 



Homework

* 1. : Intro to Constraints; NOT NULL and UNIQUE Constraints Practice Activities

# Vocabulary

Identify the vocabulary word for each definition below.

|  |  |
| --- | --- |
| Unique constraint | Every value in a column or set of columns (a composite key) must be unique |
| NOT NULL constraint | For every row entered into the table, there must be a value for that column |
| Primary key | Constraint ensures that the column contains no null values and uniquely identifies each row of the table |
| CHECK constraint | Specifies a condition for a column that must be true for each row of data |
| REFERENCES | Identifies that table and column in the parent table |
| Composite unique key | An integrity constraint that requires every value in a column or set of columns be unique |
| FOREIGN KEY | Designates a column (child table) that establishes a relationship between a primary key in the same table and a different table (parent table) |
| TABLE-LEVEL constraint | References one or more columns and is defined separately from the definitions of the columns in the table |
| Constraint | Database rule. |
| Column-level constraint | Database rule that references a single column |

# Try It / Solve It

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 | NUMBER | 3 | 0 | 0 | NO |  |
| name | VARCHAR2 | 30 |  |  | NULLABLE |  |
| date\_opened | DATE | 8 |  |  | NO |  |
| address | VARCHAR2 | 30 |  |  | NO |  |
| city | VARCHAR2 | 30 |  |  | NO |  |
| zip/postal code | NUMBER | 4 | 0 | 0 | NULLABLE |  |
| phone | NUMBER | 8 | 0 | 0 | NULLABLE |  |
| email | VARCHAR2 | 30 | 0 | 0 | UNIQUE |  |
| manager\_id | NUMBER | 3 | 0 | 0 | NULLABLE |  |
| Emergency contact | NUMBER | 8 | 0 | 0 | NULLABLE |  |

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

O constrangere este o regula care se aplica pentru a NU introduce date eronate in tabel.

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

O constrangere la nivelul unei coloane se refera la o singura coloana.

Constrangerile care se definesc pt mai mult de o coloana trebuie specificate la nivelul tabelei.Constrangerea NOT NULL trebuie specificata la nivelul fiecarei coloane unde dorim sa o aplicam. Constrangerile INIQUE, PRIMARY KEY, FOREIGN KEY, CHECK pot fi definite atat la nivelul coloanei, cat si la nivelul tabelului.

Dupa cuvantul CONSTRAINT trebuie sa scriu obligatoriu numele constrangerii.

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

Este important numele constrangerii pentru a intelege de ce tip este si pentru care coloana se aplica.

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

In table

1. Use “nullable” to indicate those columns that can have null values.

In table

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

CREATE table global\_locations

(id NUMBER(3) CONSTRAINT id\_pk PRIMARY KEY,

name VARCHAR2(30),

date\_opened DATE CONSTRAINT date\_opened\_nn NOT NULL,

adress VARCHAR2(30) CONSTRAINT adress\_nn NOT NULL,

city VARCHAR2(30) CONSTRAINT city\_nn NOT NULL,

zip NUMBER(4),

phone NUMBER(8),

email VARCHAR2(30) CONSTRAINT email\_uk UNIQUE,

manager\_id NUMBER(3),

Emergency\_contact NUMBER(8));

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

Executat in APEX

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

DESCRIBE global\_locations;

1. 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.

CREATE table global\_locations

(id NUMBER(3) CONSTRAINT id\_pk PRIMARY KEY,

name VARCHAR2(30),

date\_opened DATE CONSTRAINT date\_opened\_nn NOT NULL,

adress VARCHAR2(30) CONSTRAINT adress\_nn NOT NULL,

city VARCHAR2(30) CONSTRAINT city\_nn NOT NULL,

zip NUMBER(4),

phone NUMBER(8),

email VARCHAR2(30),

manager\_id NUMBER(3),

Emergency\_contact NUMBER(8)

COnSTrAINT email\_uk UNIQUE(email));

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