 



Homework14-3: Managing Constraints Practice Activities

# Vocabulary

Identify the vocabulary word for each definition below.

|  |  |
| --- | --- |
| DISABLE constraint | To deactivate an integrity constraint |
| CASCADE clause | Disables dependent integrity constraints |
| ALTER TABLE | To add, modify, or drop columns from a table |
| ENABLE | To activate an integrity constraint currently disabled |
| DROP constraint | Removes a constraint from a table |
| DROP column | Allows user to delete a column from a table |
| Cascade constraints | Defines the actions the database server takes when a user attempts to delete or update a key to which existing foreign keys point |

# Try It / Solve It

Using Oracle Application Express, click the SQL Workshop tab in the menu bar. Click the Object Browser and verify that you have a table named copy\_d\_clients and a table named copy\_d\_events. If you don’t have these tables in your schema, create them before completing the exercises below.

Here is how the original tables are related. The d\_clients table has a primary key client\_number. This has a primary-key constraint and it is referenced in the foreign-key constraint on the d\_events table.

1. What are four functions that an ALTER statement can perform on constraints?

ADD(MODIFY) , DROP, DISABLE, ENABLE

1. Since the tables are copies of the original tables, the integrity rules are not passed onto the new tables; only the column datatype definitions remain. You will need to add a PRIMARY KEY constraint to the copy\_d\_clients table. Name the primary key copy\_d\_clients\_pk . What is the syntax you used to create the PRIMARY KEY constraint to the copy\_d\_clients.table?

ALTER TABLE copy\_d\_clients

ADD CONSTRAINT copy\_d\_clients\_pk PRIMARY KEY(client\_number);

1. Create a FOREIGN KEY constraint in the copy\_d\_events table. Name the foreign key copy\_d\_events\_fk. This key references the copy\_d\_clients table client\_number column. What is the syntax you used to create the FOREIGN KEY constraint in the copy\_d\_events table?

ALTER TABLE copy\_d\_events

ADD CONSTRAINT copy\_d\_events\_fk FOREIGN KEY (client\_number)

REFERENCES copy\_d\_clients(client\_number);

1. Use a SELECT statement to verify the constraint names for each of the tables. Note that the tablenames must be capitalized.

SELECT \*

FROM user\_constraints

WHERE table\_name = 'COPY\_D\_CLIENTS';

* 1. The constraint name for the primary key in the copy\_d\_clients table is COPY\_D\_CLIENTS\_PK.
  2. The constraint name for the foreign key in the copy\_d\_events table is COPY\_D\_EVENTS\_FK.

1. Drop the PRIMARY KEY constraint on the copy\_d\_clients table. Explain your results.

ALTER TABLE copy\_d\_clients

DROP CONSTRAINT COPY\_D\_CLIENTS\_PK CASCADE;

1. Add the following event to the copy\_d\_events table. Explain your results.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ID | NAME | EVENT\_DATE | DESCRIPTION | COST | VENUE  \_ID | PACKAGE\_ CODE | THEME\_ CODE | CLIENT\_ NUMBER |
| 140 | Cline Bas Mitzvah | 15-Jul-2004 | Church and Private Home formal | 4500 | 105 | 87 | 77 | 7125 |

INSERT INTO copy\_d\_events

(id, name, event\_date, description, cost, venue\_id, package\_code, theme\_code, client\_number)

VALUES

(140, 'Cline Bas Mitzvah', TO\_DATE('15-Jul-2004', 'fmDD-MONTH-YYYY'), 'Church and Private Home formal',4500, 105, 87, 77, 7125);

SELECT \*

FROM copy\_d\_events;

1. Create an ALTER TABLE query to disable the primary key in the copy\_d\_clients table. Then add the values from #6 to the copy\_d\_events table. Explain your results.

ALTER TABLE copy\_d\_clients

DISABLE CONSTRAINT copy\_d\_clients\_pk

INSERT INTO copy\_d\_events

(id, name, event\_date, description, cost, venue\_id, package\_code, theme\_code, client\_number)

VALUES

(140, 'Cline Bas Mitzvah', TO\_DATE('15-Jul-2004', 'fmDD-MONTH-YYYY'), 'Church and Private Home formal',4500, 105, 87, 77, 7125);

🡪in tabel s-a mai adaugat o data valoarea, semn ca PRIMARY KEY a fost dezactivata deoarece deja avem 2 valori de 140 la ID

1. Repeat question 6: Insert the new values in the copy\_d\_events table. Explain your results.

INSERT INTO copy\_d\_events

(id, name, event\_date, description, cost, venue\_id, package\_code, theme\_code, client\_number)

VALUES

(140, 'Cline Bas Mitzvah', TO\_DATE('15-Jul-2004', 'fmDD-MONTH-YYYY'), 'Church and Private Home formal',4500, 105, 87, 77, 7125);

🡪in tabel s-a mai adaugat aceeasi valoare identica, avem 3 valori identice. Acest lucru s-a putut ca urmare a faptului ca PRIMARY KEY a fost dezactivata, astfel la ID avem deja 3 valori de 140.

1. Enable the primary-key constraint in the copy\_d\_clients table. Explain your results.

ALTER TABLE copy\_d\_clients

ENABLE CONSTRAINT copy\_d\_clients\_pk

1. If you wanted to enable the foreign-key column and reestablish the referential integrity between these two tables, what must be done?

ALTER TABLE copy\_d\_events

ENABLE CONSTRAINT copy\_d\_events\_fk;

DELETE FROM copy\_d\_events

WHERE client\_number NOT IN (SELECT client\_number

FROM copy\_d\_clients);

1. Why might you want to disable and then re-enable a constraint?

Dezactivam o constrangere pt a putea introduce niste date in tabel pe care constrangerea nu ne-ar lasa in mod obisnuit sa le introducem, apoi reactivam constrangerea pentru a nu mai putea introduce date care ar forta acea constrangere.

1. Query the data dictionary for some of the constraints that you have created. How does the data dictionary identify each constraint type?

SELECT constraint\_name, table\_name, constraint\_type, status

FROM user\_constraints

WHERE table\_name ='COPY\_D\_CLIENTS';

SELECT constraint\_name, table\_name, constraint\_type, status

FROM user\_constraints

WHERE table\_name ='COPY\_D\_EVENTS';

P-primary key, R-refernces(foreign key);

C-CHECH constraint(including NOT NULL);

U-unique

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