EXERCISE 12

Intro to Constraints; NOT NULL and UNIQUE Constraints

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 opened, address, and city and that no other entry in the table can have the same email address. Based on this information, answer the following questions about the global_locations table. Use the table for your answers.

Global Fast Foods global_locations Table						
NAME	TYPE	LENGTH	PRECISION	SCALE	NULLABLE	DEFAULT
Id						
name						
date_opened						
address						
city						
zip/postal code						
phone						
email						
manager_id						
Emergency contact						

1. What is a "constraint" as it relates to data integrity?

A constraint is a rule applied to tables & columns to enforce data integrity ensuring valid and consistant data.
eg) NOT NULL.

2. What are the limitations of constraints that may be applied at the column level and at the table level?

Column level can only refer to current column. Table level can reference multiple columns needed for composite constraint like a multi column primary key.

3. Why is it important to give meaningful names to constraints?

Helps with readability, maintainance and easier and debugging when constraint violations occur.

4. Based on the information provided by the owners, choose a datatype for each column. Indicate the length, precision, and scale for each NUMBER datatype.

Egs) Location_id , number (5) ; location_name varchar(50)
city varchar2(30) ; postal_code (10) (nullable] ;
latitude_no (9,6) ; longitude_number(9,6) [both are nullable]

5. Use "(nullable)" to indicate those columns that can have null values.

. postal_code, latitude, longitude are marked as nullable.

6. Write the CREATE TABLE statement for the Global Fast Foods locations table to define the constraints at the column level.

```
create table locations (
locations_id number(s) primary key,
location_name varchar2(50) not null, city varchar(30) not
postal_code varchar(10), latitude number(9,6), longitude number
(9,6));
```

7. Execute the CREATE TABLE statement in Oracle Application Express.

SQL workshops ~~one~~ > SQL commands, area and paste or run the create table statements.

8. Execute a DESCRIBE command to view the Table Summary information.

```
desc locations;
```

9. Rewrite the CREATE TABLE statement for the Global Fast Foods locations table to define the UNIQUE constraints at the table level. Do not execute this statement.

NAME	TYPE	LENGTH	PRECISION	SCALE	NULLABLE	DEFAULT
id	number	4				
loc_name	varchar2	20			X	
	date					
address	varchar2	30				
city	varchar2	20				
zip_postal	varchar2	20			X	
phone	varchar2	15			X	
email	varchar2	80			X	
manager_id	number	4			X	
contact	varchar2	40			X	

```
create table global_locations( id_no (4) constraints PK_
locations primary key, loc_name varchar2 (20),
data_opened, data constraint nn_data_open notnull,
address varchar2 (30) constraint nn_address not null,
city varchar (20) constrant nn_city notnull, zip_postal
varchar2 (20), phone varchar2(20), phone varchar2 (15),
email varchar2 (80), manager_id number contact varchar2
(40) constraint uq_email unique(email));
```

Evaluation Procedure	Marks awarded
Query(5)	5
Execution (5)	5
Viva(5)	5
Total (15)	15
Faculty Signature	