

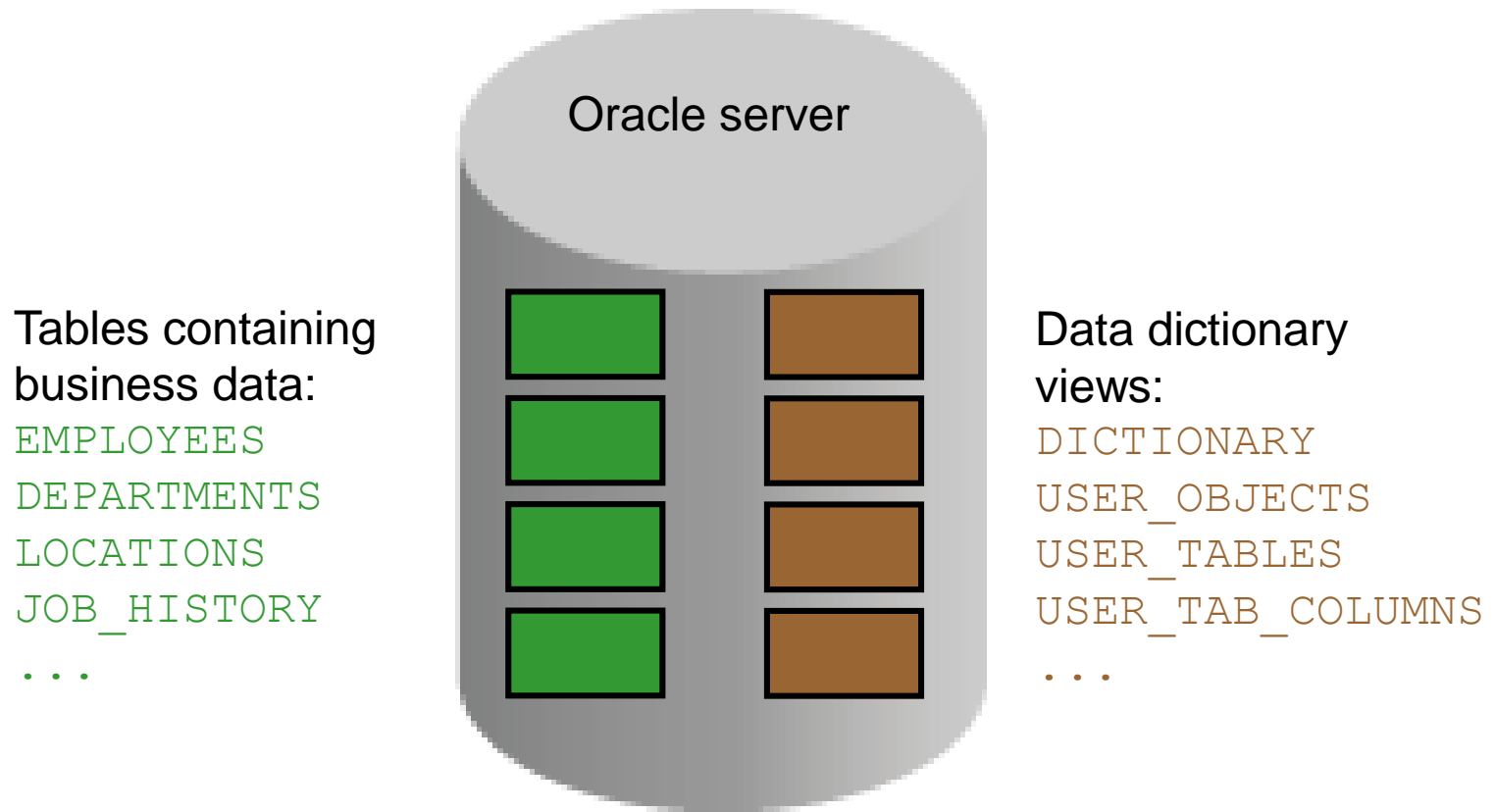
# Oracle 11g - SQL

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## **Managing Objects with Data Dictionary Views**

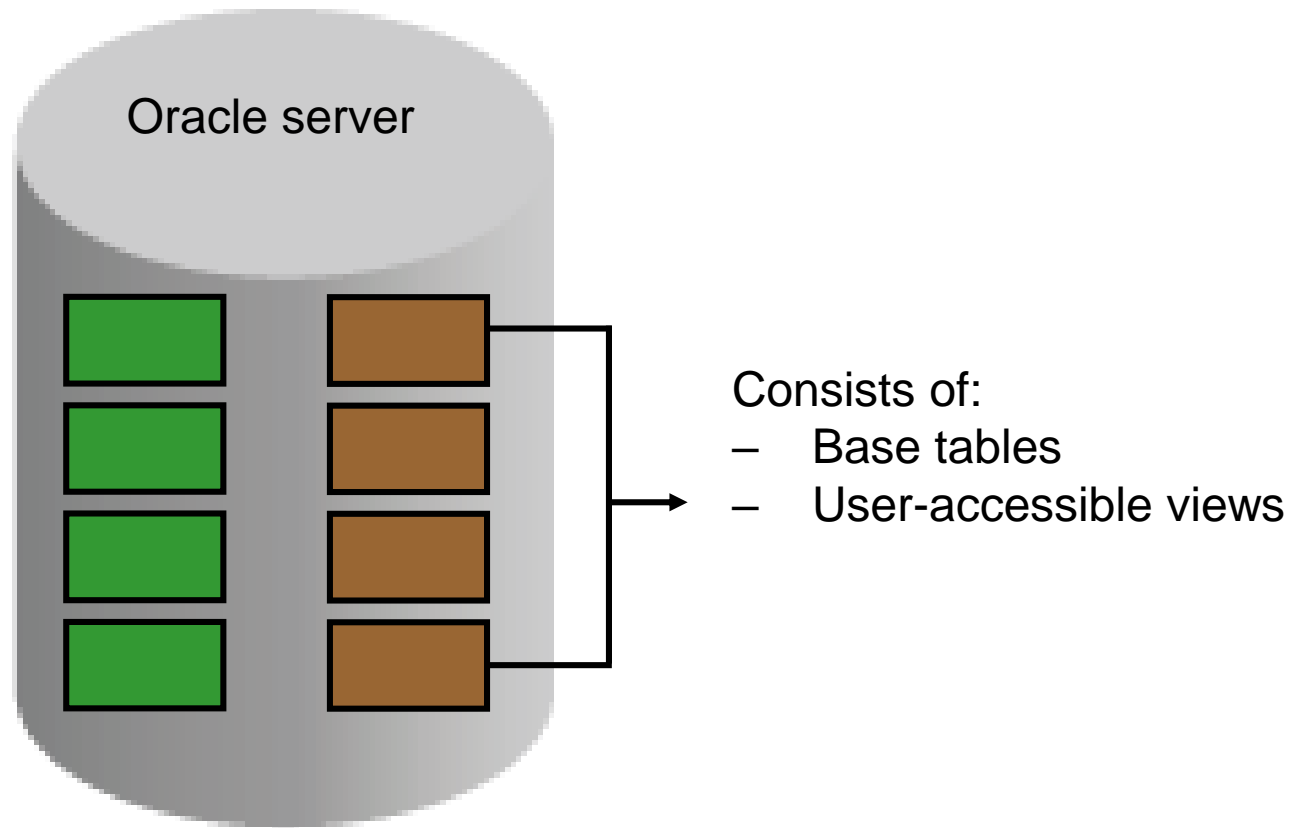
# Data Dictionary

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# Data Dictionary Structure

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# Data Dictionary Structure

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View naming convention:

View Prefix	Purpose
USER	User's view (what is in your schema; what you own)
ALL	Expanded user's view (what you can access)
DBA	Database administrator's view (what is in everyone's schemas)
V\$	Performance-related data



# How to Use the Dictionary Views

Start with `DICTIONARY`. It contains the names and descriptions of the dictionary tables and views.

```
DESCRIBE DICTIONARY
```

Name	Null	Type
-----	-----	-----
TABLE_NAME		VARCHAR2(30)
COMMENTS		VARCHAR2(4000)

```
SELECT *  
FROM   dictionary  
WHERE  table_name = 'USER_OBJECTS';
```

	 TABLE_NAME	 COMMENTS
1	USER_OBJECTS	Objects owned by the user

# USER\_OBJECTS and ALL\_OBJECTS Views

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- Use the USER\_OBJECTS view to:
  - o See all of the objects that are owned by you
  - o Obtain a listing of all object names and types in your schema, plus the following information:
    - Date created
    - Date of last modification
    - Status (valid or invalid)
- Use the ALL\_OBJECTS view to see all objects to which you have access

# USER\_OBJECTS View

```
SELECT object_name, object_type, created, status
FROM   user_objects
ORDER BY object_type;
```

	OBJECT_NAME	OBJECT_TYPE	CREATED	STATUS
1	REG_ID_PK	INDEX	29-OCT-08	VALID
2	DEPT_NAME_IDX	INDEX	11-NOV-08	VALID
3	DEPARTMENT_ID_PK	INDEX	11-NOV-08	VALID
4	LOC_COUNTRY_IX	INDEX	29-OCT-08	VALID
5	LOC_STATE_PROVINCE_IX	INDEX	29-OCT-08	VALID
6	LOC_CITY_IX	INDEX	29-OCT-08	VALID
7	JHIST_DEPARTMENT_IX	INDEX	29-OCT-08	VALID
8	JHIST_EMPLOYEE_IX	INDEX	29-OCT-08	VALID

...

# Table Information

## USER\_TABLES:

```
DESCRIBE user_tables
```

Name	Null	Type
TABLE_NAME	NOT NULL	VARCHAR2(30)
TABLESPACE_NAME		VARCHAR2(30)
CLUSTER_NAME		VARCHAR2(30)
IOT_NAME		VARCHAR2(30)

...

```
SELECT table_name  
FROM user_tables;
```

	TABLE_NAME
1	REGIONS
2	LOCATIONS
3	DEPARTMENTS
4	JOBS
5	EMPLOYEES

...



# Column Information

## USER\_TAB\_COLUMNS:

```
DESCRIBE user_tab_columns
```

Name	Null	Type
TABLE_NAME	NOT NULL	VARCHAR2(30)
COLUMN_NAME	NOT NULL	VARCHAR2(30)
DATA_TYPE		VARCHAR2(106)
DATA_TYPE_MOD		VARCHAR2(3)
DATA_TYPE_OWNER		VARCHAR2(30)
DATA_LENGTH	NOT NULL	NUMBER
DATA_PRECISION		NUMBER
DATA_SCALE		NUMBER
NULLABLE		VARCHAR2(1)
COLUMN_ID		NUMBER
DEFAULT_LENGTH		NUMBER
DATA_DEFAULT		LONG()

...

# Column Information

```
SELECT column_name, data_type, data_length,  
       data_precision, data_scale, nullable  
FROM   user_tab_columns  
WHERE  table_name = 'EMPLOYEES';
```

	COLUMN_NAME	DATA_TYPE	DATA_LENGTH	DATA_PRECISION	DATA_SCALE	NULLABLE
1	EMPLOYEE_ID	NUMBER	22	6	0	N
2	FIRST_NAME	VARCHAR2	20	(null)	(null)	Y
3	LAST_NAME	VARCHAR2	25	(null)	(null)	N
4	EMAIL	VARCHAR2	25	(null)	(null)	N
5	PHONE_NUMBER	VARCHAR2	20	(null)	(null)	Y
6	HIRE_DATE	DATE	7	(null)	(null)	N
7	JOB_ID	VARCHAR2	10	(null)	(null)	N
8	SALARY	NUMBER	22	8	2	Y
9	COMMISSION_PCT	NUMBER	22	2	2	Y
10	MANAGER_ID	NUMBER	22	6	0	Y
11	DEPARTMENT_ID	NUMBER	22	4	0	Y