**Ch3-WPC-Create-Insert**

**In-Class:** Chapter 3 SQL CREATE TABLE and INSERT INTO (10 points) - In-Class \_\_\_ \_\_\_ \_\_

* This is a simplified version of the Access Workbench Exercise in the textbook. Follow along in the textbook for more detailed descriptions and pictures, but only the columns and data shown in this assignment are needed.
* Use your WPC.accdb database to create tables and insert data using Microsoft Access SQL.

Your WPC.accdb database from Chapter 2 should already contain the following tables:

* DEPARTMENT (DepartmentName, BudgetCode, OfficeNumber, Phone)
* EMPLOYEE (EmployeeNumber, FirstName, LastName, *Department*, Phone, Email)
* PROJECT (ProjectID, ProjectName, *Department*, MaxHours, StartDate, EndDate)
* ASSIGNMENT (*ProjectID*, *EmployeeNumber*, HoursWorked)

With the following referential integrity constraints:

* Department in EMPLOYEE must exist in DepartmentName in DEPARTMENT.
* Department in PROJECT must exist in DepartmentName in DEPARTMENT.
* ProjectID in ASSIGNMENT must exist in ProjectID in PROJECT.
* EmployeeNumber in ASSIGNMENT must exist in EmployeeNumber in EMPLOYEE.

In this assignment, you will insert the following tables and referential integrity checks into the WPC database:

* COMPUTER (SerialNumber, Make, Model, ProcessorType, ProcessorSpeed, MainMemory, DiskSize)
* COMPUTER\_ASSIGNMENT (*SerialNumber*, *EmployeeNumber*, DateAssigned, DateReassigned)
* SerialNumber in COMPUTER\_ASSIGNMENT must exist in SerialNumber in COMPUTER.
* EmployeeNumber in COMPUTER\_ASSIGNMENT must exist in EmployeeNumber in EMPLOYEE.

For examples to follow, see the CREATE TABLE and INSERT INTO statements in the textbook for creating the other WPC tables and inserting the data, especially the table CONSTRAINTs for PRIMARY KEYs and FOREIGN KEYs. But **the following features don’t work in Access SQL**, so leave them out or modify them as shown:

* IDENTITY (1, 1) does not work, so IDENTITY by itself should be used
* DEFAULT and UNIQUE do not work, so leave them out
* Numeric (8, 2) does not work, so Numeric by itself should be used
* ON UPDATE CASCADE, ON UPDATE NO ACTION, ON DELETE CASCADE, and ON DELETE NO ACTION do not work, so leave them out

**Create-Computer:** Use Microsoft Access SQL to create the COMPUTER table with the following column characteristics:

* Use type Int for the SerialNumber, so this primary and its foreign key are whole numbers.
* Use type Numeric for the ProcessorSpeed, so it has decimal places.
* Create, run, and save this SQL query as Create-Computer.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Column Name** | **Type** | **Key** | **Required** | **Remarks** |
| SerialNumber | Int | Primary Key | Yes | Long Integer |
| Make | Text (12) | No | Yes |  |
| Model | Text (24) | No | Yes |  |
| ProcessorType | Text (24) | No | No |  |
| ProcessorSpeed | Numeric | No | Yes | Double |
| MainMemory | Text (15) | No | Yes |  |
| DiskSize | Text (15) | No | Yes |  |

**Create-Comp-Assign:** Use Microsoft Access SQL to create the COMPUTER\_ASSIGNMENT table with the following column characteristics:

* Use type Int for the SerialNumber and EmployeeNumber, so these primary and foreign keys are whole numbers.
* Create, run, and save this SQL query as Create-Comp-Assign.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Column Name** | **Type** | **Key** | **Required** | **Remarks** |
| SerialNumber | Int | Primary Key,  Foreign Key | Yes | Long Integer |
| EmployeeNumber | Int | Primary Key,  Foreign Key | Yes | Long Integer |
| DateAssigned | Date/Time | Primary Key | Yes | Medium Date |
| DateReassigned | Date/Time | No | No | Medium Date |

**Insert-Computer:** Use Microsoft Access SQL to enter the following data in the COMPUTER table:

* Create, run, and save each of these SQL queries as Insert-Computer-1, -2, and -3.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Serial Number** | **Make** | **Model** | **ProcessorType** | **Processor Speed** | **Main Memory** | **Disk Size** |
| 9871234 | HP | Compaq dx7500 | Intel Core 2 Duo | 2.80 | 2.0 GBytes | 160 GBytes |
| 9871245 | HP | Compaq dx7500 | Intel Core 2 Duo | 2.80 | 2.0 GBytes | 160 GBytes |
| 9871256 | HP | Compaq dx7500 | Intel Core 2 Duo | 2.80 | 2.0 GBytes | 160 GBytes |

**Insert-Comp-Assign:** Use Microsoft Access SQL to enter the following data in the COMPUTER\_ASSIGNMENT table:

* Create, run, and save each of these SQL queries as Insert-Comp-Assign-1, -2, and -3.

|  |  |  |  |
| --- | --- | --- | --- |
| **SerialNumber** | **EmployeeNumber** | **DateAssigned** | **DateReassigned** |
| 9871234 | 11 | 15-Sep-2014 | 21-Oct-2014 |
| 9871245 | 12 | 15-Sep-2014 | 21-Oct-2014 |
| 9871256 | 4 | 15-Sep-2014 |  |