

210.032 – Creating Databases Using SQL (2/17/04)

It is of vital importance that each of the students in IST 210 has a firm understanding of the fundamental components of SQL. There may be times when you are required to create a database but do not have the luxury of using many of the visual tools currently being used to create the table structures. The purpose of this activity is to test your ability to use SQL statements to create a database.

Objectives

After completing this exercise, you should have demonstrated your ability to:

- Create database tables using SQL
- Define a table structure using SQL
- Assign table keys using SQL
- Insert data into a database table using SQL

Assignment

In order to successfully complete this activity, you must demonstrate your ability to generate the SQL statements, which will complete each of the four tasks listed below.

Task 1

Create a table with the following schema:

Table: TEAM		
Column	Type	Length
TEAMID	INTEGER	4
CITY	VARCHAR	25
STATE	CHARACTER	2
OWNER	VARCHAR	40
STADIUM	VARCHAR	40
TEAMNAME	VARCHAR	40

The SQL statement used to create this table should also include the following constraints:

- The primary Key should be TEAMID
- Every attribute has a "NOT NULL" value, except for OWNER and STADIUM, which can both contain NULL Values.

Task 2

Create a second table, named "PLAYERS", with the following schema:

Table: PLAYERS		
Column	Type	Length
PLAYERID	INTEGER	4
TEAMID	INTEGER	4
FNAME	VARCHAR	25
LNAME	VARCHAR	40
JERSEYNUMBER	SMALLINT	2
SALARY	DECIMAL	5

The SQL statement used to create this table should also include the following constraints:

- The primary Key should be PLAYERID
- The TEAMID in the PLAYERS table should be the foreign Key to TEAMID from the TEAM table
- Every attribute has a "NOT NULL" value except JERSEYNUMBER, which can contain NULL values

Task 3

Generate an SQL statement that will insert the following data into the Team table:

TEAMID	CITY	STATE	OWNER	STADIUM	TEAMNAME
1	Philadelphia	PA	Cooke	The Bowl	Brotherly Blazers
2	Los Angeles	CA	Westwood	The Hideout	Hollywood Crew
3	Dallas	TX	Simons	Shootout Stadium	Six Shooters
4	Denver	CO	Lynn	The Cave	Blizzards
5	New York	NY	null	Subway Arena	City Slickers

Task 4

Generate an SQL statement that will insert the following data into the PLAYERS table:

PLAYERID	TEAMID	FNAME	LNAME	JERSEYNUMBER	SALARY
1	5	Joshua	Logan	25	45000
2	2	Homer	Hill	11	60000
3	1	Lilith	Peters	3	55000
4	3	Lisa	Frymoyer	32	55000
5	5	Harry	Hamilton	11	50000
6	4	Merissa	Jones	18	45000
7	2	Chris	Zeiser	20	50000

Directions

To complete this activity you will need to:

- Generate the SQL statements needed to complete the four tasks listed above.
- Test each of the statements within your course database space.
- Open up a word processing document and number each of your SQL statements according to the tasks numbered above. For example, place the first SQL statement under the number 1.
- E-mail your instructor the attached word processing document containing the SQL statements.

Resources

To complete this activity, you may wish to reference the following resources:

- SQL textbook (Or other resource as identified by your instructor)
- Classic Sales Database Schema (Found in the resources tab of the Online IST 210 Course Content Interface)
- Net DB2 or another database application as identified by your instructor.