

SQL Server

Wednesday, February 10, 2021 10:09 AM

Database

1.	Modify Name	Alter database <old_name> modify name=<new_Name> or exec sp_rename oldname,newname
2.	To Get Data Dictionary	In Query Area Select Table Name and press alt + F1 / sp_help
3.	To Allow Identity Column to supply value manually	SET Identity_Insert tablename ON; Note : Have to Supply Values like regular Insertion
4.	Check	Add constraint <nameofc> default(value) for column_name
5.	Default	Add constraint <nameofc> CHECK(expression)
6.	Options For Foreign Key Column	Set Null, Set Default, Cascade.
7.	To Reset Identity	DBCC CHECKIDENT(tblName,RESEED,seed value);
8.	To Get Current Identity Value	<ul style="list-style-type: none">• Scope_Identity() : Of Particular Scope in Same Scope• @@identity () : Same Session but Across Every Scope• Ident_Current('tableName') : OF Particular Table.• Generally All With Select To Display Value
9.	To Get Distinct Value form Column	Select distinct column Name/s from tableName
10.	To Provide Condition (Filter or short)	Select columns from tableName where condition <ul style="list-style-type: none">• For Not Equal to <> or !=• Other Like =, >=, <=, =, >, <• IN : where column IN (Lists of Elements) - True for all Value Form List• NOT : where column NOT IN (Lists of Elements) - True for all apart from Value Form List or satisfy condition like NOT Between and NOT LIKE• BETWEEN :where column between value1 and value2 - for Ranging• LIKE: where column LIKE 'pattern'<ul style="list-style-type: none">◦ % : Like * in REGEX means zero or more occurrence◦ _ : Like . In Regex means only one char◦ [] : Like [] in regex any form this◦ [^]: Like [^] in Regex not any from this• AND & OR : For Logical• IS NULL or IS NOT NULL : Compare Null Values
11.	For Sorting	Select * from column_name order by (column_name ASC /DESC)* <ul style="list-style-type: none">• Default ASC
12.	To Retrieve few records of choice	Select top number . . .
13.	To Aggregate	Select . . . tableName group by columnName/es (Optional: Having=value) <ul style="list-style-type: none">• Can Select or Operate Aggregate Functions Only or columnName/es By Which Aggregate.• Using Having We Can Get Particular Values only like Gender is Male• If Condition is there can use Where Having is Helpful to filter based on Value
14.	Types of Join	<ul style="list-style-type: none">• Inner Join : Common of A and B• Left Join : Complete A + Null Where Not Matched With B• Right Join : Null Where Not Matched With A+ Complete B• Full Join : Complete A and B (Null Where Not Matched in A or B)• Cross Join : A * B = Each of A is Join With Each of B• Self Join: It is not any different type of join just a concept that if needed then can join same with itself
15.	To Replace Null Value	<ul style="list-style-type: none">• ISNULL() function• Case Statement<ul style="list-style-type: none">• Case when exp then value else value as ColnameToRepresent• COALESCE() function<ul style="list-style-type: none">• Generally It Returns First No Null Values from Provided List of values
16.	To Combine the resultant data (Same Structure including data type)	<ul style="list-style-type: none">• UNION<ul style="list-style-type: none">• Remove Duplication after union data and before displaying• UNION ALL<ul style="list-style-type: none">• Gather all data and Display.

17.	Stored Procedure	<ul style="list-style-type: none">• With Encryption before definition of stored procedure to stop retrieving definition.• sp_helptext to retrieve definition of stored procedure																														
18.	Basic String Functions	<ul style="list-style-type: none">• ASCII(char value) : Gives ASCII Value of character• Char (int value) : Character corsonde the ascii value• LTRIM(string), RTRIM(string), TRIM(string) : To Trim The Spaces for Left and Right side• LEN(string) : To get Length of String• LEFT/RIGHT(string, int): To Get Specified Char from string from left/right side• SubString(string, int, int) : Substring from string• Replicate(string, int times) : To Repeat String times• Spcae(int) : To Print Space int times• Lower(string) : String To Lower• Upper (string) : String To Upper• Reverse(string): To Reverse the String• CharIndex(char, string) : Returns First Occurrence of char in string, 0 if no• PatIndex (pattern, string) : Gives Index where First Occurrence of Pattern is matched, 0 if no• Replace (string, stringToReplace, ReplacementString) : To Replace Value• Stuff (string, startpos, length,replacement string) : Similar to Replace just way is different																														
19.	Date Time	<ul style="list-style-type: none">• Data Types:<ul style="list-style-type: none">• Time - 3 to 5• Date -3• SmallDateTime - 4• DateTime - 8• DateTime2 - 6 to 8• DateTimeOffset 8 to 10 (Includes Time Zone +/- hh:mm)• Difference is in Accuracy and size of storing 1day/ minute to, 0.0033s - 100 ns• Functions:<ol style="list-style-type: none">1.GETDATE / URRENT TIMESTAMP: Moreover Same2.SYSDATETIME / SYSDATETIMEOFFSET : Difference is just accuracy3.GETUTCDATE / SYSUTCDATETIME : To Get UTC based Time4.ISDATE() - if yes then 1 else 0 (Not Applicable for DateTime2 and offset so max nnn)5.DAY/ Month/ Year (Valid Date) : Return Particular Value6.DateName/ DatePart: (part, date): To Gate More Details About Date in Name or Integer<table><tr><th>DatePart</th><th>Abbreviation</th></tr><tr><td>year</td><td>yy, yyyy</td></tr><tr><td>quarter</td><td>qq, q</td></tr><tr><td>month</td><td>mm, m</td></tr><tr><td>dayofyear</td><td>dy, y</td></tr><tr><td>day</td><td>dd, d</td></tr><tr><td>week</td><td>wk, ww</td></tr><tr><td>weekday</td><td>dw</td></tr><tr><td>hour</td><td>hh</td></tr><tr><td>minute</td><td>mi, n</td></tr><tr><td>second</td><td>ss, s</td></tr><tr><td>millisecond</td><td>ms</td></tr><tr><td>microsecond</td><td>mcs</td></tr><tr><td>nanosecond</td><td>ns</td></tr><tr><td>TZoffset</td><td>tz</td></tr></table>	DatePart	Abbreviation	year	yy, yyyy	quarter	qq, q	month	mm, m	dayofyear	dy, y	day	dd, d	week	wk, ww	weekday	dw	hour	hh	minute	mi, n	second	ss, s	millisecond	ms	microsecond	mcs	nanosecond	ns	TZoffset	tz
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		7. DateAdd (part,value,date) 8. DateTDiff (part,date1,date2)
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Note :

- If we directly execute query then all queries got execute but By Selecting and Execute then we can execute selected Query from all list of query in Single Query Window.
- Best way to declare table with tbl prefix and stored procedure with sp prefix not by 'sp_'.
- As to give alias and if Column Name contain Space then [Column Name].
- Main DB Rule is Do Thing As Early as Possible.
- Union Combine the rows of table where as Join combine columns based on logical relationship.

Observations:

- In Case of identity when Insert Statement executes then it increment the Identity counter first, so if in case Insert statement is throw an error then also identity counter no get decremented, and next successful will not stored on last stored record's identity + 1 instead of that identity + 1 + in between failed insert Statement. (Not Applicable For Compiling Query)
- If Default is Not Set And Set Default option as Insert Update Specification in FK then it gives NULL.
- As ASCII is till 256 so if provide more then that to char() it return NULL
- Length of Null String is Null same for LEFT and RIGHT, TRIMING functions, Replicate,
- If Date is Not Valid Format then Day, Month and Other will Not work.