Database Programming with SQL

13-1: Creating Tables

Practice Activities

Objectives

* List and categorize the main database objects
* Review a table structure
* Describe how database schema objects are used by the Oracle database

Vocabulary

|  |  |
| --- | --- |
| Data dictionary | Created and maintained by the Oracle Server and contains  information about the database |
| Schema | A collection of objects that are the logical structures that directly  refer to the data in the database |
| DEFAULT | Specifies a preset value if a value is omitted in the INSERT  statement |
| TABLE | Stores data; basic unit of storage composed of rows  and columns |
| CREATE TABLE | Command use to make a new table |

Try It / Solve It

1. Complete the GRADUATE CANDIDATE table instance chart. Credits is a foreign-key column

referencing the requirements table.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Column Name | student\_id | last\_name | first\_name | Credits | graduation\_date |
| Key type | Primary key |  |  | Foreign key |  |
| Nulls/Unique | Fara nulls, yes uniques | Fara nulls, fara unice | Fara nulls, fara unice | Fara, fara | Pot fi nule daca nu au absolvit inca studentii, nu trebuie sa fie date unice |
| FK Column |  |  |  | credits |  |
| Datatype | NUMBER | VARCHAR2 | VARCHAR2 | NUMBER | DATE |
| Length | 6 |  |  | 3 |  |

2. Write the syntax to create the grad\_candidates table.

CREATE TABLE graduate\_candidates

( student\_id NUMBER(6,0),

last\_name VARCHAR2(75),

first\_name VARCHAR2(75),

credits NUMBER(3, 0),

graduation\_date DATE);

Intrebare: cum pun restrictiile pentru null si foreign key la crearea tabelei? Ca nu am vazut nicaieri in curs

3. Confirm creation of the table using DESCRIBE.

Describe graduate\_candidates

4. Create a new table using a subquery. Name the new table your last name -- e.g., smith\_table.

Using a subquery, copy grad\_candidates into smith\_table.

CREATE TABLE barto\_table

AS ( SELECT \* FROM graduate\_candidates)

5. Insert your personal data into the table created in question 4.

insert into barto\_table values (501, 'Bartolomei', 'Vlad', 30, NULL)

6. Query the data dictionary for each of the following:

• USER\_TABLES

select \* from user\_tables – returneaza (si DESCRIE) toate tabelele pe care userul existent le are in Apex. Cele din sql schema, bd scoala si copiile create, respectiv.

• USER\_OBJECTS

select \* from user\_objects – returneaza (si DESCRIE) toate obiectele detinute de userul apelant.

• USER\_CATALOG or USER\_CAT

select \* from user\_catalog – returneaza numele tuturori tabelelor detinute de userul apelant, precum si tipul tabelelor (la mine, TABLE\_TYPE: TABLE)

In separate sentences, summarize what each query will return.