

## Exercise 9 Creating and Querying Database Tables

**\*DO NOT run any of the script for this exercise!**

1. What is a “constraint” as it relates to data integrity?
2. What are the limitations of constraints that may be applied at the column level and at the table level?
3. Global Fast Foods has been very successful this past year and has opened several new stores. They need to add a table to their database to store information about each of their store’s locations. The owners want to make sure that all entries have an identification number, date open, address, and city and that no other entry in the table can have the same email address. The identification number will be ranging from 0001 to 9999 and it must be an integer. Manager is one of the staff and the detailed information can be obtained from STAFF table. If the date open is not stated, take today’s date as the default. Use the following table to create the tables needed.

Global Fast Foods – global_loc table				
Name	Type	Length	Nullable / Unique	Default
ID	Char	4	NN	
Name	VarChar2	20		
Date_Opened	Date		NN	sysdate
Address	VarChar2	20	NN	
City	VarChar2	20	NN	
Zip	Number	5		
Phone	VarChar2	15		
Email	VarChar2	20	UK	
Mgr_ID	Number	4	FK	
E_Contact	VarChar2	15		

- (a) Write the CREATE TABLE statement for the Global\_loc table to define the constraints at the column level.
- (b) Execute the CREATE TABLE statement in SQLPlus. Explain why the statement cannot be executed. Fix the error.

ID	Name	Date_Opened	Address	City	Zip	Phone	Email	Mgr_ID	E_Contact
2589	O'briens	09/13/2010	198,Old Shell Rd	Mobile	36608	210-098-1298	obriens@glbfood.com	7890	910-999-1234
4587	Ruby Tuesday	07/11/2000	900, Orange Grove	Mobile	36609	211-100-1111	rubytues@glbfood.com	9022	911-000-9876
5651	Tabu	08/08/2011	1, Spanish Trail	Dothan	36611	211-555-2414	tabu@glbfood.com	8001	921-222-6456
0569	Red Robster Dothan	12/24/2011	987, Premium St	Dothan	36611	899-120-2222	redrobsterDN@glbfood.com	9009	233-012-9898
0580	Red Robster GS	02/01/2012	7, Mm St	Gulf Shores	40983	899-120-2222	redrobsterGS@glbfood.com	9011	545-012-9822

- (c) Write the SQL statements that will enter the *all* data rows into the global\_loc. Confirm the records have been added.
- (d) Write a SQL statement to list all the stores which were opened since Jan 2011.
- (e) Write a SQL statement to list the numbers of store for each city, sort by the city in descending order.