03. DB-Basics-Built-in-functions-Exercises

/\* 01FindNamesOfAllEmployeesByFirsName \*/

SELECT FirstName, LastName

FROM Employees

WHERE FirstName LIKE 'Sa%'

/\* 02FindNamesOfAllEmployeesByLastName \*/

SELECT FirstName, LastName

FROM Employees

WHERE LastName LIKE '%ei%'

/\* 03FindFirsNamesOffAllEmployees \*/

SELECT FirstName

FROM Employees

WHERE (DepartmentID = 3 OR DepartmentID = 10) AND HireDate BETWEEN '1995/01/01' AND '2005/12/31'

/\* 04FindAllEmployeesExceptEngineers \*/

SELECT FirstName, LastName

FROM Employees

WHERE JobTitle NOT LIKE '%engineer%'

/\* 05FindTownsWithNameLength \*/

SELECT [Name]

FROM Towns

WHERE [Name] LIKE '\_\_\_\_\_' OR [Name] LIKE '\_\_\_\_\_\_'

ORDER BY [Name]

--In Judge must be paste one query

SELECT [Name]

FROM Towns

WHERE LEN([Name]) = 5 OR LEN([Name]) = 6

ORDER BY [Name]

/\* 06FindTownsStartingWith \*/

SELECT \* FROM Towns

WHERE [Name] LIKE '[MKBE]%'

ORDER BY [Name]

/\* 07FindTownsNotStartingWith \*/

SELECT \* FROM Towns

WHERE [Name] LIKE'[^RBD]%'

ORDER BY [Name]

/\* 08CreateViewEmployeesHiredAfter2000Year \*/

CREATE VIEW V\_EmployeesHiredAfter2000 AS

SELECT FirstName, LastName

FROM Employees

WHERE HireDate > '2000-12-31'

--In Judge must be paste without this below

GO

SELECT \* FROM V\_EmployeesHiredAfter2000

/\* 09LengthOfLastName \*/

SELECT FirstName, LastName

FROM Employees

WHERE LEN(LastName) = 5

/\* 10CountriesHoldingA3OrMoreTimes \*/

SELECT CountryName, IsoCode

FROM Countries

WHERE CountryName LIKE '%a%a%a%'

ORDER BY IsoCode

/\* 11MixOfPeakAndRiverNames \*/

SELECT PeakName, RiverName, LOWER(CONCAT(PeakName, RIGHT(RiverName, LEN(RiverName) - 1))) AS Mix

FROM Peaks, Rivers

WHERE RIGHT(PeakName, 1) = LEFT(RiverName, 1)

ORDER BY Mix

/\* 12GamesFrom2011And2012Year \*/

SELECT TOP 50 [Name], FORMAT([Start], 'yyyy-MM-dd') AS [Start]

FROM Games

WHERE [Start] >= '2011-01-01' AND [Start] <= '2012-12-31'

ORDER BY [Start], [Name]

/\* 13UserEmailProviders \*/

SELECT UserName, SUBSTRING(Email, CHARINDEX('@', Email) + 1, LEN(Email)) AS [Email Provider]

FROM Users

ORDER BY [Email Provider], UserName

/\* 14GetUsersWithIPAddressLikePattern \*/

SELECT UserName, IpAddress

FROM Users

WHERE IpAddress LIKE '\_\_\_.1\_%.\_%.\_\_\_'

ORDER BY UserName

/\* 15ShowAllGamesWithDurationAndPartOfTheDay \*/

SELECT [Name] AS Game,

CASE

WHEN DATEPART(HOUR, [Start]) >= 0 AND DATEPART(HOUR, [Start]) < 12 THEN 'Morning'

WHEN DATEPART(HOUR, [Start]) >= 12 AND DATEPART(HOUR, [Start]) < 18 THEN 'Afternoon'

WHEN DATEPART(HOUR, [Start]) >= 18 AND DATEPART(HOUR, [Start]) < 24 THEN 'Evening'

END AS [Part of the Day],

CASE

WHEN Duration <= 3 THEN 'Extra Short'

WHEN Duration BETWEEN 4 AND 6 THEN 'Short'

WHEN Duration > 6 THEN 'Long'

ELSE 'Extra Long'

END AS [Duration]

FROM Games

ORDER BY Game, [Duration], [Part of the Day]

--SELECT Name AS [Game],

-- CASE

-- WHEN DATEPART(HOUR, Start) BETWEEN 0 AND 11

-- THEN 'Morning'

-- WHEN DATEPART(HOUR, Start) BETWEEN 12 AND 17

-- THEN 'Afternoon'

-- WHEN DATEPART(HOUR, Start) BETWEEN 18 AND 23

-- THEN 'Evening'

-- ELSE 'N\A'

-- END AS [Part of the Day],

-- CASE

-- WHEN Duration <= 3

-- THEN 'Extra Short'

-- WHEN Duration BETWEEN 4 AND 6

-- THEN 'Short'

-- WHEN Duration > 6

-- THEN 'Long'

-- WHEN Duration IS NULL

-- THEN 'Extra Long'

-- ELSE 'Error - must be unreachable case'

-- END AS [Duration]

--FROM Games

--ORDER BY Name,

-- [Duration],

-- [Part of the Day];

/\* 16OrdersTable \*/

SELECT ProductName, OrderDate,

DATEADD(DAY, 3, OrderDate) AS [Pay Due],

DATEADD(MONTH, 1, OrderDate) AS [Deliver Due]

FROM Orders

/\* 17PeopleTable \*/

CREATE TABLE People

(

Id INT NOT NULL PRIMARY KEY IDENTITY,

[Name] NVARCHAR(50) NOT NULL,

Birthdate DATETIME2 NOT NULL

)

INSERT INTO People ([Name], Birthdate)

VALUES

('Victor', '2000-12-07 00:00:00.000'),

('Steven', '1992-09-10 00:00:00.000'),

('Stephen', '1910-09-19 00:00:00.000'),

('John', '2010-01-06 00:00:00.000'),

('Poly', '2001-09-07 00:00:00.000'),

('Brigite', '1990-08-19 00:00:00.000')

SELECT [Name],

DATEDIFF(YEAR, Birthdate, GETDATE()) AS [Age in Years],

DATEDIFF(MONTH, Birthdate, GETDATE()) AS [Age in Months],

DATEDIFF(DAY, Birthdate, GETDATE()) AS [Age in Days],

DATEDIFF(MINUTE, Birthdate, GETDATE()) AS [Age in Minutes]

FROM People

--CREATE TABLE People

--(

-- Id INT

-- PRIMARY KEY IDENTITY,

-- Name NVARCHAR(50) NOT NULL,

-- Birthdate DATETIME2 NOT NULL

--);

--INSERT INTO People

--VALUES

--(

-- 'Victor',

-- '2000-12-07 00:00:00.000'

--),

--(

-- 'Steven',

-- '1992-09-10 00:00:00.000'

--),

--(

-- 'Stephen',

-- '1910-09-19 00:00:00.000'

--),

--(

-- 'John',

-- '2010-01-06 00:00:00.000'

--);

--SELECT Name,

-- DATEDIFF(YEAR, Birthdate, GETDATE()) AS [Age in Years],

-- DATEDIFF(MONTH, Birthdate, GETDATE()) AS [Age in Months],

-- DATEDIFF(DAY, Birthdate, GETDATE()) AS [Age in Days],

-- DATEDIFF(MINUTE, Birthdate, GETDATE()) AS [Age in Minutes]

--FROM People;

--DROP TABLE People;