**Assignment instructions**

**Task 1: Create a Database**

1. Create a new database named "Demo".

**Task 2: Create Schemas**

1. Create the following schemas:
   * HR
   * Production
   * Sales
   * State

**Task 3: Create Tables**

1. Create a table named "Customers" with the following columns:
   * CustomerID (integer, primary key)
   * FirstName (varchar, maximum length 50)
   * LastName (varchar, maximum length 50)
   * Email (varchar, maximum length 100)
   * Age (integer)
2. Create a table named "Products" with the following columns:
   * ProductID (integer, primary key)
   * ProductName (varchar, maximum length 100)
   * Price (decimal, precision 10, scale 2)
   * Quantity (integer)
   * Category (varchar, maximum length 50)

**Task 4: Add Constraints**

1. Add a foreign key constraint to the "Products" table that references the "CustomerID" column of the "Customers" table.
2. Add a check constraint to the "Age" column of the "Customers" table to ensure that the age is greater than or equal to 18.
3. Add a unique constraint to the "ProductName" column of the "Products" table to ensure that each product name is unique.

**Task 5: The dropping tables**

1. Drop the tables created in **Task 3.**

**Task 6: Execute the Demo SQL Script attached**

**Questions for this assignment**

1. Question 1: How can you add a check constraint to the "Age" column of the "Customers" table to ensure that the age is greater than or equal to 18?

Insert your answer here:

1. How can you add a unique constraint to the "ProductName" column of the "Products" table to ensure that each product name is unique?

Insert your answer here:

**How did you do?**

Compare the instructor's example to your own

#### Instructor example



[Trevoir Williams](https://www.udemy.com/user/trevoirwilliams/)

**Solutions**

CREATE DATABASE AdventureWorksDB;

CREATE TABLE Customers (

CustomerID INT PRIMARY KEY,

FirstName VARCHAR(50),

LastName VARCHAR(50),

Email VARCHAR(100),

Age INT

);

CREATE TABLE Products (

ProductID INT PRIMARY KEY,

ProductName VARCHAR(100),

Price DECIMAL(10, 2),

Quantity INT,

Category VARCHAR(50)

);

ALTER TABLE Products

ADD CONSTRAINT FK\_Products\_Customers

FOREIGN KEY (CustomerID)

REFERENCES Customers(CustomerID);

Question 1: How can you add a check constraint to the "Age" column of the "Customers" table to ensure that the age is greater than or equal to 18?

To add a check constraint to the "Age" column of the "Customers" table, ensuring that the age is greater than or equal to 18, you can use the following SQL statement:

ALTER TABLE Customers

ADD CONSTRAINT CHK\_Age

CHECK (Age >= 18);

How can you add a unique constraint to the "ProductName" column of the "Products" table to ensure that each product name is unique?

To add a unique constraint to the "ProductName" column of the "Products" table, ensuring that each product name is unique, you can use the following SQL statement:

ALTER TABLE Products

ADD CONSTRAINT UQ\_ProductName

UNIQUE (ProductName);

#### Your submission



[Learning Team Packt](https://www.udemy.com/user/learning-team-packt/)

1. Did you experience any challenges?

Answer:

1. Question 1: How can you add a check constraint to the "Age" column of the "Customers" table to ensure that the age is greater than or equal to 18?

Answer:

1. How can you add a unique constraint to the "ProductName" column of the "Products" table to ensure that each product name is unique?

Answer: