--Use of ISNULL and COALESCE

--The purpose of ISNULL() is to replace a NULL value with another value

--SQL ISNULL will replace all records from the table where the column contains a NULL value.

SELECT [AddressID]

, [AddressLine1]

, [AddressLine2]

, [City]

, [StateProvinceID]

, [PostalCode]

FROM [AdventureWorks2012]. [Person]. [Address]

Order by AddressLine2

--Using ISNULL command

SELECT [AddressID]

, [AddressLine1]

, ISNULL (AddressLine2,'UNKNOWN') AS ISNULLVALUE

, [City]

, [StateProvinceID]

, [PostalCode]

FROM [AdventureWorks2012]. [Person]. [Address]

Order by AddressLine2

--Use ISNULL multiple times in the same SQL statement for different columns

SELECT [BusinessEntityID]

, [PersonType]

, [NameStyle]

, [Title]

, [FirstName]

, [MiddleName]

, [LastName]

, [Suffix]

FROM [AdventureWorks2012]. [Person]. [Person]

--Using ISNULL to replace nulls with blanks

SELECT [BusinessEntityID]

, [PersonType]

, [NameStyle]

, ISNULL (Title,'') AS 'BLANK'--<< two single quotes equals blank

, [FirstName]

, [MiddleName]

, [LastName]

, ISNULL (Suffix,'') AS 'BLANK'--<< two single quotes equals blank

FROM [AdventureWorks2012]. [Person]. [Person]

Order By 8 --<< Note, I used a numeric for the position of the column

--The COALESCE function bypasses ALL the NULL values and returns the FIRST NON-NULL value

--Examples:

--backup copy of table

--select \* into [AdventureWorks2012]. [Person]. [Person\_040215]

--from [AdventureWorks2012]. [Person]. [Person]

--The COALESCE function will go through the first row (column by column) looking for Null values; WHEN IT DOES FIND A NULL, it will move to the next column

--and select the data and display the result and stops

--To allow changes to the table go to tools - options - designer - uncheck prevent changes that require table re-creation

--update [AdventureWorks2012]. [Person]. [Person\_040215]

--set Title = Null,

--FirstName = Null,

--MiddleName = Null

--where BusinessEntityID = 4

SELECT Top 100 [BusinessEntityID]

, [PersonType]

, [NameStyle]

, [Title]

, [FirstName]

, [MiddleName]

, [LastName]

, [Suffix]

FROM [AdventureWorks2012]. [Person]. [Person\_040215]

SELECT

Top 100 [BusinessEntityID]

, COALESCE

([Title]

, [FirstName]

, [MiddleName]

, [LastName]

, [Suffix]) AS FIND\_FIRST\_NON\_NULL\_VALUE

FROM [AdventureWorks2012]. [Person]. [Person\_040215]

--SAME AS ABOVE

SELECT

Top 100 [BusinessEntityID],

CASE

WHEN (Title IS NOT NULL) THEN TITLE

WHEN (FirstName IS NOT NULL) THEN FirstName

WHEN (MiddleName IS NOT NULL) THEN MiddleName

WHEN (LastName IS NOT NULL) THEN LastName

ELSE NULL

END AS FIND\_FIRST\_NON\_NULL\_VALUE

FROM [AdventureWorks2012]. [Person]. [Person\_040215]