



Instituto de Tecnologia - ITEC  
Faculdade de Engenharia da Computação

# BANCO DE DADOS

## Oracle 11G XE

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# Estrutura do Dicionário de Dados

## □ Tabelas base (*base tables*)

- ▣ Armazenamento das informações sobre o BD.
- ▣ Acesso realizado somente pelo Oracle.

## □ User-accessible Views

- ▣ Visões que exibem dados das **tabelas base** do dicionário de dados.
- ▣ Dados mostrados de forma organizada para a utilização do usuário.
- ▣ São identificadas por prefixos: ***USER***, ***ALL*** e ***DBA***.

# Estrutura do Dicionário de Dados

## □ User-accessible Views

### ▣ USER

- Retorna informações a respeito dos objetos do esquema do usuários.
- Views mais consultadas:
  - **USER\_OBJECTS**
  - **USER\_TABLES**
  - **USER\_TAB\_COLUMNS**
  - **USER\_CONSTRAINTS**
  - **USER\_CONS\_COLUMNS**

# Estrutura do Dicionário de Dados

## □ User-accessible Views

### ▣ ALL

- Visualizar todos os objetos dos quais o usuário possui permissão.

#### ■ Ex.

- `SELECT owner, object_name, object type from ALL_OBJECTS;`

### ▣ DBA

- Visualizar todos os objetos.

# Oracle 11G XE

The screenshot shows the Oracle Database XE 11.2 web interface accessed via a Firefox browser. The browser's address bar shows the URL `127.0.0.1:8080/apex/f?p=4950:1:635909912870012`. The page title is "ORACLE® Oracle Database XE 11.2". A navigation bar at the top contains tabs for "Home", "Storage", "Sessions", "Parameters", and "Application Express", with "Home" currently selected. The main content area is divided into two columns. The left column features four sections, each with a description and a red button with a right-pointing arrow: "Storage" (View currently used storage), "Sessions" (View current database sessions), "Parameters" (View initialization parameters), and "Application Express" (Get started with Oracle Application Express). The right column is titled "Links" and contains a list of links: "Online Help", "Learning Library", "Oracle Technology Network", "Oracle SQL Developer", "Oracle Express Edition", "Oracle Application Express", "Oracle JDeveloper 11g", and "Pre-built Developer VMs".

Firefox Home +

127.0.0.1:8080/apex/f?p=4950:1:635909912870012

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## ORACLE® Oracle Database XE 11.2

Home Storage Sessions Parameters Application Express

**Storage**  
View currently used storage.

**Sessions**  
View current database sessions.

**Parameters**  
View initialization parameters.

**Application Express**  
Get started with Oracle Application Express.

**Storage >**

**Sessions >**

**Parameters >**

**Application Express >**

**Links**

- > Online Help
- > Learning Library
- > Oracle Technology Network
- > Oracle SQL Developer
- > Oracle Express Edition
- > Oracle Application Express
- > Oracle JDeveloper 11g
- > Pre-built Developer VMs

# Oracle 11G XE

Login

Username

sys

Password

●●●●●

Login

Login as a database user which has been granted the DBA database role (for example, SYSTEM).

# Oracle 10G XE

Create Application Express Workspace

Cancel

Create Workspace

Database User

☒ Create New  
☐ Use Existing

\* Database Username

aulapratica

\* Application Express Username

aula08

\* Password

\* Confirm Password

Getting Started

Already have an account? Login Here

To get started with Oracle Application Express, create a workspace. You will need to specify:

- Database Username - Name of the database user to be created
- Application Express Username - Your login name for the Application Express Workspace
- Password - Password of both your database user and Application Express user

Once created, you will be able to [login to your Application Express workspace](#) using these credentials

# Oracle 11G XE

**ORACLE** Oracle Database XE 11.2

Welcome: SYS [Logout](#)

Home

Storage

Sessions

Parameters

Application Express

Successfully created workspace AULAPRATICA. To begin, [click here](#) to login. ×

## Storage

View currently used storage.

Storage >

## Sessions

View current database sessions.

Sessions >

## Parameters

View initialization parameters.

Parameters >

## Application Express

Get started with Oracle Application Express.

Application Express >

## Links

- > [Online Help](#)
- > [Learning Library](#)
- > [Oracle Technology Network](#)
- > [Oracle SQL Developer](#)
- > [Oracle Express Edition](#)
- > [Oracle Application Express](#)
- > [Oracle JDeveloper 11g](#)
- > [Pre-built Developer VMs](#)



# Oracle 11G XE

**ORACLE** Application Express



Enter Application Express workspace and credentials.

Workspace

Username

Password

Login

[Click here to learn how to get started](#)

Oracle Application Express is a rapid Web application development tool that lets you share data and create custom applications. Using only a Web browser and limited programming experience, you can develop and deploy powerful applications that are both fast and secure.

Language: English, Português (Brasil), 中文(简体), 日本語

# Oracle 11G XE

ORACLE® Application Express

Welcome AULA08 ( [Logout](#) )

Home

Application Builder ▼

SQL Workshop ▼

Team Development ▼

Administration ▼

Search Workspace

Help

Workspace AULAPRATICA

[Learn more ...](#)



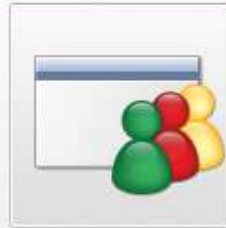
Application Builder



SQL Workshop



Team Development



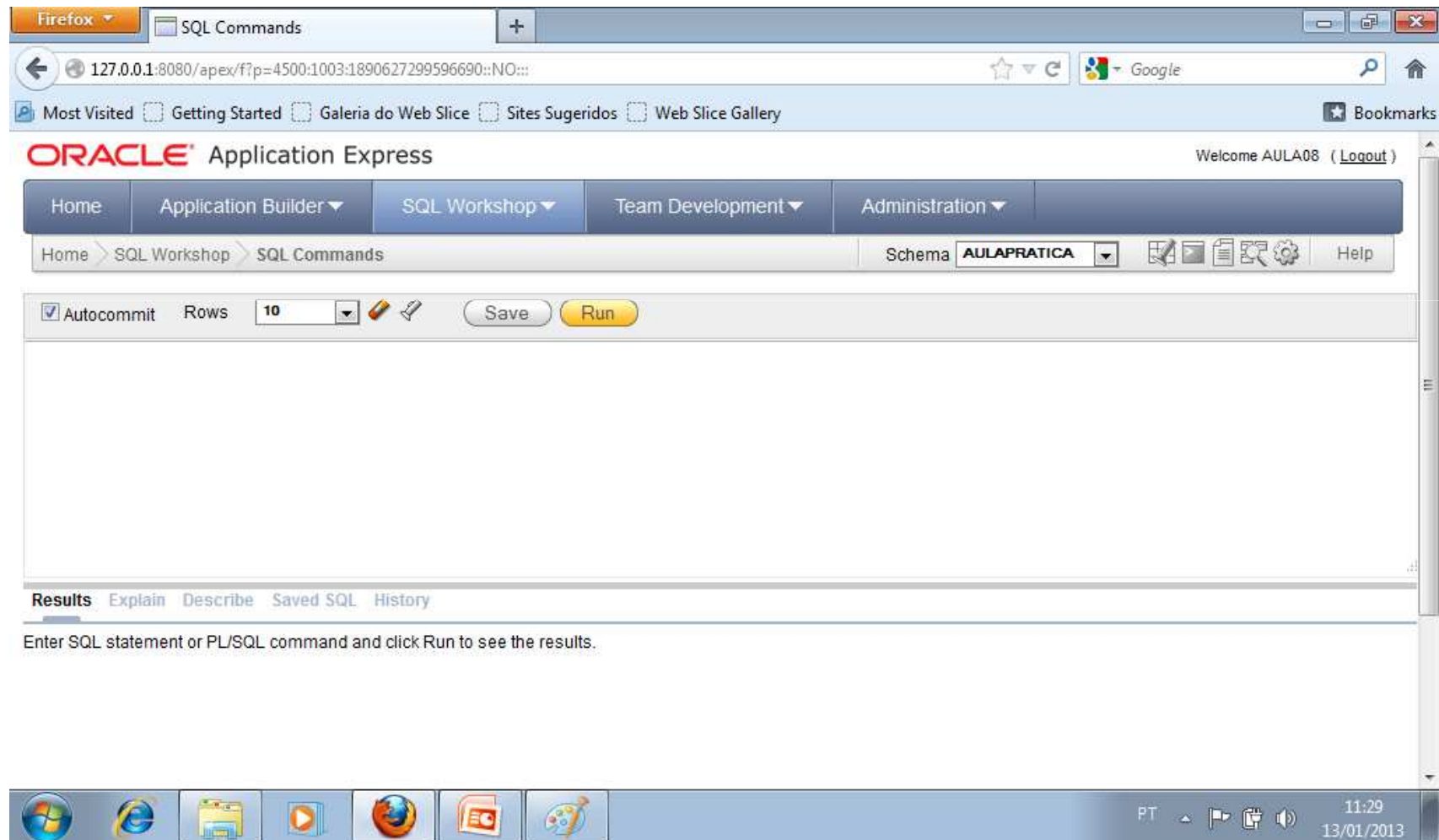
Administration

About

Application Express is a rapid Web application development tool that lets you share data and create applications. Using only a Web browser and limited programming experience, you can develop and deploy applications that are fast and secure.

Available Updates

# Oracle 11G XE



# Oracle 11G XE

ORACLE Application Express Welcome AULA08 ( [Logout](#) )

Home Application Builder ▼ SQL Workshop ▼ Team Development ▼ Administration ▼

Home > SQL Workshop > SQL Commands Schema **AULAPRATICA** ▼  Help

☒ Autocommit Rows **10**   Save Run



```
create table empregado (  
  cpf char(11),  
  nome varchar(80),  
  depto number(3),  
  constraint pk_emp primary key (cpf))
```

Results Explain Describe Saved SQL History

Table created.

0.80 seconds

# Oracle 11G XE

☒ Autocommit Rows    Save Run

```
desc empregado
```

[Results](#) [Explain](#) [Describe](#) [Saved SQL](#) [History](#)

Object Type **TABLE** Object **EMPREGADO**

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
<u>EMPREGADO</u>	<u>CPF</u>	CHAR	11	-	-	1	-	-	-
	<u>NOME</u>	VARCHAR2	80	-	-	-	✓	-	-
	<u>DEPTO</u>	NUMBER	-	3	0	-	✓	-	-
1 - 3									

Application Express 4.0.2.00.09

# Oracle 11G XE

ORACLE® Application Express

Welcome AULA08 ([Logout](#))

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Application Builder ▼

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Administration ▼

Home > SQL Workshop > SQL Commands

Schema **AULAPRATICA** ▼

Help

☒ Autocommit

Rows

10 ▼

Save



Run

```
create table departamento (  
  cod_depto number(3),  
  nome_depto varchar(40),  
  constraint pk_depto primary key (cod_depto));
```

```
alter table empregado add constraint fk_emp_depto foreign key (depto) references departamento(cod_depto);
```

Results Explain Describe **Saved SQL** History

# Oracle 11G XE

☒ Autocommit Rows   

```
create table departamento (  
cod_depto number(3),  
nome_depto varchar(40),  
constraint pk_depto primary key (cod_depto));  
  
alter table empregado add constraint fk_emp_depto foreign key (depto) references departamento(cod_depto);
```

Results Explain Describe **Saved SQL** History

Owner  Find  Rows

<input type="checkbox"/>	Owner	Name	Description	SQL	Updated By	Last Updated ▲
<input type="checkbox"/>	AULA08	<a href="#">create_emp</a>	-	create table empregado ( cpf char(11), nome varchar(80), depto number(3), constraint pk_emp primary key (cpf))	AULA08	4 minutes ago
<input type="checkbox"/>	AULA08	<a href="#">create_depto</a>	-	create table departamento ( cod_depto number(3), nome_depto varchar(40), constraint pk_depto primary key (cod_depto));	AULA08	21 seconds ago
<input type="checkbox"/>	AULA08	<a href="#">alter_fk_emp_depto</a>	-	alter table empregado add constraint fk_emp_depto foreign key (depto) references departamento(cod_depto);	AULA08	Now

row(s) 1 - 3 of 3

<input type="checkbox"/>	Owner	Name	Description	SQL	Updated By	Last Updated ▲
<input type="checkbox"/>	AULA08	<a href="#">create_emp</a>	-	create table empregado ( cpf char(11), nome varchar(80), depto number(3), constraint pk_emp primary key (cpf))	AULA08	4 minutes ago
<input type="checkbox"/>	AULA08	<a href="#">create_depto</a>	-	create table departamento ( cod_depto number(3), nome_depto varchar(40), constraint pk_depto primary key (cod_depto));	AULA08	21 seconds ago
<input type="checkbox"/>	AULA08	<a href="#">alter_fk_emp_depto</a>	-	alter table empregado add constraint fk_emp_depto foreign key (depto) references departamento(cod_depto);	AULA08	Now

# Oracle 11G XE

ORACLE Application Express

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Application Builder▼

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Administration▼

Home > SQL Workshop > SQL Scripts

 Help

Script uploaded. You may click on the script to edit or run it.

Delete Checked

Upload >

Create >



Go



Actions ▼

	Edit	Owner	Name	Updated By	Last Updated▼	Bytes	Results	Run
<input checked="" type="checkbox"/>		AULA08	Teste	AULA08	1 seconds ago	348	0	

1 - 1

Tasks

Manage Results

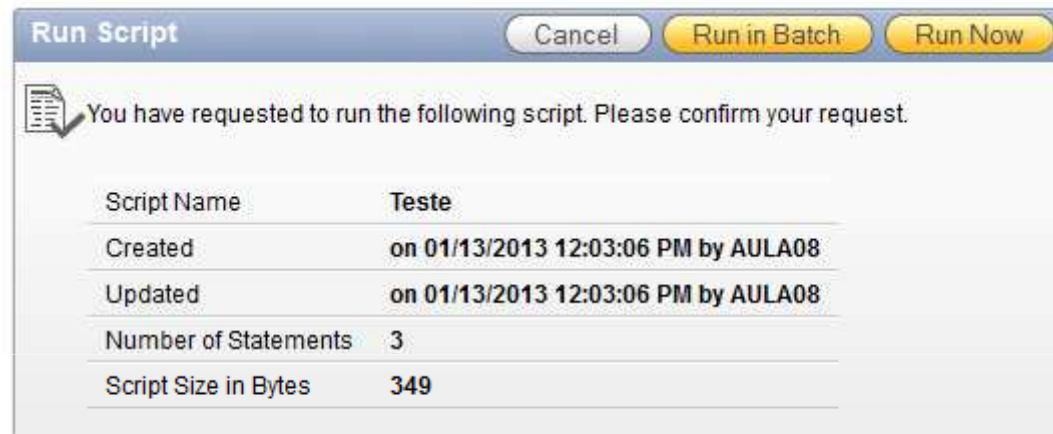
Show Quotas

Export

Import

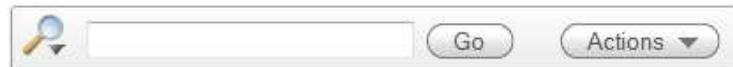


# Oracle 11G XE



ORACLE® Application Express

Welcome AULA08 ( [Logout](#) )



Script	Run By	Started	Elapsed	Status	Statements	Bytes	View Results
<a href="#">Teste</a>	AULA08	Now	0.19	COMPLETE	3 of 3	0	

# Oracle 11G XE

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Welcome AULA08 ( [Logout](#) )

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Application Builder ▼

SQL Workshop ▼

Team Development ▼

Administration ▼

Home > SQL Workshop > SQL Scripts > Results

Help

Script: **Teste**

Status: **Complete**

[Edit Script](#)

View:



Detail



Summary

Rows

15



Number	Elapsed	Statement	Feedback	Rows ▲
1	0.08	create table empregado ( cpf char(11), nome varchar(80),	Table created.	0
2	0.03	create table departamento ( cod_depto number(3), nome_dept	Table created.	0
3	0.04	alter table empregado add constraint fk_emp_depto foreign ke	Table altered.	0
row(s) 1 - 3 of 3				

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Statements Processed	3
Successful	3
With Errors	0

# Oracle 11G XE

**ORACLE** Application Express Welcome AULA08 ( [Logout](#) )

Home Application Builder SQL Workshop Team Development Administration

Home SQL Workshop SQL Commands Schema **AULAPRATICA** Help

☒ Autocommit Rows **10** Save Run

```
select table_name from user_tables
```

**Results** Exp

Enter SQL stat

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DEMO_ORDERS					
DEMO_PRODUCT_INFO					
DEMO_ORDER_ITEMS					
DEMO_STATES					
APEX\$_ACL					
APEX\$_WS_WEBPG_SECTIONS					
APEX\$_WS_ROWS					
APEX\$_WS_HISTORY					
APEX\$_WS_NOTES					
APEX\$_WS_LINKS					
APEX\$_WS_TAGS					
APEX\$_WS_FILES					
APEX\$_WS_WEBPG_SECTION_HISTORY					
EMPREGADO					
DEPARTAMENTO					

19 rows returned in 0.07 seconds [Download](#)

Application Express 4.0.2.00.09

Workspace: AULAPRATICA User: AULA08 Language: en | Copyright © 1999, 2010, Oracle. All rights reserved.

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Home > SQL Workshop > SQL Commands Schema **AULAPRATICA** ▼  Help

☒ Autocommit Rows **200**  

```
select constraint_name, constraint_type, table_name from user_constraints
```

Firefox SQL Commands + 

127.0.0.1:8080/apex/f?p=4500:1003:1890627299596690::NO::

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SYS_C007062	C	APEX\$_WS_FILES
SYS_C007063	C	APEX\$_WS_FILES
SYS_C007064	C	APEX\$_WS_FILES
SYS_C007065	C	APEX\$_WS_FILES
APEX\$_WS_FILES_CL_CK	C	APEX\$_WS_FILES
APEX\$_WS_FILES_PK	P	APEX\$_WS_FILES
APEX\$_WS_FILES_FK	R	APEX\$_WS_FILES
SYS_C007069	C	APEX\$_WS_WEBPG_SECTION_HISTORY
SYS_C007070	C	APEX\$_WS_WEBPG_SECTION_HISTORY
SYS_C007071	C	APEX\$_WS_WEBPG_SECTION_HISTORY
SYS_C007072	C	APEX\$_WS_WEBPG_SECTION_HISTORY
SYS_C007073	C	APEX\$_WS_WEBPG_SECTION_HISTORY
PK_EMP	P	EMPREGADO
PK_DEPTO	P	DEPARTAMENTO
FK_EMP_DEPTO	R	EMPREGADO

90 rows returned in 0.15 seconds [Download](#)

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Home > SQL Workshop > SQL Commands

Schema **AULAPRATICA** ▼

Help

☒ Autocommit

Rows

200 ▼

Save

Run

```
select constraint_name, table_name, column_name from user_cons_columns
```

Firefox | SQL Commands | 127.0.0.1:8080/apex/f?p=4500:1003:1890627299596690::NO::

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SYS_C007061	APEX\$\$_WS_FILES	WS_APP_ID
APEX\$\$_WS_FILES_FK	APEX\$\$_WS_FILES	ROW_ID
APEX\$\$_WS_FILES_CL_CK	APEX\$\$_WS_FILES	COMPONENT_LEVEL
SYS_C007062	APEX\$\$_WS_FILES	NAME
SYS_C007063	APEX\$\$_WS_FILES	MIME_TYPE
SYS_C007064	APEX\$\$_WS_FILES	CREATED_ON
SYS_C007065	APEX\$\$_WS_FILES	CREATED_BY
SYS_C007069	APEX\$\$_WS_WEBPG_SECTION_HISTORY	SECTION_ID
SYS_C007070	APEX\$\$_WS_WEBPG_SECTION_HISTORY	WS_APP_ID
SYS_C007071	APEX\$\$_WS_WEBPG_SECTION_HISTORY	WEBPAGE_ID
SYS_C007072	APEX\$\$_WS_WEBPG_SECTION_HISTORY	APPLICATION_USER_ID
SYS_C007073	APEX\$\$_WS_WEBPG_SECTION_HISTORY	CHANGE_DATE
PK_EMP	EMPREGADO	CPF
FK_EMP_DEPTO	EMPREGADO	DEPTO
PK_DEPTO	DEPARTAMENTO	COD_DEPTO

90 rows returned in 0.82 seconds [Download](#)

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