Create Oracle User Database

In Oracle database 10g XE, only a single database instance is allowed to be created and implemented for any database applications. To make the database simple and easy, each database object is considered as a schema, and each schema is related to a user or a user account. When you create a new user and assign a new account to that user, exactly you create a new schema. A schema is a logical container for the database objects (such as tables, views, triggers, and so on) that the user creates. The schema name is the same as the user name, and can be used to unambiguously refer to objects owned by the user.

After you download and installed Oracle Database 10g XE, defaultly that database contains a lot of default tables and most of those tables are not related to our special applications. In order to specify a database for our applications, we need to create a user database or a schema to meet our specific requirements in our applications. Following we use the CSE_DEPT database as an example to illustrate how to create a user database in Oracle Database 10g XE.

To create a schema or a new user database, we need to create a new user account with the following steps:

- 1. Log on the Oracle Database 10g XE as the Administrator using the user id: SYSTEM and your password
- 2. Create a new user account using the Administration|Database Users|Create User
- 3. Enter the desired Username and Password
- 4. Click the Create button to create a new user account

Now let's follow these four steps to create our new user account or user database named CSE_DEPT.

Open the Oracle Database 10g XE home page, log in as an Administrator and click the Administration button and go to Administration|Database Users|Create User. On the opened dialog box, enter 'CSE_DEPT' into the Username and 'reback' into the Password and the Confirm Password textboxes, respectively. Keep the 'Unlocked' in the Account Status box unchanged and check the following checkboxes:

- CONNECT
- RESOURCE
- CREATE DATABASE LINK
- CREATE TABLE
- CREATE TYPE

The purpose of checking these checkboxes is to allow this new created user to be able to setup a connection (CONNECT) with this user database, use all data sources, setup database links, create tables as well as the data types as a new instance of this database is created in an application.

Your finished creating new user dialog box should match one that is shown in Figure D-1.

	Search GEAvorites	» Norton Internet Security @ . Norto	n AntiVirus 😡
dress http://127.0.0.1:8080/a	pex/f?p=4500:2611:44742704810	64057::NO:2611::	- 2
			`
Create Database User		Cancel Create	1
			Di All data by a da
Username CSE	_DEPT		page to
Password			Comm
Confirm Password	,		user at
Expire Password			
Account Status Unlo	cked -		
Default Tablespace: USER	RS		
Temporary Tablespace: TEMI	3		
User Privileges			
Roles:			
CONNECT RESOURCE	E 🗖 DBA		
Direct Grant System Privilege	15:		
Direct Grant System Privilege	CREATE MATERIALIZED	VIEW CREATE PROCEDURE	
Direct Grant System Privilege CREATE DATABASE LINK CREATE PUBLIC SYNONY	SS: □ CREATE MATERIALIZED M □ CREATE ROLE	VIEW CREATE PROCEDURE	
Direct Grant System Privilege CREATE DATABASE LINK CREATE PUBLIC SYNONY CREATE SYNONYM	SS: CREATE MATERIALIZED M CREATE ROLE CREATE TABLE	VIEW CREATE PROCEDURE	

Figure D-1. Createing new user dialog box

Click the Create button to create this new user.

After a new user is created, a new schema or a database is also created with the same name as the user's name CSE_DEPT. Next we can add new data tables into this new database. To do that, first we need to log out from the current administrator account and log in as our new user account CSE_DEPT. Click the Logout icon on the upper-right corner of this window and click the Login icon to open the home page again.

Enter 'CSE_DEPT' into the Username and 'reback' into the Password textboxes to log in as a CSE_DEPT user.

Now you can create five data tables such as LogIn, Faculty, Course, Student and StudentCourse in this CSE_DEPT user account or user database as we did in Chapter 2. Also you need to setup the constraints relationships between those five tables as we did in Chapter 2.

If you want to create another new user account with the same tables, you can first create another user and then add those tables using the Unload and Load methods provided by the Utilities button in Oracle Database 10g XE, which is discussed below.

Add Tables Using Load and Unload Methods

Suppose we have already created a user account with five tables: LogIn, Faculty, Course, Student and StudentCourse. Now we want to create another user account with the same five tables. We can use Unload and Load data methods provided by the Utilities button in Oracle Database 10g XE. In the following, we discuss how to add tables into a new user account using the Unload and Load data methods.

Suppose we created five tables in the Administrator account, and now we want to create a new user account called 'CSE_DEPT' with password 'reback' with the same five tables as those in our Administrator account. To do that, first we need to create a new user account as we did in the last part. The point is that you need to log on as an Administrator to create a new user account CSE_DEPT.

After the new user CSE_DEPT is created, we need to add five tables from the Administrator account (database) into the CSE_DEPT account (database). To do that, we need to perform the following steps:

- 1. Unload five tables (one by one) from the Administrator account to temporary text files
- 2. Load five tables (one by one) from the temporary text files into the CSE_DEPT account

Now let's open Oracle Database 10g XE to perform this data table copying and adding process to the new user CSE_DEPT. Suppose that the user CSE_DEPT has been created with the password 'reback'.

Open and log on as Administrator to Oracle Database 10g XE, click Utilities button and select Data Load/Unload|Unload item to open the Unload page. Then click the Unload to Text icon to open the Unload to Text page. On the opened page, click the Next button to go to the next page, which is shown in Figure D-2.

Unload to Text - Micros Elle Edit View Favor	oft Internet Explorer ites Iools Help I Al Al Search Gill Envoyther (MMada CM I) Da	 Noton Internet Security (Rev. Noton Antility) 	-0
Address http://127.0.0.	1:8080/apex/wwv_flow.accept	Juoron Brenet Secury	• @60
ome > Utilities > Data Lo	ad/Unload > Unload > <mark>Unload to Text</mark>		
Schema V Table Name V Columns V Options	Unload to Text Table - Select Table	Cancel < Previous Next >	Selec would format
anduada: an.iie		Convright @ 1999 2006 Oracla All rights	received
Done		Internet	_

Figure D-2. Select data table

Click the drop-down arrow from the Table combo box and select the desired data table we want to unload. We need to unload all five tables, but right now we want to unload the first table – LogIn. Select that table and click the Next to go to the next page.

In the next page, select all columns by highlighting them, as shown in Figure D-3.

Unload to Text - Microsoft File Edit View Favorite:	: Internet Explorer s <u>T</u> ools <u>H</u> elp		
😓 Back 🔹 🤿 🖉 🛃	🚰 🛛 🐼 Search 📾 Favorites 🞯 Media 🏼 🕉 🗏	🔄 👻 🐂 Norton Internet Security 📵 - 🔤 Norton AntiVirus 😵	-
Address 🕘 http://127.0.0.1:8	0080/apex/wwv_flow.accept	<u> </u>	€ GO
User: SYSTEM	ase Express Edition	<u>Home Logout h</u>	? -
ome > Utilities > Data Load	Aunload > Unload > Unload to Text		
Schema	Unload to Text	Cancel < Previous Next >	Seler
Table Name Columns	Columns USER_NAME PASS_WORD FACULTY_ID STUDENT_ID		to be
opano			
			•

Figure D-3. Select all columns in LogIn table

Click the Next button to go to the next page.

On the opened next page, keep the default selections and check the Include Column Names checkbox, which is shown in Figure D-4.

• Back • 🔿 - 🎯 🔮	G Search Favorites	Media 🎯 🖪	 Norto 	on Internet Security 🧃	Norton An	tiVirus 😵 🕶
dress 🕘 http://127.0.0.	1:8080/apex/wwv_flow.accept					• 6
RACLE Dat	abase Express Edition				Q	0 ?
					Home	Logout Help
Jser: SYSTEM						
ne > Utilities > Data Lo	ad/Unload > Unload > <mark>Unload to</mark>	Text				
Schema	Upload to Tout		Connel	a Decidence	Iluland De	• I
v	_ Onload to Text		Cancer	< Previous	Unitad Da	Spe
		Ontionally Enclos	sed By	🔽 Include Colum	n Namac	USE
Table Name	Separatori	Optionally Enclos	sed Dyl	I Include Colum	nivames	text
Table Name	Separator,					10/16
Table Name Columns	Separator, File Format DOS	•				
Table Name Columns Options	File Format DOS	• te UTF-8	•			
Table Name	Separatori	Optionally Enclos	sed Dyl	I Include Colum	nivames	

Figure D-4. Include the column names

Click the Unload Data button to begin to unload the data for this table. Click the Save button to the popup message box to save or unload this data into a temporary text file, **login.txt**, which is shown in Figure D-5.

Save As					<u>?</u> ×
Save jn:	🔁 Temp		•	+ 🗈 💣 📰-	
Galactics History Desktop	C wget				
My Documents My Computer	File <u>n</u> ame: Save as <u>type</u> :	login.txt Text Document		v	<u>S</u> ave Cancel

Figure D-5. Save login.txt file

Click the Save and then Close buttons to finish this unloading data process.

Click the Home icon to return to the Home page of the Oracle Database 10g XE. In a similar way, we can finish unloading all other four tables: Faculty, Course, Student and StudentCourse.

After all five tables have been unloaded, log out the database and log in as the new user CSE_DEPT with the password 'reback'. Now we need to load all five tables into our new user account (database) CSE_DEPT.

Click the Utilities button and select Data Load/Unload|Load item to open the Load Data page. Click the Load Text Data button to open the next page, which is shown in Figure D-6.



Figure D-6. Load Text Data page

Since we need to load this data from a temporary text file into a new table, so keep the default selections and click the Next button to go to the next page.

Click the Browse button to find our temporary text data file **login.txt**, select it and click the Open button to add it into the File textbox, as shown in Figure D-7.

🚈 Load Data - Microsoft In	ternet Explorer	
Eile Edit ⊻iew Favorit	es <u>I</u> ools <u>H</u> elp	-
] ⇔ Back • ⇒ • 🙆 😰	🟦 🕅 Search 🝙 Favorites 🛞 Media 🎯 🖏 - 👋 Norton Internet Security 🍘 - 🛛 Norton AntiVirus 😵 -	
Address 🙆 http://127.0.0.1	:8080/apex/f?p=4300:18:2666655093802648::NO:18,19,21::	¢G0
- Home > Utilities > Data Loa	d/Unload > Load > <mark>Load Data</mark>	-
File Details	Load Data Cancel < Previous Next >	1
Table Properties	File C:\Temp\login.txt Browse	i
Primary Key	• Separator: (\t for tab),	
	Optionally Enclosed By	
	✓ First row contains column names.	
	File Character Set Unicode UTF-8	
4		•
e	Sector Internet	

Figure D-7. Select the temporary text file login.txt

Click the Next button to go to the next page.

Enter 'LogIn' into the Table Name textbox, which is shown in Figure D-8.

e gat jon rgrones j	000 (Lop		151 m lu	· · · ·				
Back • ⇒ • 🎯 🗗 🔐	Q Search	avorites IgrMedia	Norton Interne	t Security 👜 • Norton	AntiVirus 🍾 🔹			
ress e http://127.0.0.1:8080/	apex/wwv_flow.ac	cept			- (
File Details	ad Data		Cancel	< Previous	Next >			
Table Properties	Schema CS	SE_DEPT						
Primary Key	Table Name Login Preserve Case							
S	et Table Propert	ies						
	Column Names	USER_NAME	PASS_WORD	FACULTY_ID	STUDENT_ID			
c	lata Type	VARCHAR2	VARCHAR2	VARCHAR2	VARCHAR2			
F	ormat							
	Column Length	30	30	30	30			
L	lpload	Yes 💌	Yes 💌	Yes 💌	Yes 💌			
5	low 1	abrown	america	B66750				
1	tow 2	ajade	tryagain		A97850			
F	tow 3	awoods	smart		A78835			
5	tow 4	banderson	birthday	A52990				
5	tow 5	bvalley	see		B92996			
6	tow 6	dangles	tomorrow	A77587				
6	tow 7	hsmith	try		H10210			

Figure D-8. Enter the LogIn into the Table Name textbox

Click the Next button to go to the next page.

Check the **Use an existing column** checkbox for the Primary Key From item and **Not generated** checkbox for the Primary Key Population item since we want to use an existing column USER_NAME in the LogIn table as the primary key, and we do not want to use any sequence number as our primary key. Also select the USER_NAME column from the Primary Key textbox since we want to use this column as our primary key. Your finished Primary Key page is shown in Figure D-9.



Figure D-9. The Primary Key page

Click Load Data button to begin to load the data. The next page is shown to indicate whether this data loading is successful or not, which is shown in Figure D-10.

ile E	lit ⊻iew	Favorites	<u>I</u> ools <u>H</u> elp								
- Back	• <i>></i> - (3 1 4	} 🕄 Search 💽	Favorites 🛞 Media	. 3	집- »]	Norton Inte	ernet Secur	ity 🌐 - 🗍 I	Norton AntiViru	s 😵 🔹
dress	🛃 http://12	27.0.0.1:808	80/ape×/wwv_flow.	accept							- 00
User: CS ne > U	E_DEPT	ata Load/U	nload > Text Data	a Load Repository						Home Lo	ogout <u>Help</u>
Show	My Import	t Files 💌	Go	Delete Checke	d						This pag
Show	My Impor	t Files 💌	Go	Delete Checke	d						This pag loaded T
Show	My Impor itory Details	t Files 💌 File	Go	Delete Checke	d Type	Schema	Table	Bytes	Succeede	d Failed	This pag loaded T
Show Repos	My Impor itory Details	Files File	Go Imported By CSE_DEPT	Delete Checke	d Type Text Import	Schema CSE_DEPT	<u>Table</u> LOGIN	Bytes 348	Succeede	d Failed 3 0	This pag loaded T To acces the file n

Figure D-10. Data loading result

A number of 13 is shown under the Succeeded tab, which means that this data loading is successful.

Click the Home icon to return to the Home page of the Oracle Database 10g XE. Now let's continue to load data for the Faculty table.

Click the Utilities button and select Data Load/Unload|Load item to open the Load Data page. Click the Load Text Data button to open the next page, and click the Next button to go to the next page.

Click the Browse button to find our temporary text data file **faculty.txt**, and click the Open button to add it into the File textbox, which is shown in Figure D-11.

ile Edit View Favor ⊐Back • → • 🙆 🔮	ites Iools Help] 🚮 🔞 Search 📾 Favorites @Media 🎯 🗟 •	» Norton Internet Security	🗒 👻 🛛 Norton AntiVirus 🥹 👻
dress 🙋 http://127.0.0.	1:8080/apex/f?p=4300:18:2666655093802648::NO:18,19,21::		- 0
User: CSE_DEPT			
ne > Utilities > Data Lo	ad/Unload > Load > <mark>Load Data</mark>		
File Details V	Load Data	Cancel	< Previous Next >
Table Properties	File C:\Temp\faculty.txt		Browse
Primary Key	 Separator: (t for tab) 		
	Optionally Enclosed By		
	First row contains column	n names.	
	File Character Set Unicode UTF-8		
	Clabalization		

Figure D-11. The File Details page

Click the Next button to go to the next page.

Enter Faculty into the Table Name textbox, which is shown in Figure D-12.

Doad Data - Microsoft In	nternet Explorer tes Iools Help					× 🗆 -
) 🚮 🧿 Search 💽 F 1:8080/apex/www_flow.ac	avorites @Media 🕃 cept	Norton Inter	net Security 📵 🗸 📃	Norton AntiVirus 😵 🔹	• • @Go
File Details	Load Data		Cancel	< Previous	Next >	<u>^</u>
Table Properties Primary Key	• Schema CS • Table Name Fa	E_DEPT	Preserve	Case		
	Set Table Properti	es				
	Column Names	FACULTY_ID	NAME	OFFICE	PHONE	
	Data Type	VARCHAR2	VARCHAR2	VARCHAR2	VARCHAI	R2 💌
4	Format	I				<u> </u>
Done Done					S Internet	

Figure D-12. The Table Properties page

Click the Next button to go to the next page.

In the opened Primary Key page, check the **Use an existing column** checkbox for the Primary Key From item and **Not generated** checkbox for the Primary Key Population item since we want to use an existing column FACULTY_ID in the Faculty table as the primary key, and we do not want to use any sequence number as our primary key. Also select the FACULTY_ID column from the Primary Key textbox since we want to use this column as our primary key. Your finished Primary Key page is shown in Figure D-13.



Figure D-13. The Primary Key page

Click the Load Data button to begin to load the data. The next page is shown up to indicate whether this data loading is successful or not, which is shown in Figure D-14.

	(Search 💽 F	avorites @Media	3 3	- >> No	orton Internet	Security (Norton A	IntiVirus 😵	-
ress	http://12	7.0.0.1:8080	/apex/wwv_flow.ac	cept							- 6
e > U	tilities > Da	ita Load/Unl	oad > Text Data L	.oad Repository				11			
spos	Details	File	Imported By	Imported On V	Туре	Schema	Table	Bytes	Succeeded	Failed	loaded T
			CSE DEPT	0 seconds ago	Text	CSE_DEPT	FACULTY	858	8	0	To acces the file n
	Q	Tacuity Ixt	0.0127.020.00								
		login.txt	CSE_DEPT	17 minutes ago	Text Import	CSE_DEPT	LOGIN	348	13	0	To remo and click

Figure D-14. The data loading result page

A number of 8 is shown under the Succeeded tab, which means that this data loading is successful.

Click the Home icon to return to the Home page of the Oracle Database 10g XE. In a similar way, we can finish loading all other three tables: Course, Student and

StudentCourse.