شركـــة تحالــف الإمـــارات للحــلـــول التـقـنـيـــة ذ.م.م.
TAHALUF AL EMARAT TECHNICAL SOLUTIONS L.L.C.

Database

Tahaluf Training Center 2021

شركـــة تحالــف الإمـــارات للحــلـــول التـقـنـيـــة ذ.م.م.
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Day 2

1 SELECT Statements

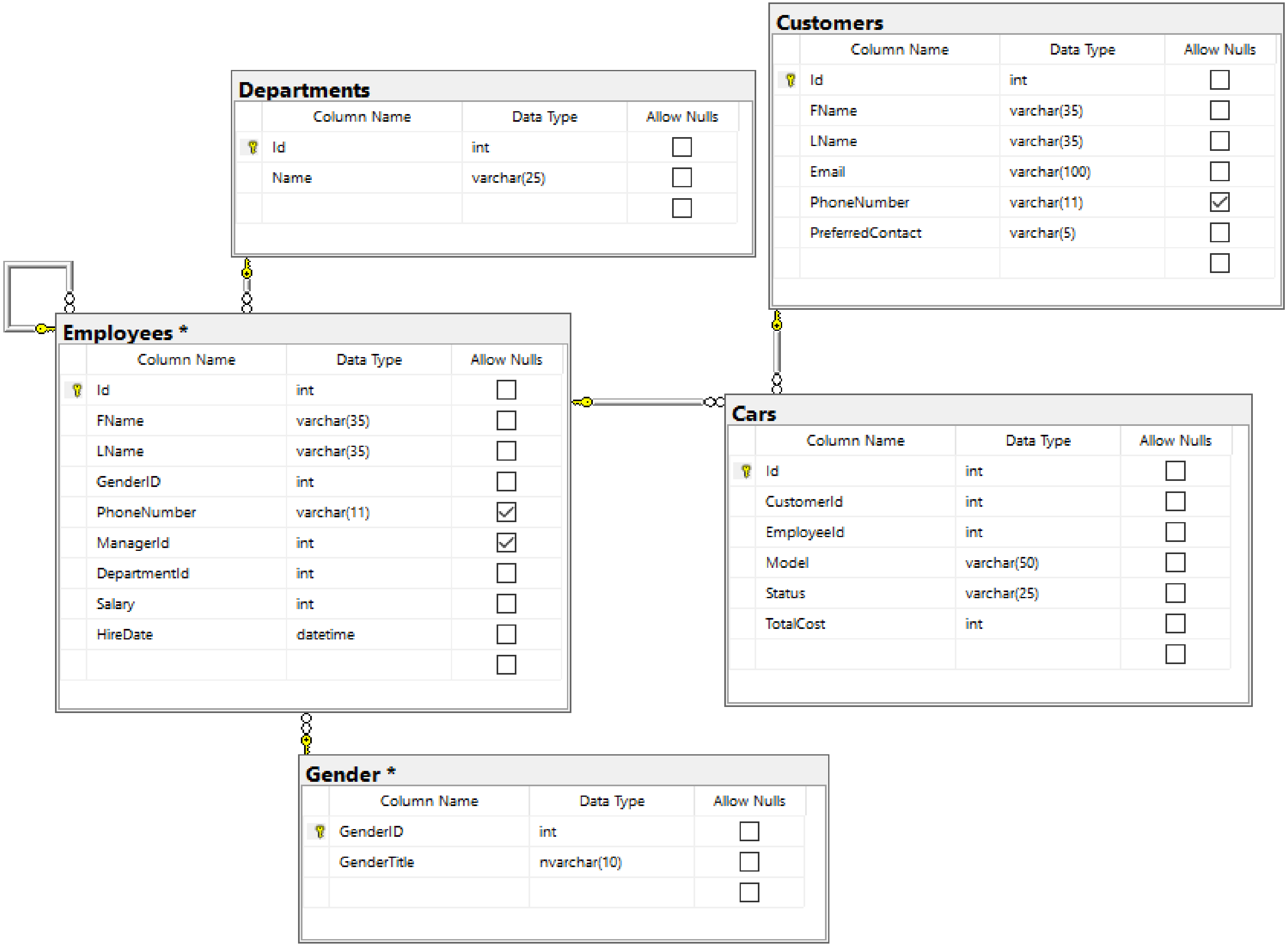
2 INSERT INTO Statement

3 DELETE Statement SQL

4 SQL TOP, LIMIT

5 SQL FUNCTIONS - COUNT(), AVG(), SUM(), MIN() and MAX()

Proposed Project during the course



Departments

	Column Name	Data Type	Allow Nulls
🔑	Id	int	☐
	Name	varchar(25)	☐
			☐

Customers

	Column Name	Data Type	Allow Nulls
🔑	Id	int	☐
	FName	varchar(35)	☐
	LName	varchar(35)	☐
	Email	varchar(100)	☐
	PhoneNumber	varchar(11)	☑
	PreferredContact	varchar(5)	☐
			☐

Employees *

	Column Name	Data Type	Allow Nulls
🔑	Id	int	☐
	FName	varchar(35)	☐
	LName	varchar(35)	☐
	GenderID	int	☐
	PhoneNumber	varchar(11)	☑
	ManagerId	int	☑
	DepartmentId	int	☐
	Salary	int	☐
	HireDate	datetime	☐
			☐

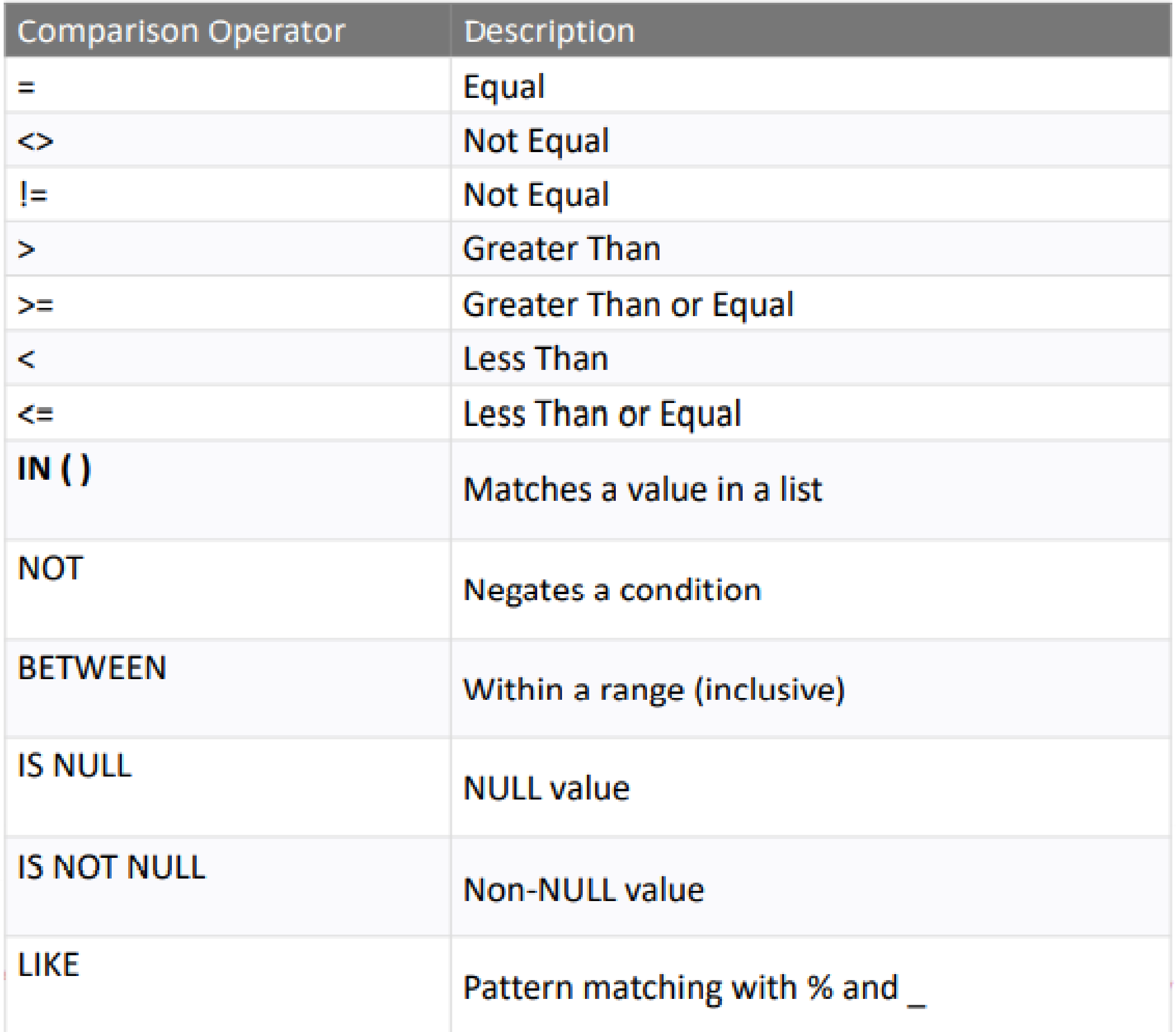
Cars

	Column Name	Data Type	Allow Nulls
🔑	Id	int	☐
	CustomerId	int	☐
	EmployeeId	int	☐
	Model	varchar(50)	☐
	Status	varchar(25)	☐
	TotalCost	int	☐
			☐

Gender *

	Column Name	Data Type	Allow Nulls
🔑	GenderID	int	☐
	GenderTitle	nvarchar(10)	☐
			☐

Comparison Operator



Comparison Operator	Description
=	Equal
<>	Not Equal
!=	Not Equal
>	Greater Than
>=	Greater Than or Equal
<	Less Than
<=	Less Than or Equal
IN ( )	Matches a value in a list
NOT	Negates a condition
BETWEEN	Within a range (inclusive)
IS NULL	NULL value
IS NOT NULL	Non-NULL value
LIKE	Pattern matching with % and _

Select Statement

```
SELECT 'FirstName LastName

SELECT 'Day1ofTraining', 5*3

SELECT 7*4

SELECT(7-4)*8

SELECT 'SaratogaHospital''sSQLTrainingClass'
```

Select Statement

```
SELECT NationalIDNumber
FROM HumanResources.Employee
```

```
SELECT NationalIDNumber, JobTitle
FROM HumanResources.Employee
```

```
SELECT TOP 20 PERCENT
NationalIDNumber, JobTitle,
BirthDate
FROM HumanResources.Employee
```

Where Statement

```sql
SELECT FirstName, LastName
FROM Person.Person
WHERE FirstName = 'Mark'

SELECT TOP 100*
FROM Production.Product
WHERE ListPrice <> 0.00

SELECT *
FROM Sales.vIndividualCustomer
WHERE CountryRegionName =
'Australia' OR
(PhoneNumberType = 'Cell' AND
EmailPromotion = 0)
```

Where and Like Statement

```
SELECT *
FROM
HumanResources.vEmployeeDepartment
WHERE StartDate BETWEEN '7/1/2000'
AND '6/30/2002'
```

```
SELECT *
FROM Sales.vIndividualCustomer
WHERE LastName LIKE 'A%'
```

```
SELECT *
FROM Sales.vIndividualCustomer
WHERE LastName LIKE '%a
```

Day 2

1 SELECT Statements

2 **INSERT INTO Statement**

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INSERT INTO Statement

The first way specifies both the column names and the values to be inserted:

```
INSERT INTO table_name (column1, c
olumn2, column3, ...)
VALUES (value1, value2, value3,
...);
```

The second way for adding values for all the columns of the table, but make sure the order of the values is in the **same order** as the columns in the table

```
INSERT INTO table_name
VALUES (value1, value2, value3,
...);
```

INSERT INTO Statement

```sql
INSERT INTO Production.UnitMeasure
VALUES (N'FT2', N'Square Feet ', '20080923'),
       (N'Y', N'Yards', '20080923')
    , (N'Y3', N'Cubic Yards', '20080923');
```

```sql
INSERT INTO Production.UnitMeasure
VALUES (N'FT', N'Feet',
'20080414');
```

Common mistake with the insert statement

1. Mandatory value missing for a NOT NULL column

2. Duplicate value violating any unique or primary key constraint

3. Any value violating a CHECK constraint

4. Referential integrity maintained for foreign key constraint

5. Data type mismatches or values too wide to fit in column

Day 2

1 SELECT Statements

2 INSERT INTO Statement

3 **DELETE Statement SQL**

4 SQL TOP, LIMIT

5 SQL FUNCTIONS - COUNT(), AVG(), SUM(), MIN() and MAX()

Delete Statement

Delete All records in a table

```
DELETE FROM
Sales.SalesPersonQuotaHistory;
```

Limiting the Rows Deleted

```
DELETE FROM Production.ProductCostHistory
WHERE StandardCost > 1000.00;
```

Using TOP to limit the number of rows deleted

```
DELETE TOP (20) FROM
Purchasing.PurchaseOrderDetail WHERE
DueDate < '20020701';
```

Day 2

1 SELECT Statements

2 INSERT INTO Statement

3 DELETE Statement SQL

4 **SQL TOP, LIMIT**

5 SQL FUNCTIONS - COUNT(), AVG(), SUM(), MIN() and MAX()

Top, Limit Statement

```
SELECT TOP number|percent
column_name(s)
FROM table_name
WHERE condition;
```

```
SELECT TOP 3 * FROM
Sales.Customer;
```

```
SELECT TOP 50 PERCENT * FROM
Sales.Customer;
```

Day 2

1 SELECT Statements

2 INSERT INTO Statement

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4 SQL TOP, LIMIT

5 **SQL FUNCTIONS - COUNT(), AVG(), SUM(), MIN() and MAX()**

MIN()

```
SELECT MIN(column_name)
FROM table_name
WHERE condition;
```

```
SELECT MIN(StandardPrice) AS
SmallestPrice
FROM Purchasing.ProductVendor;
```

MAX()

```
SELECT MAX(column_name)
FROM table_name
WHERE condition;
```

```
SELECT MAX(StandardPrice) AS
SmallestPrice
FROM Purchasing.ProductVendor;
```

SUM()

```
SELECT SUM(column_name)
FROM table_name
WHERE condition;
```

```
SELECT SUM(StandardPrice)
FROM Purchasing.ProductVendor;
```

AVG()

```
SELECT AVG(column_name)
FROM table_name
WHERE condition;
```

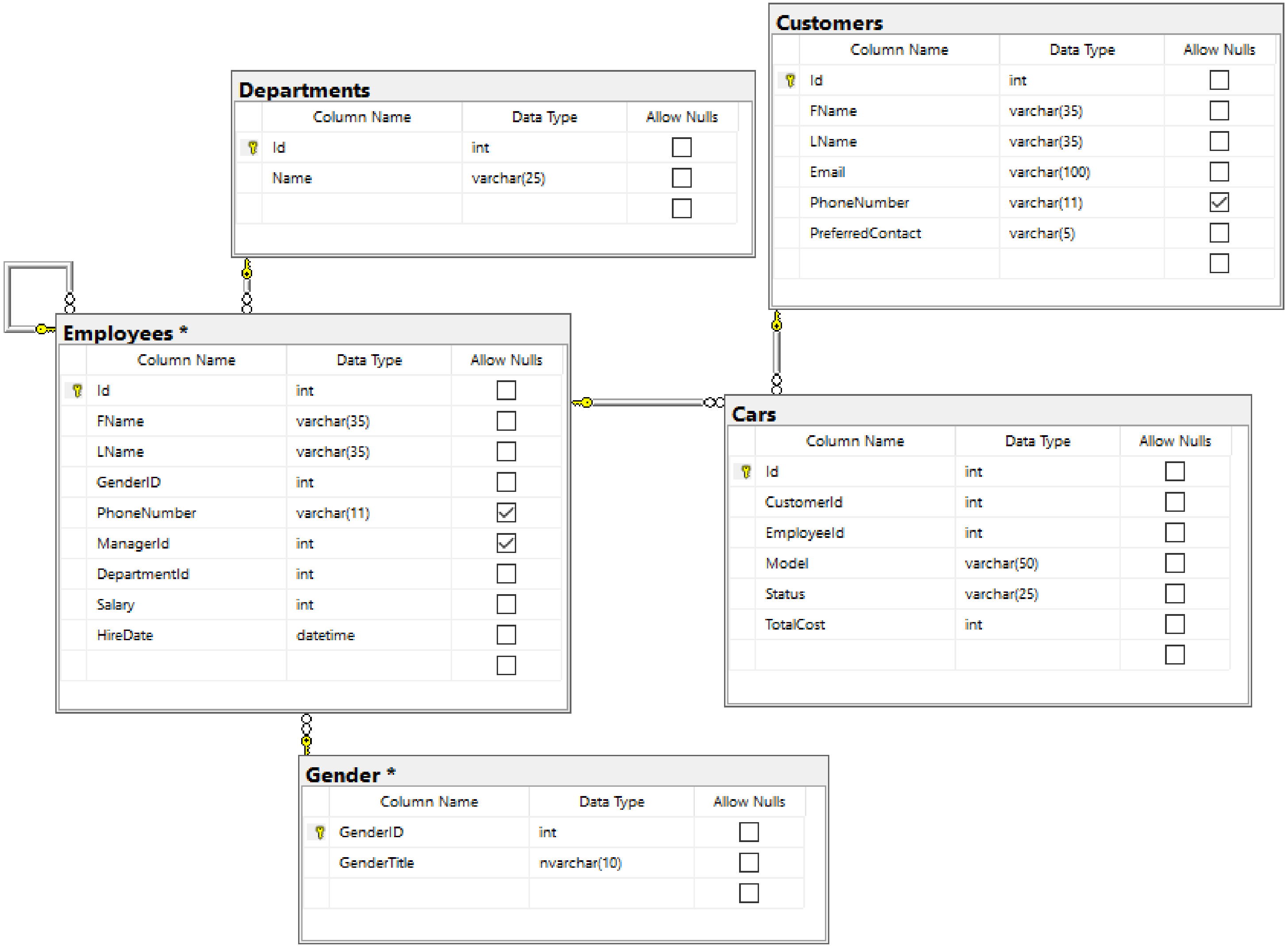
```
SELECT AVG(StandardPrice)
FROM Purchasing.ProductVendor ;
```

COUNT()

```
SELECT COUNT(column_name)
FROM table_name
WHERE condition;
```

```
SELECT COUNT(ProductID)
FROM Purchasing.ProductVendor;
```

Task for Day Two
Populate tables with data, using the insert, update, delete, select commands



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Salary	int	□
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		□

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TotalCost	int	□
		□

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Column Name	Data Type	Allow Nulls
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GenderTitle	nvarchar(10)	□
		□