

Report On Duplication Removal and Serialization

1. Creating Backup table:

```
--creating backup tables
```

```
select *  
into #CustomerBKP  
from SalesLT.Customer;  
  
select *  
into #SalesOrderHeaderBKP  
from SalesLT.SalesOrderHeader
```

2. Finding duplicates value using windows functions:

storing data of customer into temp customer table partioned by EmailAddress

```
;with cte as  
(select ROW_NUMBER() over(partition by EmailAddress order by  
CustomerID desc)  
row_num,*  
from SalesLT.Customer)  
select *  
into #TempCustomer  
from cte;
```

```
--displaying duplicates result  
select * from #TempCustomer  
where row_num>1;
```

Results Messages												
	row_num	CustomerID	NameStyle	Title	FirstName	MiddleName	LastName	Suffix	CompanyName	SalesPerson	EmailAddress	PI
1	2	202	0	NULL	A.	Francesca	Leonetti	NULL	Two-Seater Bikes	adventure-works/jillian0	a0@adventure-works.com	6
2	2	345	0	Ms.	Abigail	J.	Gonzalez	NULL	Genial Bike Associates	adventure-works/jillian0	abigail0@adventure-works.com	1;
3	2	511	0	Mr.	Abraham	L.	Swearengin	NULL	Wheel Gallery	adventure-works/shu0	abraham0@adventure-works.com	9;
4	2	75	0	Ms.	Aidan	NULL	Delaney	NULL	Paint Supply	adventure-works/jillian0	aidan0@adventure-works.com	3;
5	2	659	0	Mr.	Ajay	NULL	Manchepalli	NULL	Shipping Specialists	adventure-works/jae0	ajay0@adventure-works.com	1
6	2	148	0	Mr.	Alan	NULL	Brewer	NULL	Lots of Bikes Storehouse	adventure-works/jillian0	alan1@adventure-works.com	4;
7	2	595	0	Mr.	Alan	NULL	Steiner	NULL	Cycle Clearance	adventure-works/pamela0	alan4@adventure-works.com	7;
8	2	408	0	Mr.	Alexander	J.	Berger	II	Odometers and Accessories Company	adventure-works/garrett1	alexander0@adventure-works.com	5
9	2	66	0	Mr.	Alexander	J.	Deborde	NULL	Neighborhood Store	adventure-works/garrett1	alexander1@adventure-works.com	3;
10	2	147	0	Ms.	Alice	NULL	Clark	NULL	Local Hardware Factory	adventure-works/jillian0	alice1@adventure-works.com	2;

3. Checking duplicates values

```
29 --checking if there is duplicates
30 select count(*)
31 from SalesLT.CustomerAddress as ca
32 inner join #TempCustomer tc on
33 tc.CustomerID=ca.CustomerID
34 where tc.row_num > 1;
35
36 select count(*)
37 from SalesLT.SalesOrderHeader as soh
38 join #TempCustomer as tc on tc.CustomerID=soh.CustomerID
39 where tc.row_num > 1
40
) %
Results Messages
(No column name)
0
```

Checking duplicates values in the SalesOrderHeader and CustomerAddress tables before deleting it.

4. Deleting data from temp table

```
43
44 --deleting duplicates data from temp tables
45 Delete from #TempCustomer
46 where row_num > 1;
47
48 --checking if there is dup value after deletion
49 select count(*) from #TempCustomer
50 where row_num > 1;
51
52
) %
Results Messages
(No column name)
0
```

Serialization

5. Creating temporary customer address tables

```
54
55 --creating temporary customeraddress table
56 select *
57 into #TempCustomerAddress
58 from SalesLT.CustomerAddress;
59
60 select * from #TempCustomerAddress;
61
62
```

10 %

Results Messages

	CustomerID	AddressID	AddressType	rowguid	ModifiedDate
1	29485	1086	Main Office	16765338-DBE4-4421-B5E9-3836B9278E63	2007-09-01 00:00:00.000
2	29486	621	Main Office	22B3E910-14AF-4ED5-8B4D-23BBE757414D	2005-09-01 00:00:00.000
3	29489	1069	Main Office	A095C88B-D7E6-4178-A078-2ECA44214801	2005-07-01 00:00:00.000
4	29490	887	Main Office	F12E1702-D897-4035-B614-0FE2C72168A9	2006-09-01 00:00:00.000
5	29492	618	Main Office	5B3B3EB2-3F43-47ED-A20C-23697DABF23B	2006-12-01 00:00:00.000
6	29494	537	Main Office	492D92B6-31AF-47EA-8E00-7C11C7CCC20D	2005-09-01 00:00:00.000
7	29496	1072	Main Office	0A66B0F3-24BC-4148-9661-26E935CEC99A	2007-09-01 00:00:00.000
8	29497	889	Main Office	7E0B56FD-7324-4898-BEDB-2F56A843BB0F	2005-07-01 00:00:00.000
9	29499	527	Main Office	C90CB0C3-976A-4075-A2B9-13136F4F1A92	2006-09-01 00:00:00.000
10	29502	893	Main Office	8ACB1C6A-7CDF-417B-AFD5-9F4C642F3C7E	2007-07-01 00:00:00.000
11	29503	32	Shipping	BE00FFC6-194B-44E9-A129-DFBEB8F1301F	2006-08-01 00:00:00.000

Query executed successfully. | LAPTOP-U9U11BTI\SQLEXPRESS ... | LAPTOP-U9U11BTI\Nandan..

6. Creating temp table to store old customerID and assign new Id.

```
64 --creating temporary table that store old customer id and new assigned id
65
66 --creating table
67 create table #IDMAP(
68 ID int identity,
69 CustomerID int,
70 ModifiedDate datetime
71 );
72
73 --inserting data
74 insert into #IDMAP
75 select CustomerID, ModifiedDate from #TempCustomer order by ModifiedDate;
76
77 select * from #IDMAP;
78
```

110 %

Results Messages

	ID	CustomerID	ModifiedDate
1	1	30052	2005-07-01 00:00:00.000
2	2	29824	2005-07-01 00:00:00.000
3	3	29747	2005-07-01 00:00:00.000
4	4	29533	2005-07-01 00:00:00.000
5	5	515	2005-07-01 00:00:00.000
6	6	29596	2005-07-01 00:00:00.000
7	7	29497	2005-07-01 00:00:00.000
8	8	204	2005-07-01 00:00:00.000

Query executed successfully. | LAPTOP-U9U11BTI\SQLEXPRESS ... | LAPTOP-U9U11BTI\Nandan..

7. Updating customerId column in #tempcustomer address by id column

```

80
81 --Updating CustomerID column of #TempCustomerAddress table by ID
82 --column in #IDMAP table
83
84 update #TempCustomerAddress
85 set CustomerID = (select ID from #IDMAP where
86 #IDMAP.Cu: column CustomerID(int, not null) ess.CustomerID);
87
88 select * from #TempCustomerAddress;
89
90
91
92

```

CustomerID	AddressID	AddressType	rowguid	ModifiedDate
437	1086	Main Office	16765338-DBE4-4421-B5E9-3836B9278E63	2007-09-01 00:00:00.000
436	621	Main Office	22B3E910-14AF-4ED5-8B4D-23BBE757414D	2005-09-01 00:00:00.000
438	1069	Main Office	A095C88B-D7E6-4178-A078-2ECA44214801	2005-07-01 00:00:00.000
439	887	Main Office	F12E1702-D897-4035-B614-0FE2C72168A9	2006-09-01 00:00:00.000
440	618	Main Office	5B3B3EB2-3F43-47ED-A20C-23697DABF23B	2006-12-01 00:00:00.000
136	537	Main Office	492D92B6-31AF-47EA-8E00-7C11C7CCC20D	2005-09-01 00:00:00.000
384	1072	Main Office	0A66B0F3-24BC-4148-9661-26E935CEC99A	2007-09-01 00:00:00.000
7	889	Main Office	7E0B56FD-7324-4898-BEDB-2F56A843BB0F	2005-07-01 00:00:00.000

8. Cleaning tables

The screenshot shows the Microsoft SQL Server Management Studio interface. The query editor contains the following SQL code:

```

91
92 --cleaning tables
93 delete from SalesLT.CustomerAddress;
94 alter table SalesLT.salesorderheader nocheck constraint all;
95 delete from SalesLT.Customer;
96 alter table SalesLT.salesorderheader check constraint all;
97
98

```

The Messages pane shows the execution results:

```

(417 rows affected)
(847 rows affected)
Completion time: 2023-05-16T20:34:49.1831217+05:45

```

The status bar at the bottom indicates: "Query executed successfully. LAPTOP-U9U11BT\SQLEXPRESS ... LAPTOP-U9U11BT\Nandan... AdventureWorksLT2019 00:00:00 0 rows".

9. Resetting identity column

```
--resetting identity column  
dbcc checkident ('SalesLT.Customer',reseed,0);
```

10. Inserting into customer column from temporary table

```
105 --Inserting into customer table from temporary table  
106 insert into SalesLT.Customer  
107 select NameStyle, Title, FirstName, MiddleName, LastName, Suffix, CompanyName,  
108 SalesPerson, EmailAddress, Phone, PasswordHash, PasswordSalt, rowguid, ModifiedDate  
109  
110 from #TempCustomer as tc  
111 order by tc.ModifiedDate;  
112  
113 select * from SalesLT.Customer;
```

10 %

Results Messages

	CustomerID	NameStyle	Title	FirstName	MiddleName	LastName	Suffix	CompanyName	SalesPerson	EmailAddress	Phone	PasswordHash
1	1	0	Mr.	Abraham	L.	Swearengin	NULL	Wheel Gallery	adventure-works\shu0	abraham0@adventure-works.com	926-555-0136	CCZ7frqKu
2	2	0	Ms.	Brenda	F.	Heaney	NULL	Superb Sales and Repair	adventure-works\garrett1	brenda3@adventure-works.com	393-555-0167	RxykMRRwf
3	3	0	Ms.	Carolyn	NULL	Farino	NULL	The Bike Shop	adventure-works\dauid8	carolyn0@adventure-works.com	957-555-0125	jnz8GF/gbw
4	4	0	Mr.	Douglas	A.	Baldwin	Jr.	Small Cycle Store	adventure-works\michael9	douglas1@adventure-works.com	583-555-0130	9IHdXDAU
5	5	0	Mr.	Dragan	NULL	Tomic	NULL	Rural Bicycle Supply	adventure-works\josé1	dragan1@adventure-works.com	833-555-0167	/RLmUbwf
6	6	0	Mr.	Eric	J.	Brumfield	NULL	Requisite Part Supply	adventure-works\josé1	eric3@adventure-works.com	644-555-0114	pd7IPYE+G
7	7	0	Mr.	François	NULL	Ferrier	NULL	Great Bikes	adventure-works\dauid8	francois1@adventure-works.com	571-555-0128	Li26cq1s3a

Query executed successfully. LAPTOP-U9U11BT\SQLEXPRESS ... LAPTOP-U9U11BT\Nandan... AdventureWorksLT2019 00:00:00 440 rows

11. Inserting into customeraddress table to tempcustomeraddress table

```

116 --Inserting into customerAddress table from temporary table
117 insert into SalesLT.CustomerAddress
118 select CustomerID, AddressID, AddressType, rowguid, ModifiedDate
119 from #TempCustomerAddress;
120
121 select * from SalesLT.CustomerAddress;

```

0 %

Results Messages

	CustomerID	AddressID	AddressType	rowguid	ModifiedDate
1	1074	Main Office	EA85B354-01CB-48B5-A60B-DBE990CF7661	2005-07-01 00:00:00.000	
2	556	Main Office	35BCA4AD-180B-46E9-9578-0C9FC3202E13	2005-07-01 00:00:00.000	
3	895	Main Office	ED778965-8FD3-407C-9267-440A6C9E5F3D	2005-07-01 00:00:00.000	
4	801	Main Office	CD6229C0-A0FA-4A48-B4E1-D1C02437CAA8	2005-07-01 00:00:00.000	
6	458	Main Office	F304C494-8B65-41A7-A144-853FF6DCF91C	2005-07-01 00:00:00.000	
7	889	Main Office	7E0B56FD-7324-4898-BEDB-2F56A843BB0F	2005-07-01 00:00:00.000	
9	517	Main Office	ABDAAE4A-7F6D-4192-A162-495646CDA3CB	2005-07-01 00:00:00.000	
10	1021	Main Office	5A372EB5-2A48-43D3-ADE1-A67DEDEA0E20	2005-07-01 00:00:00.000	

12. Update salesOrderheader

```

123
124 --Updating salesorderheader
125
126 update SalesLT.SalesOrderHeader
127 set CustomerID=(select ID from #IDMAP where
128 #IDMAP.CustomerID=SalesLT.SalesOrderHeader.CustomerID);
129
130 select * from SalesLT.SalesOrderHeader;

```

110 %

Results Messages

	SalesOrderID	RevisionNumber	OrderDate	DueDate	ShipDate	Status	OnlineOrderFlag	SalesOrderNumber	PurchaseOrderNumber	AccountNum
1	71774	3	2008-06-01 00:00:00.000	2008-06-13 00:00:00.000	2008-06-08 00:00:00.000	5	0	SO71774	PO348186287	10-4020-00C
2	71776	3	2008-06-01 00:00:00.000	2008-06-13 00:00:00.000	2008-06-08 00:00:00.000	5	0	SO71776	PO19952192051	10-4020-00C
3	71780	3	2008-06-01 00:00:00.000	2008-06-13 00:00:00.000	2008-06-08 00:00:00.000	5	0	SO71780	PO19604173239	10-4020-00C
4	71782	3	2008-06-01 00:00:00.000	2008-06-13 00:00:00.000	2008-06-08 00:00:00.000	5	0	SO71782	PO19372114749	10-4020-00C
5	71783	3	2008-06-01 00:00:00.000	2008-06-13 00:00:00.000	2008-06-08 00:00:00.000	5	0	SO71783	PO19343113609	10-4020-00C
6	71784	3	2008-06-01 00:00:00.000	2008-06-13 00:00:00.000	2008-06-08 00:00:00.000	5	0	SO71784	PO19285135919	10-4020-00C
7	71796	3	2008-06-01 00:00:00.000	2008-06-13 00:00:00.000	2008-06-08 00:00:00.000	5	0	SO71796	PO17052159664	10-4020-00C

Query executed successfully. LAPTOP-U9U11BT\SQLEXPRESS ... LAPTOP-U9U11BT\Nandan... AdventureWorksLT2019 00:00:00 32 rows

13. Drop backup and temp tables

```
133  --Dropping temporary tables and backuptables
134  drop table #TempCustomer
135  drop table #TempCustomerAddress
136  drop table #IDMAP
137  drop table #CustomerBKP
138  drop table #SalesOrderHeaderBKP
```