# **10. Introduction to Oracle Database Administration. Install Oracle database software and create a database.**

# **1.1. Introduction to Oracle Database Administration.**

The Oracle Database Management Systems course is designed to teach students how to perform the day-to-day administrative tasks required of an Oracle Database Administrator (DBA). No prior knowledge (or experience) in database management is required.

This course is specifically aimed at the following groups of Oracle database users:

- developers who want to acquire certain knowledge and skills in a short time;

- administrators who manage certain servers;

- Database administrators who manage Oracle databases for SMEs.

## **Relational databases.**

Oracle Database is a relational database management system (RDBMS). A relational database uses links or two-dimensional tables to store information. The relational database model consists of three components: a set of objects or relationships (tables), a set of operators for managing tables and rules for data completeness.

For example, information about all employees in a company can be stored. In a relational database, several tables (such as a table of employees, a table of departments and a table of salaries) can be created to store different data for specific employees.

# Oracle instance and database: Overview.

The Oracle instance contains memory structures known as the System Global Area (SGA) and Oracle background processes (Figure 10.1).



Figure 10.1. Oracle instance and Oracle database

The Oracle database contains data files, backup and redo action archive files, and control files.

Communication with the Oracle database server can be done via SQL (fig. 10.2.). The SQL statement is entered by the user or executed in a program. The statement is processed and the data is returned to the user.

Common tasks performed by a database administrator:

- installing and updating software for creating databases;
- performing database and software upgrades;
- starting and shutting down the user model (instance);

• management of database storage structures. consumer and security management;

• management of objects of the scheme (the structure of the database);

#### SQL statement is entered.



Figure 10.2. Access to SQL database.

• backup and recovery when needed;

• proactive monitoring of the database and taking preventive or corrective action, if necessary;

- monitoring and setting up the software;
- Diagnose and report bugs in Oracle support structures.

In a small to medium database environment, only one person may be assigned to perform these tasks. In large enterprise environments, the work is often divided between several administrators, each with a specific area (for example, the database security administrator or the database setup expert).

Tools used to administer Oracle Database:

- Oracle Universal Installer (OUI);
- Database Configuration Assistant (DBCA);
- Database Upgrade Assistant (DBUA);
- Oracle Net Manager;
- Oracle Enterprise Manager, SQL \* Plus;
- Recovery Manager (RMAN);
- Data Pump;
- SQL \* Loader.

## Tools used to administer Oracle Database.

The following tools are used for installation and upgrade:

• Oracle Universal Installer (OUI) - installs Oracle Database software and options. It can automatically start the Database Configuration Assistant to create a database.

• The Database Configuration Assistant (DBCA) creates a database of templates provided by Oracle. Another option is to create a user database. It allows you to copy a pre-configured database.

• The Database Upgrade Assistant (DBUA) guides the administrator through the upgrade of the existing database to a new version of Oracle.

Oracle Net Manager can be used to configure the user (Oracle Net) network.

The following tools are used to manage a specific Oracle instance and database:

• Oracle Enterprise Manager: Oracle Enterprise Manager combines a graphical console, agents, common services, and tools to provide an integrated and comprehensive platform for managing Oracle product management systems. After installing the Oracle database software, creating or upgrading a database, and configuring the network, Oracle Enterprise Manager can be used as a single user database management interface. In addition to providing a web-based user interface for executing SQL commands, it seamlessly interacts with other Oracle components that are used to administer a database (such as Recovery Manager and Scheduler). Enterprise Manager is used for all administrative management tasks.

• *SQL* \* *Plus*: SQL \* Plus is the commonly used command line interface for managing a user database.

• *Recovery Manager (RMAN)*: RMAN is an Oracle tool that provides a complete solution for backing up and restoring a database as a whole or database files.

• *Data Pump*: Data Pump allows high-speed data transfer from one database to another. For example, you can export a table and import it into another database.

• *SQL* \* *Loader*: The SQL \* Loader utility allows you to load data from an external file into an Oracle database. This is one of several Oracle utilities that can be used to load data into database tables.

**1.2.** System requirements for installing Oracle database software and creating a database.

Using Oracle Universal Installer.

- Oracle Universal Installer (OUI) allows administrators to:
- Review of Oracle software installed on a specific machine
- installation of new Oracle software;

- Remove Oracle software that is no longer scheduled for use

• OUI provides online help.

The installation program automatically sets all the operating system environment variables that the Oracle database server requires for its operation.

It is good practice to set these variables in advance to facilitate the installation process.

The platform-specific Oracle Database Installation Guide is used for detailed information about all operating system configuration tasks that must be performed before installing Oracle Database software.

For UNIX:

When installing Oracle Database 11g Release 2 (11.2) (Table 10.1):

- minimum: 1 GB RAM
- Recommended: 2 GB RAM or more
- to determine the amount of RAM, enter the command # grep MemTotal / proc / meminfo

If the RAM size is smaller than the required size, more memory must be installed before proceeding.

Table 10.1. SWAP file:

Available RAM	Recommended SWAP file size
1-2 GB	1.5 times the amount of RAM
2-16 GB	Equal to the amount of RAM
More than 16 GB	16 GB

To determine if the system architecture can run specific software, the following command is entered:

# uname –m

This command shows the processor type. Verify that the processor architecture conforms to the version of Oracle installation software. If the expected output is not observed, incompatible software cannot be installed on this system.

answer: # x86\_64 To determine the size of the configured SWAP space, the following command is entered:

# grep SwapTotal / proc / meminfo Answer: SwapTotal: XXXXXX kB

If necessary, refer to the operating system documentation for information and instructions on how to configure additional swap space.

To determine the available RAM and swap space, enter the following command:

# free

Oracle recommends taking a few values for available RAM and swap space before finalizing a value. This is because the available RAM and replacement space continue to change depending on the user's interaction with the computer.

Starting with Oracle Database 11g, the automatic memory management feature requires more shared memory (/ dev / shm) and file descriptors. Shared memory must be at least as large as MEMORY\_MAX\_TARGET and MEMORY\_TARGET for each instance of Oracle on this computer.

To determine the amount of shared memory available, enter the following command:

# df -h / dev / shm /

The following are the disk space requirements for installing Oracle Database 11g Release 2 (11.2) (Table 10.2.):

At least 1 GB of disk space in the / tmp directory

To determine the amount of available disk space in the / tmp directory, enter the following command:

# df -h / tmp

If less than 1 GB of free disk space is available in the / tmp directory, do one of the following:

• Unnecessary files from the / tmp directory are deleted to meet the free disk space requirement.

• TMP and TMPDIR environment variables are set when the oracle user environment is set.

To determine the amount of free disk space in the system, the following command is entered:

# df -h

Table 10.
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Type of installation	Software file requirements
Enterprise Edition	4,7 GB
Standard Edition	4,6 GB
Type of installation	Data file requirements
Enterprise Edition	1,7 GB
Standard Edition	1,5 GB

If you want to configure automated backup, the recovery area requires additional disk space - either in a file system or in a group of disks in Oracle Automatic Storage Management.

Oracle Universal Installer performs system checks to verify that it meets the listed requirements. To ensure that these checks pass, the requirements are checked before starting the Oracle Universal Installer.

The certification matrix of the My Oracle Support website for the most up-todate list of certified hardware platforms and operating system versions is reviewed:

## https://support.oracle.com/

For the needs of this course in database management systems, a virtual machine Oracle Linux 7.6 64b with VMware workstation 10.0.2 / or newer / will be created, installed on Windows 10 Enterprise 64b.

## 1.3. Installing Oracle Linux 7.6 64b.

Oracle Linux 7 is about to be installed on VMware Workstation 10. Oracle Linux, formerly known as Oracle Enterprise Linux, is a Linux distribution based on Red Hat Enterprise Linux (RHEL).

Oracle Linux can be downloaded through Oracle's e-delivery service or from various sites and can be downloaded at no cost. Commercial technical support is available through the Oracle Oracle Linux support program.

The latest version of Oracle Linux from Oracle E-delivery / Oracle Software Delivery Cloud / is downloaded. The current version is Oracle Linux 7 Update-6.

Open VMware Workstation (12) -> File -> New virtual machine-> Standard installation / Typical / (fig. 10.3.). Forward.



Figure 10.3. Start the VMware Workstation.

Select the installation disk / image file and view the path to Oracle Linux 7 - ISO (fig. 10.4.). Forward.

If VMware does not recognize the type and version of the installation, you must manually set the type of installation (fig. 10.5.).

New Virtual Machine Wizard	$\times$
Guest Operating System Installation A virtual machine is like a physical computer; it needs an operating system. How will you install the guest operating system?	
Install from:	
◯ Installer disc:	
No drives available $\sim$	
● Installer disc image file (iso):	
C:\Program Files (x86)\VMware\VMware Workstation\V ~ Browse	
Could not detect which operating system is in this disc image. You will need to specify which operating system will be installed.	
$\bigcirc$ I will install the operating system later.	
The virtual machine will be created with a blank hard disk.	
Help < Back Next > Cancel	

Fig. 10.4. Selecting an installation disc.

New Virtual Machine Wizard	×
Select a Guest Operating System Which operating system will be installed on this virtual machine?	
Guest operating system Microsoft Windows Linux Novell NetWare Solaris VMware ESX O Other	
Version Oracle Enterprise Linux 64-bit	~
Help < Back Next > C	Cancel

Fig. 10.5. VMware. Type of installation.

Enter the name of the new virtual machine and view the place where it can be saved (fig. 10.6.). Forward.

New Virtual Machine Wizard	×
Name the Virtual Machine What name would you like to use for this virtual machine?	
Virtual machine name:	
O Linux 76	
Location:	
F:\Virtual Machines\O Linux76	Browse
The default location can be changed at Edit > Preferences.	
< Back Next >	Cancel

Fig. 10.6. VMware. Location of the installation.

The maximum disk size is set and it is possible to choose whether to partition the virtual disk, it is chosen to save it as a single file (fig. 10.7.). Forward.

In the next window, the hardware settings are adjusted to meet the requirements for installing Oracle Database 11g R2, Customize Hardware is selected (fig. 10.8.).

New Virtual Machine Wizard	×		
Specify Disk Capacity How large do you want this disk to be?			
The virtual machine's hard disk is stored as one or more files on the host computer's physical disk. These file(s) start small and become larger as you add applications, files, and data to your virtual machine.			
Maximum disk size (GB): 40.0			
Recommended size for Oracle Enterprise Linux 64-bit: 20 GB			
Store virtual disk as a single file			
○ Split virtual disk into multiple files			
Splitting the disk makes it easier to move the virtual machine to another computer but may reduce performance with very large disks.			
Help < Back Next > Cancel			

Fig. 10.7. VMware. Select installation in one file.

w Virtual Machine \	Wizard	2
Ready to Create Click Finish to c Enterprise Linu	<b>Virtual Machine</b> reate the virtual machine. Then you can install Oracle x 64-bit.	
The virtual machine w	vill be created with the following settings:	
Name:	Oracle Enterprise Linux 64-bit	~
Location:	F:\Virtual Machines\Oracle Enterprise Linux 64-bit	
Version:	Workstation 10.0	
Operating System:	Oracle Enterprise Linux 64-bit	
Hard Disk:	40 GB	
Memory:	3076 MB	
Network Adapter:	Bridged (Automatic)	
Other Devices:	4 CPU cores, CD/DVD, USB Controller, Printer, Sound	~
Customize Hardwa	are	

Fig. 10.8. VMware. Choice to change the parameters of the virtual machine.

The following are the hardware settings. According to the standard requirements, the required memory for this virtual machine is 2 GB or 2048 MB, 2 processor cores with 2 threads each. It is good that the RAM is at least 3 GB - 3076 MB, 2 processor cores with 2 threads (fig. 10.9. And Fig. 10.10.).

For this version of Linux to work seamlessly with Oracle databases from the practical experience of administrators, the minimum amount of RAM must be at least 2.5 GB or 2560 MB.

The system that will be configured in this course has 2560 MB RAM (or more).

Hardware that will not be used should be removed from the virtual machine architecture.



Fig. 10.9. VMware. Configuring the hardware of the virtual machine - RAM.

Device Summary Memory 3 GB Processors 4 Number of processors: 2 Number of cores per processor: 2 Number of cores per processor: 2 Total processor cores: 4 Number of cores per processor: 4 Number of cores per processor: 2 Total processor cores: 4 Virtualization engine Preferred mode: Automatic Disable acceleration for binary translation Disable acceleration for binary translation Virtualize Intel VT-x/EPT or AMD-V/RVI Virtualize CPU performance counters
Add Remove

Fig. 10.10. VMware. Configuring the hardware of the virtual machine - processor.

When configuring the network adapter - "Network adapter", Bridged is selected for connection to the physical device of the computer (fig. 10.11.).

Some devices may not be needed for future use of the system, they are removed from the configuration.

After configuring the hardware, return to the waiting window and select Finish, with which the virtual machine is created (fig. 10.12.).

Even after creating with the Edit virtual machine settings option, it is possible to edit the hardware parameters of the system, this should be done very carefully.

Hardware	×
Device       Summary         Memory       3 GB         Processors       4         New CD/DVD ( Using file F:\PROGRAMS\ORACLE         Network Adapter       Bridged (Automatic)         Sound Card       Auto detect         Printer       Present         Display       Auto detect	Device status Connected Connect at power on  Network connection  Pelicate physical network to the physical network Pelicate physical network connection state NAT: Used to share the host's IP address Host-only: A private network shared with the host Custom: Specific virtual network NMnet0 LAN segment: LAN Segments Advanced
	Close Help

Fig. 10.11. VMware. Configuring the network adapter.

he virtual machine v	will be created with the following settings:	
Location:	F:\Virtual Machines\OracleLinux76_64	1
Version:	Workstation 10.0	÷
Operating System:	Orade Enterprise Linux 64-bit	
Hard Disk:	40 GB	
Memory:	3076 MB	
Network Adapter:	NAT	
Other Devices:	4 CPU cores, CD/DVD, USB Controller, Printer, Sound	
		-

Fig. 10.12. VMware. Review and finalization.

OracleLinux76_64 - VMware Work	station		
<u>File Edit View VM Tabs I</u>	Help		
▶ -   🖧   🏷 🛇 ଔ			
Library X C Type here to search My Computer Olinux7 OracleLinux76_64 Shared VMs	<ul> <li>Power on this virt</li> <li>Power on this virt</li> <li>Edit virtual machin</li> <li>Devices</li> <li>Memory</li> <li>Processors</li> <li>Hard Disk (SCSI)</li> <li>CD/DVD (IDE)</li> <li>Network Adapter</li> <li>USB Controller</li> <li>Sound Card</li> <li>Printer</li> <li>Display</li> <li>Description Type here to enter a civitual machine.</li> </ul>	IX76_64 ual machine ne settings 3 GB 4 40 GB Using file F:\PRO NAT Present Auto detect Present Auto detect	
			<ul> <li>Virtual Machine Details</li> <li>State: Powered off</li> <li>Configuration file: F:\Virtual Machi</li> <li>Hardware compatibility: Workstation 10.0</li> </ul>

Fig. 10.13. VMware. Start the virtual machine.

Next is the installation of Oracle Linux on the virtual machine thus created. For this purpose, the machine is started in the menu of VMware Worstation (fig. 10.13.). Start the virtual machine. Select Install Oracle Linux 7.6 and choose Enter (fig. 10.14.).



Fig. 10.14. Launch Oracle Linux Installation.

Select the language for the installation, leave it in English and select continue (fig. 10.15).

When starting the installation program, several basic settings are configured, before that you may have to wait a while to recognize the configuration so far and load the menus in the installation program (fig. 10.16).



Fig. 10.15. Installing Oracle Linux. Choice of language for the installation process.



Fig. 10.16. Installing Oracle Linux. Configuration recognition.

## 1. Date and time zone:



Fig. 10.17. Installing Oracle Linux. Select date and time zone.

The region of Europe, the city of Sofia, the keyboard layout are selected and the date and time are checked. Then select Done (fig. 10.17.).

2. Software Selection of the installation:

		ION SUMMARY DATE & TIME Europe/Sofia timezone LANGUAGE SUPPORT English (United States)	8	ORACLE LINUX 7.  US  KEYBOARD English (US)	6 INSTALLATION Help! (F1)
	SOFTWAR	E INSTALLATION SOURC	E	<u>S</u> OFTWARE : Minimal Install	SELECTION
		INSTALLATION DESTIN Automatic partitioning sel			
SOFTWARE S	Please cor ELECTION	nplete items marked with this	We won't	touch your disks until you ng to the next step. ORACLE LINUX 7.	6 INSTALLATION
Base Environ Minimal Ins Basic functi Infrastruct Server for 0 File and Pri File, print, a Basic Web Server for 1 Virtualizati Minimal virt Server with Server for 0 with a GUI.	ment stall onality. ure Server operating network int Server and storage server Server serving static and ion Host ualization host. h GUI operating network	: infrastructure services. for enterprises. dynamic internet content. : infrastructure services,	Add-Ons for S Java Platfor Java support Platforms. KDE The KDE Plas graphical use system icons KDE applicati Large Systel Performance Load Balanci Mainframe A Tools for acc MariaDB Da The MariaDB packages. Network File Enables the s Performance PostgreSQL	elected Environment m for the Oracle Linux Serve ana Workspaces, a highly- r interface which includes and desktop widgets, and ons. ms Performance support tools for large sy ter Ig support for network tra- trabase Server SQL database server, and e System Client aystem to attach to netwo e Tools gnosing system and applic problems. Database Server	er and Desktop configurable a panel, desktop, I many powerful /stems. affic. ing resources. associated rk storage. ation-level

Fig. 10.18. Installing Oracle Linux. Choice of software packages.

Software selection. Select Server with GUI and select the following add-ons for the selected environment (fig. 10.18.):

- Development Tools;
- Virtualization Tools;
- System Administration Tools.

Confirmed with Done.

3. Installation Destination.

Click on I will configure partitioning and then Done (fig. 10.19.).

INSTALLATION DESTINATION Done	ORACLE LINUX 7.6 INSTALLATION
Device Selection	
Select the device(s) you'd like to install to. They will be left unto "Begin Installation" button.	ouched until you click on the main menu's
Local Standard Disks	
40 GiB	
VMware, VMware Virtual S	
sda / 40 GiB free	
	Disks left unselected here will not be touched.
Specialized & Network Disks	
Add a disk	
	Disks left unselected here will not be touched.
Other Storage Options	
Partitioning	
Automatically configure partitioning.     I will configure partitioning.	
I would like to make additional space available.	
Full disk summary and boot loader	1 disk selected; 40 GiB capacity; 40 GiB free Refresh

Fig. 10.19. Installing Oracle Linux. Installation Destination.

Select Standard Partition (fig. 1.20).

Select the "+" sign to create a new disk partition with a capacity of 35700 MB as / and mount this partition by selecting Add mount point (fig. 10.21.).



Fig. 10.20. Installing Oracle Linux. Destination - Standard Partition.

MANUAL PARTITIONING				0	RACLE LINUX 7.6 I	NSTALLATION Help!
<ul> <li>New Oracle Linux 7.6 Instat You haven't created any mount pp Linux 7.6 installation yet. You cal</li> <li>Click here to create them an</li> <li>Create new mount points by cl New mount points will use the for scheme:</li> <li>Standard Partition</li> <li>tandard Partition</li> <li>tandard Partition</li> </ul>	llation pints for your Oracle r: ADD A NEW MC More custom after creating Mount Point: Desired Capacity:	DUNT POIR ization optic the mount / 37500  Cancel	<b>VT</b> point below. Add mount pc	e v bint	points for your Oracle to view their details h	Linux 7.6 ere.
1 storage device selected						Reset All

FIG. 10.21. Installing Oracle Linux. Create a new disk partition.

New Oracle Linux 7.6 Installation SYSTEM / 36.72 GiB 3 sda1	sda1 Mount Point: / Desired Capacity: 36.72 GiB	Device(s): VMware, VMware Virtual S (sda) Modify
	Device Type: Standar  En File System: ext4 Refo	<b>сгүрt</b> rmat
	Label:	Name:

The file system type is selected to be ext4 (fig. 10.22).

Fig. 10.22. Installing Oracle Linux. File system selection.

Add a Swap Mount point for the rest of the disk space and click on Done (fig. 10.23. and fig.10.24.).



Fig. 10.23. Installing Oracle Linux. SWAP selection.



Fig. 10.24. Final state of disk space.

Accept Changes is selected.

4. Network & Host Name

The network adapter turns on. The Host Name is set, by default the host name is **localhost.localdomain** (fig. 10.25.).

NETWORK & HOST NAME	ORACLE LINUX 7.6 INSTALLATIO
Ethernet (ens33) Intel Corporation 82545EM Gigabit Ethernet Controller (	Connected
	Hardware Address 00:0C:29:BB:05:87
	Speed 1000 Mb/s
	IP Address 194.141.51.150
	Subnet Mask 255.255.255.0
	Default Route 194.141.51.1
	DN5 194.141.51.3 194.141.51.10
+ -	Configure
Host name: localhost.localdomain	Apply Current host name: localhost.localdoma

Fig. 10.25. Network adapter setup.

The network settings are configured by Configure..., then saved by selecting Save and ending these settings by selecting Done on the output window (fig. 10.26.).

General Ethern	iet 802	2.1X Security	DCB	Proxy	IPv4 Settings	IPv6 Settings
1ethod: Automatic	(DHCP)					•
Additional static ad	dresses					
Address		Netmask		Gate	way	Add
						Delete
						Delete
						Delete
Additional DNS serv	ers:					Delete
Additional DNS serv	'ers:					Delete
Additional DNS serv	vers:					Delete
Additional DNS serv Additional search do DHCP client ID:	rers:					Delete

Fig. 10.26. Configure network settings.

Finish with the configurations and select Begin Installation from the main installation window (fig. 10.27.).



Fig. 10.27. Start the installation process.

5. Create a password for the super user root - Olinux76 (fig. 10.28.).

	CONFIGUR	ATION			ORACLE L	INUX 7.6	INSTAL	LATION Help!
	USER SET	TINGS						
T	<b>⊙</b> ⊐	ROOT PASSWOI Root password is	RD set		USER User	CREATIC	ON be creat	ed
	Installing linu	x-firmware (360/1685	5)					
	$\widehat{\mathbf{P}}$	Oracle Lin all channe	ux: All errata a Is at the same	and upda time, wi	tes free th or wi	ly availa thout a	able ac subsci	ross ription.
		Excercise of the local data						
BOOTBASSW	000				OPACIE		C INICTA	LATION
ROOT PASSWO	DRD				ORACLE	LINUX 7.	6 INSTA	LLATION Help!
ROOT PASSWO	DRD The root acco	unt is used for adminis	stering the system. E	inter a passw	ORACLE	LINUX 7.	6 INSTA	Help!
ROOT PASSWO	The root acco Root Password	unt is used for adminis d:	stering the system. E	inter a passw	ORACLE	LINUX 7.	6 INSTA	Help!
ROOT PASSWO	The root accor Root Password	unt is used for adminis d:	stering the system. E	inter a passw	ORACLE	root user.	6 INSTA	Help!
ROOT PASSWO	DRD The root acco Root Password Confirm:	unt is used for adminis d:	stering the system. E	inter a passw	ORACLE us ord for the	LINUX 7.	6 INSTA	Help!
ROOT PASSWO	The root acco Root Password Confirm:	unt is used for adminis d:	stering the system. E	inter a passw	ORACLE us ord for the	root user. Good	6 INSTA	Help!
ROOT PASSWO	The root acco Root Password Confirm:	unt is used for adminis d:	stering the system. E	inter a passw	ORACLE us ord for the	CINUX 7.	6 INSTA	Help!
ROOT PASSWO	The root accor Root Password Confirm:	unt is used for adminis d:	stering the system. E	inter a passw	ORACLE us ord for the	CONTRACTOR	6 INSTA	Help!
ROOT PASSWO	DRD The root acco Root Password Confirm:	unt is used for adminis d:	stering the system. E	inter a passw	ORACLE us ord for the	root user.	6 INSTA	Help!
ROOT PASSWO	DRD The root acco Root Password Confirm:	unt is used for adminis d:	stering the system. E	inter a passw	ORACLE us ord for the	root user.	6 INSTA	Help!
ROOT PASSWO	DRD The root acco Root Password Confirm:	unt is used for adminis d:	stering the system. E	inter a passw	ORACLE us ord for the	INUX 7.	6 INSTA	Help!
ROOT PASSWO	DRD The root acco Root Password Confirm:	unt is used for adminis d:	stering the system. E	inter a passw	ORACLE us ord for the	LINUX 7.	6 INSTA	Help!
ROOT PASSWO	DRD The root acco Root Password Confirm:	unt is used for adminis d:	stering the system. E	inter a passw	ORACLE ord for the	LINUX 7.	6 INSTA	Help!
ROOT PASSWO	DRD The root acco Root Password Confirm:	unt is used for adminis d:	stering the system. E	inter a passw	ORACLE us ord for the	LINUX 7.	6 INSTA	Help!
ROOT PASSWO Done	DRD The root acco Root Password Confirm:	unt is used for adminis d:	stering the system. E	inter a passw	ORACLE ord for the	INUX 7.	6 INSTA	Help!

Fig. 10.28. Create a password for the super user root.

6. Create an oracle user from User Creation (fig. 10.29.).

CREATE USER	ORACLE LINUX 7.6 INSTALLATI التق us العليم المراجع	ON »!
Full name	oracle	
User name	oracle	
	<ul> <li>Tip: Keep your user name shorter than 32 characters and do not use spaces.</li> <li>Make this user administrator</li> <li>✓ Require a password to use this account</li> </ul>	
Password	•••••	
Confirm password	Good	
	Advanced	

Fig. 10.29. Create an oracle user.

From Advanced... can be changed if necessary its home directory. Leave the field as default (fig. 10.30).

ADVANCED USER CONFIGURATION								
Home directory: /home/oracle								
User and Group IDs								
Specify a <u>u</u> ser ID manually:	1000	-	+					
Specify a group ID manually:	1000	-	+					
Group Membership Add user to the following groups:	Group Membership Add user to the following groups: Tip: You may input a comma-separated list of group names and group IDs here. Groups that do not							
Example: wheel, my-team (1245)	, project-	x (29	935)	parentheses.				

Fig. 10.30. Defining an oracle user directory.

- 7. Select Reboot to complete the installation.
- 8. Follow the agreement with the license agreement and finish with the configuration (fig. 10.31. and fig. 10.32.).



Fig. 10.31. Oracle Linux License Agreement.



Fig. 10.32. End of Oracle Linux configuration.

When you first start the operating system, you log in with the name root and the pre-set administrator password. A message is displayed asking the user for language settings and others that are not changed, and the short operation manual is omitted until the ready message is displayed, which completes the installation and configuration (fig. 10.32).