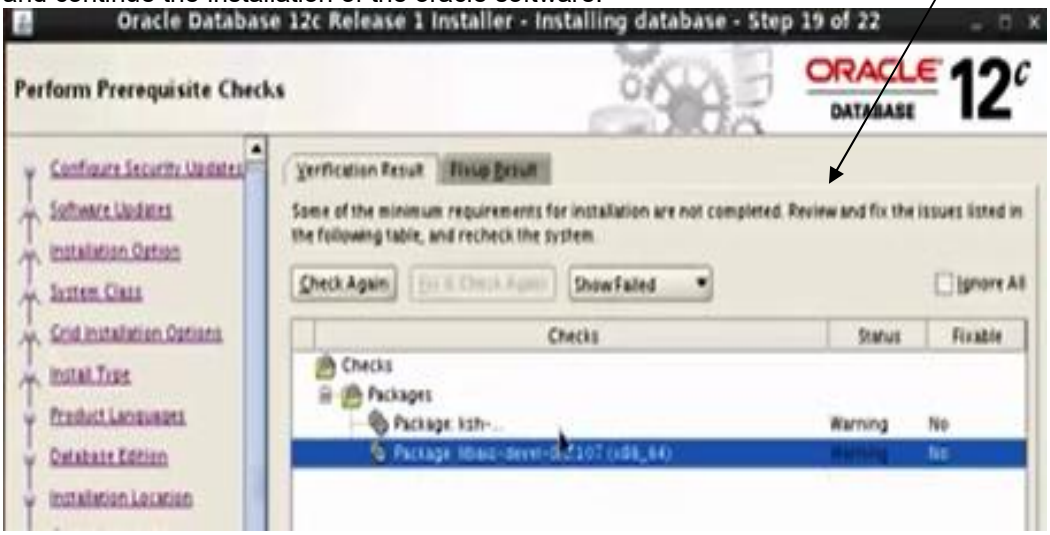


12. After logging in to a terminal window as ***root*** for the UNIX install, you will run the file shown below /tmp/CVU_12.1.0.1.0_oracle/runfixup.sh

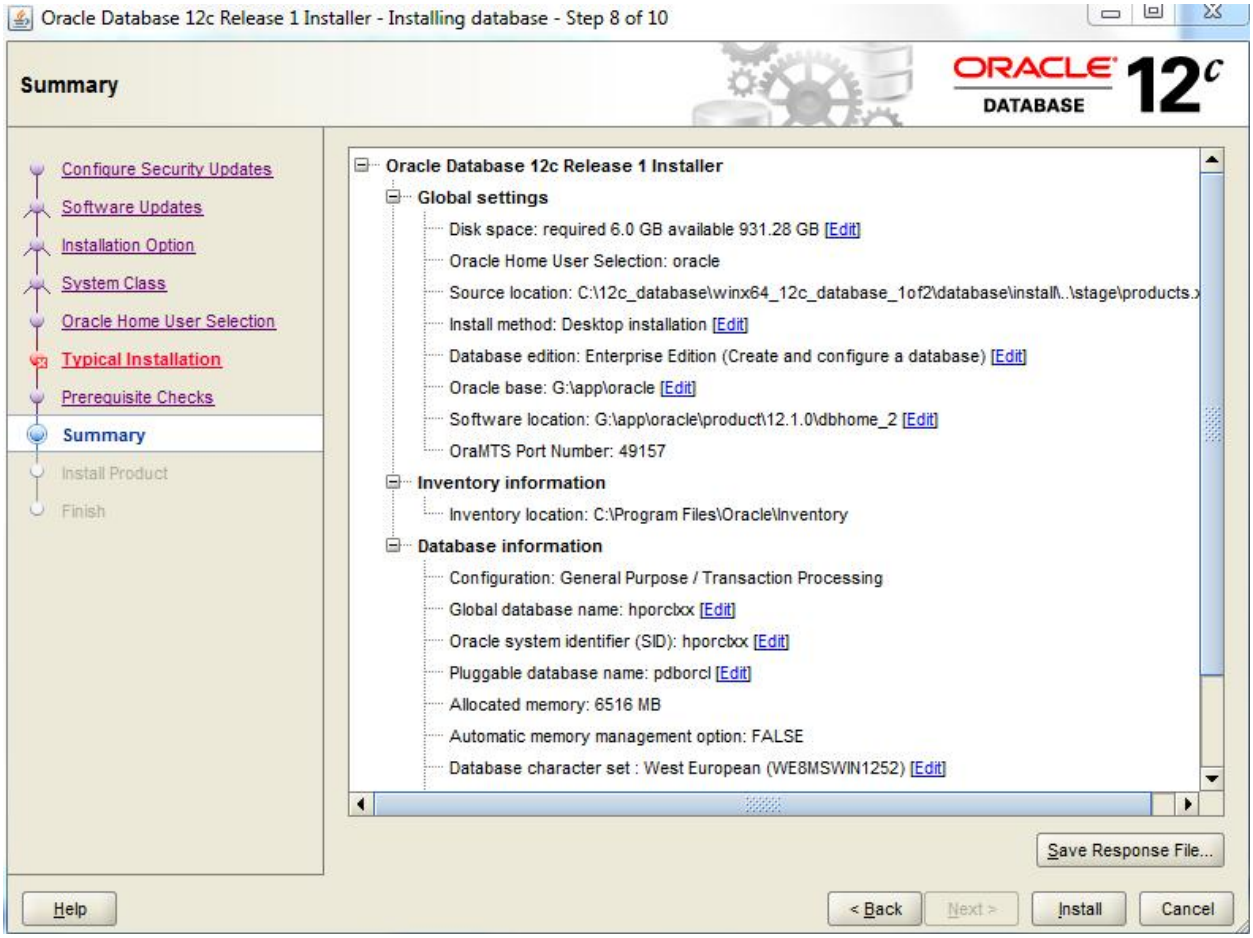
13. Below is the screen where from a terminal window as root, I run the script and it will automatically update the appropriate kernel parameters for me.



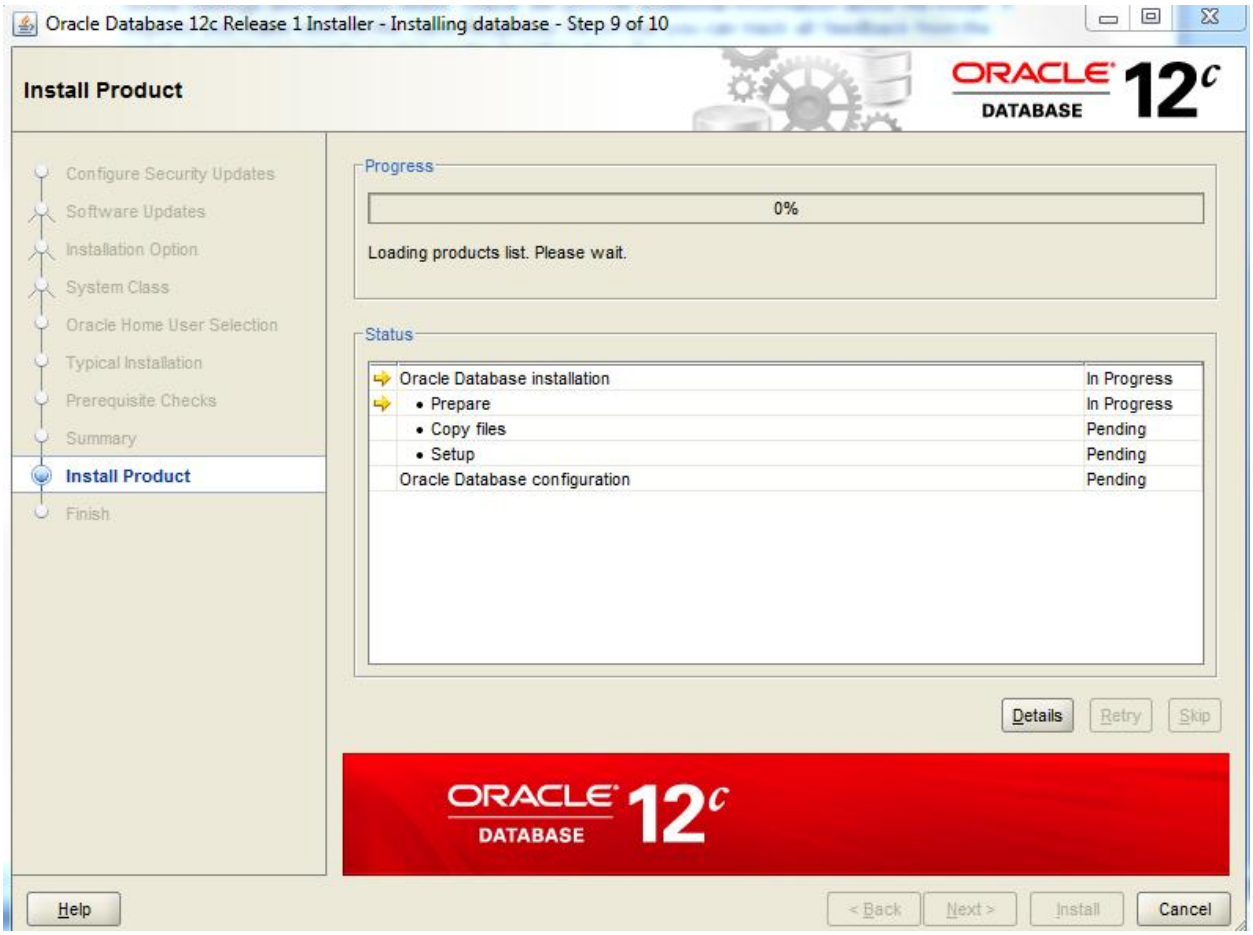
14. Upon exiting the terminal window above, we will click on the OK button and the Oracle Universal Installer will again check if our system passes all requirements. On our HP-UX boxes they will not but they are primarily warnings so for now, we can click on the "ignore all' check box and continue the installation of the oracle software.



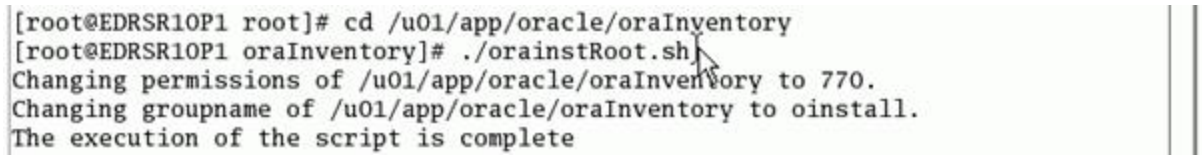
15. The next screen is our Summary screen which provides us the ability to check the different Global Settings and locations where Oracle will provide additional information about the install. If required you make click on the Save Response file so that you can track all feedback from the install. You are now ready to click on the Install button. Do so now.

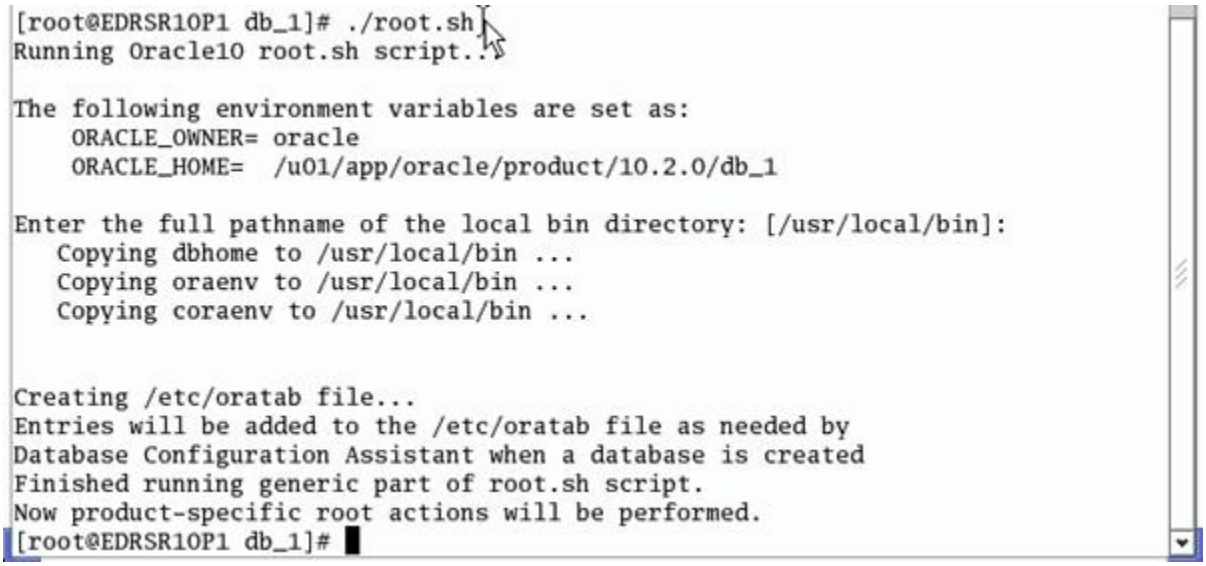


16. The next screen show the different steps of the Installation. When complete, the Oracle Universal Installer will provide you with a completion screen.

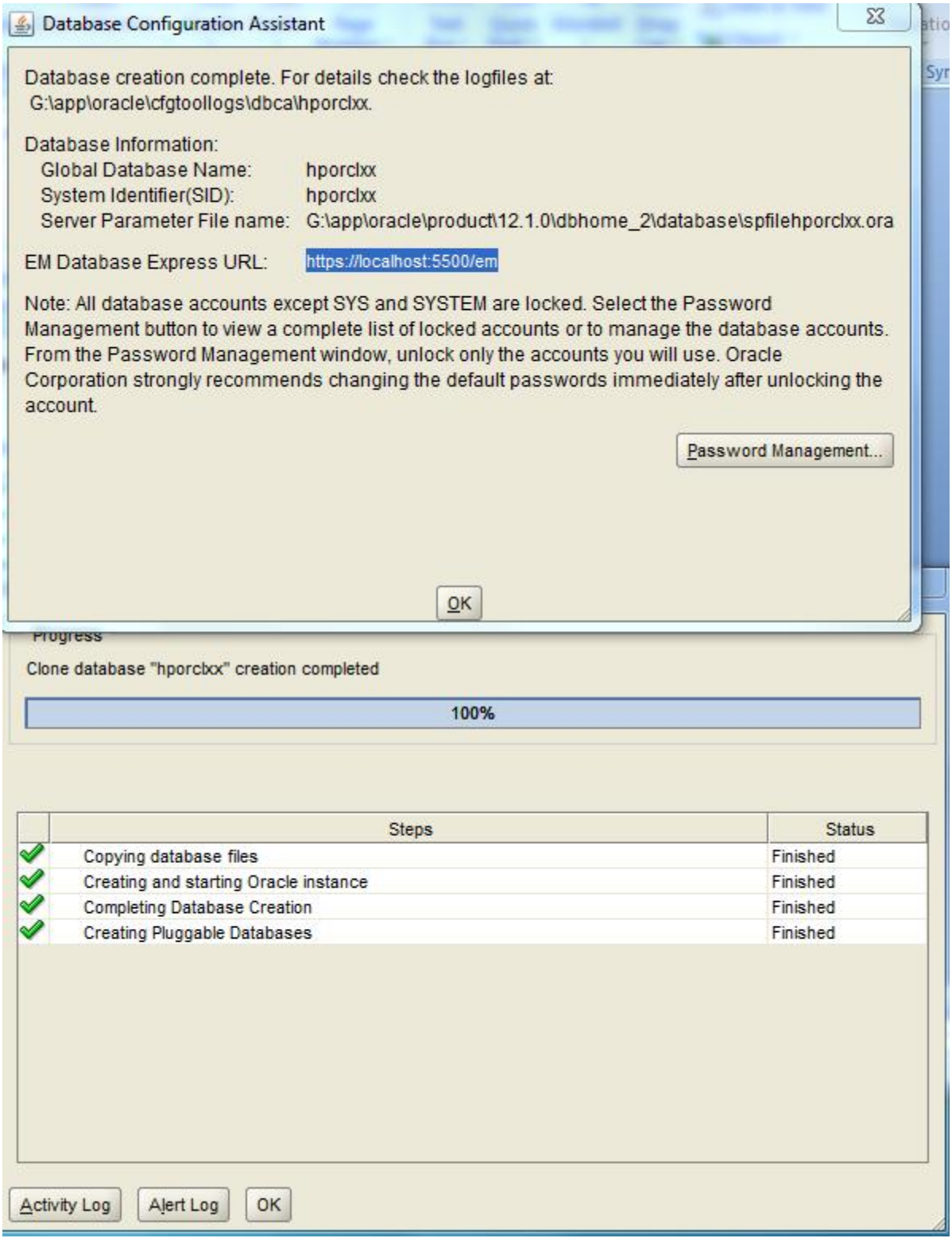


17. Before the Installation is complete in UNIX or LINUX, you will be prompted to run 2 scripts to provide the oracle user with proper privileges to manage the database and files created by the database install. Run these as root.
Open a new terminal window, log in as **root**, and execute the **orainstRoot .sh** and **root .sh** scripts as described in the dialog page. When the scripts finish, return to the **Oracle Universal Installer** page and click **OK**. (The following screen will appear which indicates you have assigned appropriate paths.)





18. When completed the Oracle Universal Installer will provide you with a completion screen and you will click on the OK button twice to complete the Oracle Install and the Database Install. NOTE: You will want to write down the EM Database Express URL:. We will use this URL later in the course. Note: You will be creating an orcl2 database.



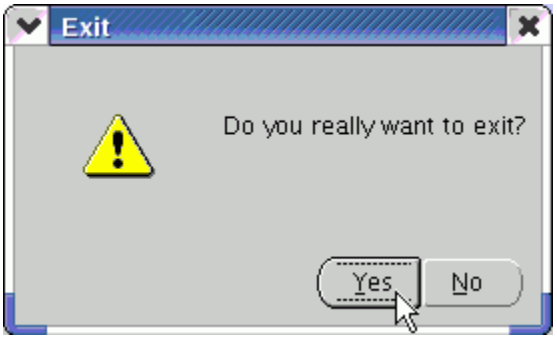
Open a new terminal window, log in as **root**, and execute the **orainstRoot .sh** and **root .sh** scripts as described in the dialog page. When the scripts finish, return to the **Oracle Universal Installer** page and click **OK**. (The following screen will appear which indicates you have assigned appropriate paths.)

```
[root@EDRSR10P1 root]# cd /u01/app/oracle/oraInventory
[root@EDRSR10P1 oraInventory]# ./orainstRoot.sh
Changing permissions of /u01/app/oracle/oraInventory to 770.
Changing groupname of /u01/app/oracle/oraInventory to oinstall.
The execution of the script is complete
```

```
[root@EDRSR10P1 db_1]# ./root.sh
Running Oracle10 root.sh script...

The following environment variables are set as:
    ORACLE_OWNER= oracle
    ORACLE_HOME=  /u01/app/oracle/product/10.2.0/db_1

Enter the full pathname of the local bin directory: [/usr/local/bin]:
   Copying dbhome to /usr/local/bin ...
   Copying oraenv to /usr/local/bin ...
   Copying coraenv to /usr/local/bin ...


Creating /etc/oratab file...
Entries will be added to the /etc/oratab file as needed by
Database Configuration Assistant when a database is created
Finished running generic part of root.sh script.
Now product-specific root actions will be performed.
[root@EDRSR10P1 db_1]#
```

19. The End of Installation page appears with important information about Web application port numbers. At this time ask for your instructor to review your progress. Once the instructor has validated your installation click **Exit** to exit.

1. At this time the Exit window appears. **Click Yes**. You have now completed the installation of Oracle software and database creation.



THIS ENDS EVALUATION 1.