In The Lab (Lab 2)

StoreCo Database Tables

Table name: EMPLOYEE **Database name: Ch03_StoreCo**

EMP_CODE	EMP_TITLE	EMP_LNAME	EMP_FNAME	EMP_INITIAL	EMP_DOB	STORE_CODE
1	Mr.	Williamson	John	W	21-May-64	3
2	Ms.	Ratula	Nancy		09-Feb-69	2
3	Ms.	Greenboro	Lottie	R	02-Oct-61	4
4	Mrs.	Rumpersfro	Jennie	S	01-Jun-71	5
5	Mr.	Smith	Robert	L	23-Nov-59	3
6	Mr.	Renselaer	Cary	A	25-Dec-65	1
7	Mr.	Ogallo	Roberto	S	31-Jul-62	3
8	Ms.	Johnsson	Elizabeth	I	10-Sep-68	1
9	Mr.	Eindsmar	Jack	W	19-Apr-55	2
10	Mrs.	Jones	Rose	R	06-Mar-66	4
11	Mr.	Broderick	Tom		21-Oct-72	3
12	Mr.	Washington	Alan	Y	08-Sep-74	2
13	Mr.	Smith	Peter	N	25-Aug-64	3
14	Ms.	Smith	Sherry	H	25-May-66	4
15	Mr.	Olenko	Howard	U	24-May-64	5
16	Mr.	Archialo	Barry	V	03-Sep-60	5
17	Ms.	Grimaldo	Jeanine	K	12-Nov-70	4
18	Mr.	Rosenberg	Andrew	D	24-Jan-71	4
19	Mr.	Rosten	Peter	F	03-Oct-68	4
20	Mr.	Mckee	Robert	S	06-Mar-70	1
21	Ms.	Baumann	Jennifer	A	11-Dec-74	3

Table name: STORE

STORE_CODE	STORE_NAME	STORE_YTD_SALES	REGION_CODE	EMP_CODE
1	Access Junction	1003455.76	2	8
2	Database Corner	1421987.39	2	12
3	Tuple Charge	986783.22	1	7
4	Attribute Alley	944568.56	2	3
5	Primary Key Point	2930098.45	1	15

Table name: REGION

REGION_CODE	REGION_DESCRIPT
1	East
2	West

1. **Open a text editor and type the following answers for each table, identifying the primary key and the foreign key(s) - write *None* if there is no foreign key. Be sure to include the Headers (Table, Primary Key, Foreign Keys) – tab between table name, pk, and fk.**

TABLE	PRIMARY KEY	FOREIGN KEY(S)
EMPLOYEE		
STORE		
REGION		

2. **Still in your text editor, answer whether each of the tables exhibits referential integrity (i.e., does every foreign key in the one table have a matching primary key in the second table)? Answer yes or no and then explain your answer (i.e., a foreign key to what table). Type *NA* (Not Applicable) if the table does not have a foreign key. Again, include the table headers.**

TABLE	REFERENTIAL INTEGRITY	EXPLANATION
EMPLOYEE		
STORE		
REGION		

3. **Now, download StoreCoTables.sql from Blackboard, which will create the 3 tables below for Region, Store, and Employee. Open the file and observe how I've created my foreign keys. Copy to your turing account and execute (source StoreCoTables.sql):**

Employee Table

Attribute	Description
EMP_CODE	integer
EMP_TITLE	variable character, max of 4
EMP_LNAME	variable character, max of 15
EMP_FNAME	variable character, max of 15
EMP_INITIAL	variable character, max of 1
EMP_DOB	date/time
STORE_CODE	integer

Store Table

Attribute	Description
STORE_CODE	integer
STORE_NAME	variable character, max of 20
STORE_YTD_SALES	numeric
REGION_CODE	integer
EMP_CODE	integer

Region Table

Attribute	Description
REGION_CODE	integer
REGION_DESCRIPT	variable character, max of 20

4. **DESCRIBE each table to verify your tables have been created:**
   a) **DESCRIBE EMPLOYEE_Lab2;**
   b) **DESCRIBE STORE;**
   c) **DESCRIBE REGION;**

5. **Now, download the text file StoreCoRecords.sql from Blackboard and upload to turing. Execute the script file to populate the tables in the database.**

6. **Redirect shell output to a script file, *yourLastName*Lab2.txt**
   a. From the MySQL monitor, type `tee` *`yourLastName`*`Lab2.txt` which will begin redirecting a copy of everything in your shell to a file named *`yourLastName`*`Lab2.txt`.
   b. Complete instruction 7. below
   c. Once you are done with 7., type `notee` at the mysql prompt to stop the script.
   d. Open *`yourLastName`*`Lab2.txt` in a text editor and clean up the output.
   e. NOTE: WHEN YOU ARE FINISHED WITH QUESTION 7,Include YOUR NAME AT THE TOP OF THE FILE. ALSO, COPY AND PASTE THE ANSWERS TO QUESTIONS 1 & 2 AT THE BEGINNING OF YOUR FILE, BELOW YOUR NAME. BE SURE TO INCLUDE THE QUESTION NUMBERS 1. & 2., AS WELL AS 7A-G.

7. **Answer the following questions by running queries. I highly recommend you create a file Lab2Queries.sql and verify your queries run. This will make it much easier to correct your mistakes and re-run.**
   a. Identify all stores located in the East
      i. select STORE_NAME from STORE_Lab2
         natural join REGION_Lab2
         where REGION_DESCRIPT = 'East';
   b. Identify all stores located in the West
   c. Identify all employee names of those who work at the following (HINT: look at part d. – you need to construct similar joins in order to get ALL employee names. If you do a natural join, you will only list one name).
      i. Access Junction
      ii. Database Corner
      iii. Tuple Charge
      iv. Attribute Alley
      v. Primary Key Point
   d. Identify the names of all employees who work in the East
      i. select EMP_LNAME
         from EMPLOYEE_Lab2 left outer join STORE_Lab2
         on EMPLOYEE_Lab2.STORE_CODE =
         STORE_Lab2.STORE_CODE
         natural join REGION_Lab2
         where REGION_DESCRIPT = 'East';
   e. Identify the names of all employees who work in the West
   f. Identify the names and birthdates of all employees who work in the East who are older than 45
   g. Identify the names and birthdate of all employees who work in the West and are younger than 50

8. **On Blackboard, submit your script (`*yourLastName*Lab2.txt`). If you created a script file for the SQL in question 7., then also submit your .sql file.**