

## Question 1:

Table 1 will group the data from the group fatalities by Drug/alcohol +  
Distraction + Speeding into one table.

Execute SQL Task Editor

Configure the properties required to run SQL statements and stored procedures using the selected connection.

**General**

Parameter Mapping

Result Set

Expressions

**General**

Name: Execute SQL Task

Description: Execute SQL Task

**Options**

TimeOut: 0

CodePage: 1252

TypeConversionMode: Allowed

**Result Set**

ResultSet: None

**SQL Statement**

ConnectionType: OLE DB

Connection: LAPTOP-OEAIEUG0\MSSQLSERVER2017

SQLSourceType: Direct input

SQLStatement: truncate table [dbo].[mvfAlcoholDrugDistr]

IsQueryStoredProcedure: False

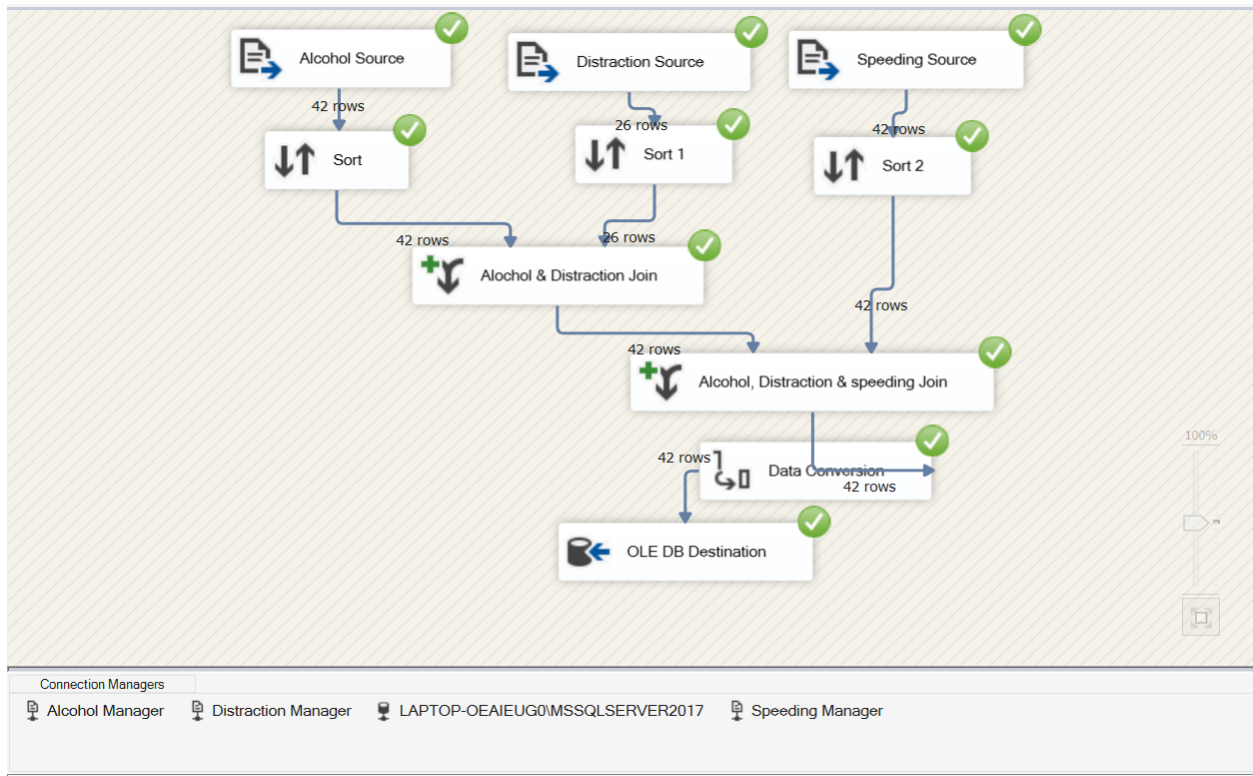
BypassPrepare: True

**Name**

Specifies the name of the task.

Browse... Build Query... Parse Query

OK Cancel Help



## Sort Transformation Editor

Specify the columns to sort, and set their sort type and their sort order. All nonselected columns are copied unchanged.

### Available Input Columns

<input type="checkbox"/>	Name	Pass Through
<input checked="" type="checkbox"/>	YEAR	<input type="checkbox"/>
<input checked="" type="checkbox"/>	ALCOHOL AND OR DRUGS INVOLVED	<input type="checkbox"/>
<input type="checkbox"/>	FATAL VICTIMS	<input checked="" type="checkbox"/>

Input Column	Output Alias	Sort Type	Sort Order	Compar
YEAR	YEAR	ascending	1	
ALCOHOL AND OR DRUGS IN...	ALCOHOL AND OR DRUGS IN...	ascending	2	

< >


☐ Remove rows with duplicate sort values

OK

Cancel

Help

### First Merge Joining Alcohol Drug & Distraction Files.

 Merge Join Transformation Editor

Configure the properties used to join two sources of sorted data. Select the join type and then specify the columns to be used as the join key. Join keys must be used in the order specified by the sort-key position of the column.

Join type: Left outer join Swap Inputs

Sort

<input checked="" type="checkbox"/>	Name
<input checked="" type="checkbox"/>	YEAR
<input checked="" type="checkbox"/>	ALCOHOL AND OR DRUGS INVOLVED
<input checked="" type="checkbox"/>	FATAL VICTIMS


Sort 1

<input checked="" type="checkbox"/>	Name
<input type="checkbox"/>	YEAR
<input type="checkbox"/>	DISTRACTION OR INATTENTION INVOLVED
<input checked="" type="checkbox"/>	FATAL VICTIMS

Input	Input Column	Output Alias
Sort	YEAR	YEAR
Sort	ALCOHOL AND OR DRUGS INVOLVED	ALCOHOL AND OR DRUGS INVOLVED
Sort	FATAL VICTIMS	FATAL VICTIMS ALCOHOL
Sort 1	FATAL VICTIMS	FATAL VICTIMS DISTRACTION

OK Cancel Help

## Final Merge, Merging output of AlcoholDrug&Distraction to Speeding

 Merge Join Transformation Editor

Configure the properties used to join two sources of sorted data. Select the join type and then specify the columns to be used as the join key. Join keys must be used in the order specified by the sort-key position of the column.

Join type: Full outer join Swap Inputs

Alochol & Distraction Join

<input checked="" type="checkbox"/>	Name
<input checked="" type="checkbox"/>	YEAR
<input checked="" type="checkbox"/>	ALCOHOL AND OR DRUGS INVOLVED
<input checked="" type="checkbox"/>	FATAL VICTIMS ALCOHOL
<input checked="" type="checkbox"/>	FATAL VICTIMS DISTRACTION

Sort 2

<input checked="" type="checkbox"/>	Name	Order
<input type="checkbox"/>	YEAR	1
<input type="checkbox"/>	SPEEDING INVOLVED	2
<input checked="" type="checkbox"/>	FATAL VICTIMS	0

Input	Input Column	Output Alias
Alochol & Distr...	YEAR	YEAR
Alochol & Distr...	ALCOHOL AND OR DRUGS INVOLVED	ALCOHOL/DRUG/DISTRACTION/SPEEDING
Alochol & Distr...	FATAL VICTIMS ALCOHOL	FATAL VICTIMS ALCOHOL
Alochol & Distr...	FATAL VICTIMS DISTRACTION	FATAL VICTIMS DISTRACTION
Sort 2	FATAL VICTIMS	FATAL VICTIMS SPEEDING

OK

Cancel

Help

## Data conversion

Data Conversion Transformation Editor

Configure the properties used to convert the data type of an input column to a different data type. Depending on the data type to which the column is converted, set the length, precision, scale, and code page of the column.

Available Input Columns

<input checked="" type="checkbox"/>	Name
<input type="checkbox"/>	YEAR
<input type="checkbox"/>	ALCOHOL/DRUG/DISTRACTION/SPEEDING
<input checked="" type="checkbox"/>	FATAL VICTIMS ALCOHOL
<input checked="" type="checkbox"/>	FATAL VICTIMS DISTRACTION
<input checked="" type="checkbox"/>	FATAL VICTIMS SPEEDING

Input Column	Output Alias	Data Type	Length	Precision	Scale	Code Page
FATAL VICTIMS ALCOH...	newFATAL VICTIMS AL...	four-byte unsigned integ...				
FATAL VICTIMS DISTR...	newFATAL VICTIMS DI...	four-byte unsigned integ...				
FATAL VICTIMS SPEEDI...	newFATAL VICTIMS SP...	four-byte unsigned integ...				

< >

Configure Error Output... OK Cancel Help

Create Table

```
CREATE TABLE mvfAlcoholDrugDistractionSpeeding(  
  [YEAR] varchar(50),  
  [ALCOHOL/DRUG/DISTRACTION/SPEEDING] varchar(50),  
  [FATAL VICTIMS ALCOHOL] bigint,  
  [FATAL VICTIMS DISTRACTION] bigint,  
  [FATAL VICTIMS SPEEDING] bigint  
)
```

OK Cancel

OLE DB Destination Editor

Configure the properties used to insert data into a relational database using an OLE DB provider.

Connection Manager  
Mappings  
Error Output

Available Input Columns

Name

YEAR

ALCOHOL/DRUG/DISTRACTION/SPEEDING

FATAL VICTIMS ALCOHOL

FATAL VICTIMS DISTRACTION

FATAL VICTIMS SPEEDING

newFATAL VICTIMS ALCOHOL

newFATAL VICTIMS DISTRACTION

Available Destination Columns

Name

YEAR

FATAL VICTIMS ALCOHOL

ALCOHOL/DRUG/DISTRACTION/SPEEDING

FATAL VICTIMS DISTRACTION

Input Column	Destination Column
YEAR	YEAR
newFATAL VICTIMS ALCOHOL	FATAL VICTIMS ALCOHOL
ALCOHOL/DRUG/DISTRACTION/SPEEDING	ALCOHOL/DRUG/DISTRACTION/SPEEDING
newFATAL VICTIMS DISTRACTION	FATAL VICTIMS DISTRACTION
newFATAL VICTIMS SPEEDING	FATAL VICTIMS SPEEDING

OK

Cancel

Help

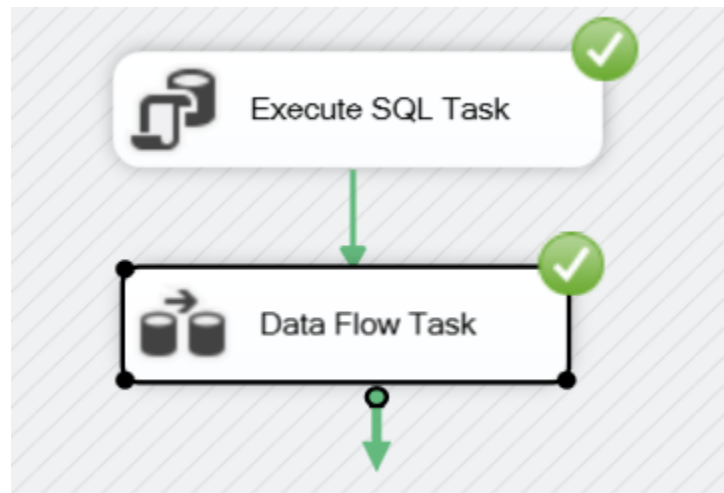


## Output:


	YEAR	ALCOHOL/DRUG/DISTRACTION/SPEEDING	FATAL VICTIMS ALCOHOL	FATAL VICTIMS DISTRACTION	FATAL VICTIMS SPEEDING
1	1996	N	319	NULL	298
2	1996	Y	150	NULL	171
3	1997	N	295	NULL	270
4	1997	Y	132	NULL	157
5	1998	N	288	NULL	271
6	1998	Y	136	NULL	153
7	1999	N	303	NULL	270
8	1999	Y	106	NULL	139
9	2000	N	293	NULL	240
10	2000	Y	102	NULL	155
11	2001	N	271	NULL	228
12	2001	Y	122	NULL	165
13	2002	N	332	NULL	272
14	2002	Y	123	NULL	183
15	2003	N	337	NULL	287
16	2003	Y	111	NULL	161
17	2004	N	315	364	294
18	2004	Y	125	76	146
19	2005	N	312	338	271
20	2005	Y	140	114	181
21	2006	N	271	317	256
22	2006	Y	131	85	146
23	2007	N	267	313	244
24	2007	Y	144	98	167
25	2008	N	242	263	221
26	2008	Y	112	91	133
27	2009	N	257	264	230
28	2009	Y	106	99	133
29	2010	N	237	262	251
30	2010	Y	127	102	113
31	2011	N	217	213	194
32	2011	Y	75	79	98
33	2012	N	224	201	181
34	2012	Y	57	80	100
35	2013	N	205	192	192
36	2013	Y	64	77	77
37	2014	N	224	223	208
38	2014	Y	65	66	81
39	2015	N	223	206	206
40	2015	Y	72	89	89
41	2016	N	220	208	195
42	2016	Y	67	79	92

## Question 2:

Table 2 will group the data from the group serious injuries by Drug/alcohol + Distraction + Speeding into one table.



Execute SQL Task Editor



Configure the properties required to run SQL statements and stored procedures using the selected connection.

General

Parameter Mapping

Result Set

Expressions

General

Name

Execute SQL Task

Description

Execute SQL Task

Options

TimeOut

0

CodePage

1252

TypeConversionMode

Allowed

Result Set

ResultSet

None

SQL Statement

ConnectionType

OLE DB

Connection

LAPTOP-OEAIEUG0\MSSQLSERVER2017

SQLSourceType

Direct input

SQLStatement

truncate table [dbo].[mvsiAlcoholDrugDist

IsQueryStoredProcedure

False

BypassPrepare

True

Name

Specifies the name of the task.

Browse...

Build Query...

Parse Query

OK

Cancel

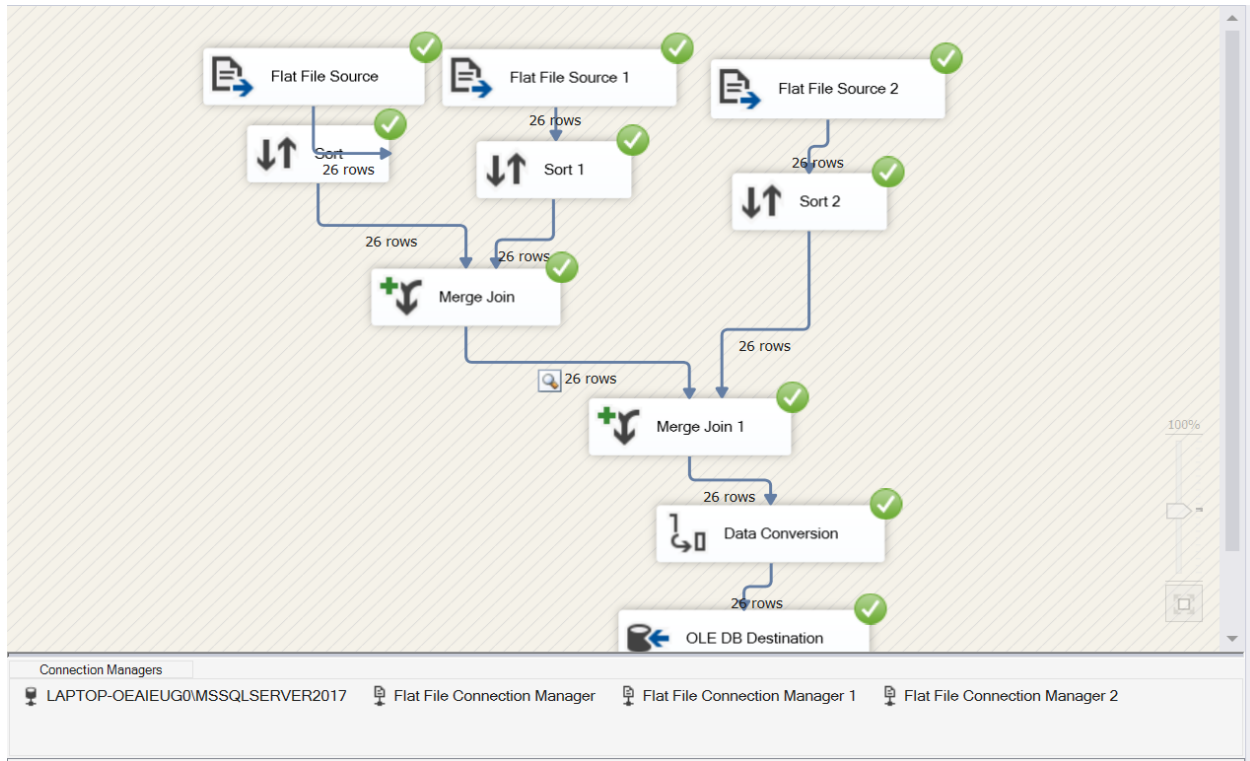
Help

EDV/EP2017

Elst File Connection Manager

Elst File Connection Manager 1

Elst File Connection Manager



## Sort Transformation Editor

Specify the columns to sort, and set their sort type and their sort order. All nonselected columns are copied unchanged.

### Available Input Columns

<input type="checkbox"/>	Name	Pass Through
<input checked="" type="checkbox"/>	YEAR	<input type="checkbox"/>
<input checked="" type="checkbox"/>	ALCOHOL AND OR DRUGS INVOLVED	<input type="checkbox"/>
<input type="checkbox"/>	SERIOUS INJURIES	<input checked="" type="checkbox"/>

Input Column	Output Alias	Sort Type	Sort Order	Compar
YEAR	YEAR	ascending	1	
ALCOHOL AND OR DRUGS IN...	ALCOHOL AND OR DRUGS IN...	ascending	2	

☐ Remove rows with duplicate sort values

OK

Cancel

Help



## Merge Join Transformation Editor

Configure the properties used to join two sources of sorted data. Select the join type and then specify the columns to be used as the join key. Join keys must be used in the order specified by the sort-key position of the column.

Join type:

Left outer join

Swap Inputs

Sort

<input checked="" type="checkbox"/>	Name
<input checked="" type="checkbox"/>	YEAR
<input checked="" type="checkbox"/>	ALCOHOL AND OR DRUGS INVOLVED
<input checked="" type="checkbox"/>	SERIOUS INJURIES

Sort 1

<input checked="" type="checkbox"/>	Name
<input type="checkbox"/>	YEAR
<input checked="" type="checkbox"/>	SERIOUS INJURIES
<input type="checkbox"/>	DISTRACTION OR INATTENTION INVOLVED

Input	Input Column	Output Alias
Sort	YEAR	YEAR
Sort	ALCOHOL AND OR DRUGS INVOLVED	ALCOHOL AND OR DRUGS INVOLVED
Sort	SERIOUS INJURIES	SERIOUS INJURIES ALCOHOL&DRUG
Sort 1	SERIOUS INJURIES	SERIOUS INJURIES DISTRACTION

OK

Cancel

Help

Configure the properties used to join two sources of sorted data. Select the join type and then specify the columns to be used as the join key. Join keys must be used in the order specified by the sort-key position of the column.

Join type:

Left outer join

Swap Inputs

## Merge Join

- ☒ Name
- ☒ YEAR
- ☒ ALCOHOL AND OR DRUGS INVOLVED
- ☒ SERIOUS INJURIES ALCOHOL&DRUG
- ☒ SERIOUS INJURIES DISTRACTION

## Sort 2

<input checked="" type="checkbox"/>	Name	Order
<input type="checkbox"/>	YEAR	1
<input checked="" type="checkbox"/>	SERIOUS INJURIES	0
<input type="checkbox"/>	SPEEDING INVOLVED	2

Input	Input Column	Output Alias
Merge Join	YEAR	YEAR
Merge Join	ALCOHOL AND OR DRUGS INVOLVED	ALCOHOL AND OR DRUGS DISTRACTION SPE...
Merge Join	SERIOUS INJURIES ALCOHOL&DRUG	SERIOUS INJURIES ALCOHOL&DRUG
Merge Join	SERIOUS INJURIES DISTRACTION	SERIOUS INJURIES DISTRACTION
Sort 2	SERIOUS INJURIES	SERIOUS INJURIES SPEEDING

OK

Cancel

Help

Configure the properties used to convert the data type of an input column to a different data type. Depending on the data type to which the column is converted, set the length, precision, scale, and code page of the column.

## Available Input Columns

- ☒ Name
- ☐ YEAR
- ☐ ALCOHOL AND OR DRUGS DISTRACTION SPEEDING
- ☒ SERIOUS INJURIES ALCOHOL&DRUG
- ☒ SERIOUS INJURIES DISTRACTION
- ☒ SERIOUS INJURIES SPEEDING

Input Column	Output Alias	Data Type	Length	Precision	Scale	Code Page
SERIOUS INJURIES ALC...	Copy of SERIOUS INJU...	four-byte unsigned integ...				
SERIOUS INJURIES DIS...	Copy of SERIOUS INJU...	four-byte unsigned integ...				
SERIOUS INJURIES SPE...	Copy of SERIOUS INJU...	four-byte unsigned integ...				

< >

Configure Error Output...

OK

Cancel

Help





## Create Table

```
CREATE TABLE mvsiAlcoholDrugDistractionSpeeding (
  [YEAR] varchar(50),
  [ALCOHOL AND OR DRUGS DISTRACTION SPEEDING] varchar(50),
  [SERIOUS INJURIES ALCOHOL&DRUG] bigint,
  [SERIOUS INJURIES DISTRACTION] bigint,
  [SERIOUS INJURIES SPEEDING] bigint
)
```

OK

Cancel

OLE DB Destination Editor

Configure the properties used to insert data into a relational database using an OLE DB provider.

Connection Manager

Mappings

Error Output

Available Input Columns

Name
YEAR
ALCOHOL AND OR DRUGS DISTRACTION SP
SERIOUS INJURIES ALCOHOL&DRUG
SERIOUS INJURIES DISTRACTION
SERIOUS INJURIES SPEEDING
Copy of SERIOUS INJURIES ALCOHOL&DRUG
Copy of SERIOUS INJURIES DISTRACTION

Available Destination Columns

Name
YEAR
ALCOHOL AND OR DRUGS DISTRACTION SP
SERIOUS INJURIES ALCOHOL&DRUG
SERIOUS INJURIES DISTRACTION

Input Column	Destination Column
YEAR	YEAR
ALCOHOL AND OR DRUGS DISTRACTION SPEED...	ALCOHOL AND OR DRUGS DISTRACTION SPEED...
Copy of SERIOUS INJURIES ALCOHOL&DRUG	SERIOUS INJURIES ALCOHOL&DRUG
Copy of SERIOUS INJURIES DISTRACTION	SERIOUS INJURIES DISTRACTION
Copy of SERIOUS INJURIES SPEEDING	SERIOUS INJURIES SPEEDING

OK

Cancel

Help

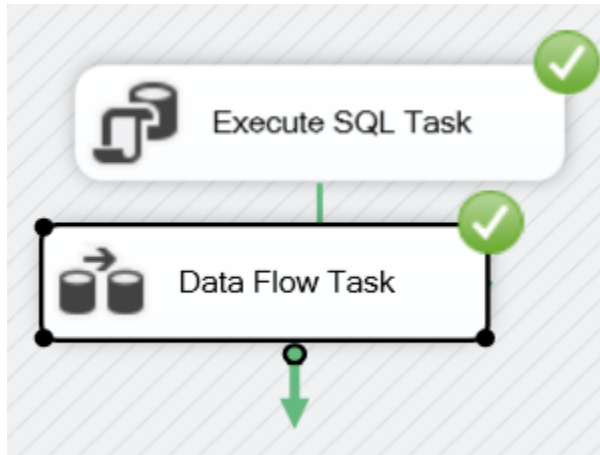
## Output:

	YEAR	ALCOHOL AND OR DRUGS DISTRACTION SPEEDING	SERIOUS INJURIES ALCOHOL&DRUG	SERIOUS INJURIES DISTRACTION	SERIOUS INJURIES SPEEDING
1	2004	N	1614	1494	1474
2	2004	Y	512	632	652
3	2005	N	1728	1641	1698
4	2005	Y	621	708	651
5	2006	N	1744	1504	1699
6	2006	Y	556	796	601
7	2007	N	1719	1563	1613
8	2007	Y	614	770	720
9	2008	N	1565	1400	1468
10	2008	Y	526	691	623
11	2009	N	1457	1300	1433
12	2009	Y	489	646	513
13	2010	N	1466	1213	1365
14	2010	Y	385	638	486
15	2011	N	1341	1069	1243
16	2011	Y	274	546	372
17	2012	N	1400	1125	1353
18	2012	Y	317	592	364
19	2013	N	1333	1008	1291
20	2013	Y	292	617	334
21	2014	N	1461	1115	1413
22	2014	Y	289	632	337
23	2015	N	1453	1142	1417
24	2015	Y	330	641	366
25	2016	N	1559	1260	1465
26	2016	Y	310	609	404

Query executed successfully. LAPTOP-OEAIEUG0\MSSQLSERVER... sa (54) ICBC 00:00:00 26 rows

### Question 3:

Table 3 will group the data from the motor-vehicle-fatalities-by-region.csv and motor-vehicle-serious-injuries-by-region.csv.



Execute SQL Task Editor

General

Parameter Mapping

Result Set

Expressions

Configure the properties required to run SQL statements and stored procedures using the selected connection.

General

Name

Execute SQL Task

Description

Execute SQL Task

Options

TimeOut

0

CodePage

1252

TypeConversionMode

Allowed

Result Set

ResultSet

None

SQL Statement

ConnectionType

OLE DB

Connection

LAPTOP-OEAIEUG0\MSSQLSERVER2017

SQLSourceType

Direct input

SQLStatement

truncate table [dbo].[mvfsiRegion]

IsQueryStoredProcedure

False

BypassPrepare

True

Name

Specifies the name of the task.

Browse...

Build Query...

Parse Query

OK

Cancel

Help

## Sort Transformation Editor

Specify the columns to sort, and set their sort type and their sort order. All nonselected columns are copied unchanged.

### Available Input Columns

<input type="checkbox"/>	Name	Pass Through
<input checked="" type="checkbox"/>	YEAR	<input type="checkbox"/>
<input checked="" type="checkbox"/>	REGION	<input type="checkbox"/>
<input type="checkbox"/>	FATAL VICTIMS	<input checked="" type="checkbox"/>

Input Column	Output Alias	Sort Type	Sort Order	Comparison
YEAR	YEAR	ascending	1	
REGION	REGION	ascending	2	

< >

☐ Remove rows with duplicate sort values

OK

Cancel

Help



## Merge Join Transformation Editor

Configure the properties used to join two sources of sorted data. Select the join type and then specify the columns to be used as the join key. Join keys must be used in the order specified by the sort-key position of the column.

Join type:

Full outer join

Swap Inputs

Sort

<input checked="" type="checkbox"/>	Name	Order	Join Key
<input checked="" type="checkbox"/>	YEAR	1	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	REGION	2	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	FATAL VICTIMS	0	<input type="checkbox"/>

Sort 1

<input checked="" type="checkbox"/>	Name	Order	Join Key
<input checked="" type="checkbox"/>	Year	1	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	Region	2	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	Serious Injuries	0	<input type="checkbox"/>

Input	Input Column	Output Alias
Sort	YEAR	YEAR
Sort	REGION	REGION
Sort	FATAL VICTIMS	FATAL VICTIMS
Sort 1	Year	Year Serious
Sort 1	Region	Region Serious
Sort 1	Serious Injuries	Serious Injuries

OK

Cancel

Help

**Data Conversion Transformation Editor**

Configure the properties used to convert the data type of an input column to a different data type. Depending on the data type to which the column is converted, set the length, precision, scale, and code page of the column.


**Available Input Columns**


<input checked="" type="checkbox"/>	Name
<input type="checkbox"/>	YEAR
<input type="checkbox"/>	REGION
<input checked="" type="checkbox"/>	FATAL VICTIMS
<input type="checkbox"/>	Year Serious
<input type="checkbox"/>	Region Serious
<input checked="" type="checkbox"/>	Serious Injuries


Input Column	Output Alias	Data Type	Length	Precision	Scale	Code Page
FATAL VICTIMS	Copy of FATAL VICTIMS	four-byte unsigned integ...				
Serious Injuries	Copy of Serious Injuries	four-byte unsigned integ...				





Specify the conditions used to direct input rows to specific outputs. If an input row matches no condition, the row is directed to a default output.


+  Variables and Parameters


+  Columns


+  Mathematical Functions

+  String Functions

+  Date/Time Functions

+  NULL Functions

+  Type Casts

+  Operators

Description:

Order	Output Name	Condition
1	SN	ISNULL(YEAR)

Default output name: 

SY

Configure the properties used to insert data into a relational database using an OLE DB provider.

Connection Manager

**Mappings**

Error Output

Available Input Columns

Name
YEAR
REGION
FATAL VICTIMS
Year Serious
Region Serious
Serious Injuries
Copy of FATAL VICTIMS

Available Destination Columns

Name
YEAR
REGION
FATAL VICTIMS
Serious Injuries

Input Column	Destination Column
YEAR	YEAR
REGION	REGION
Copy of FATAL VICTIMS	FATAL VICTIMS
Copy of Serious Injuries	Serious Injuries

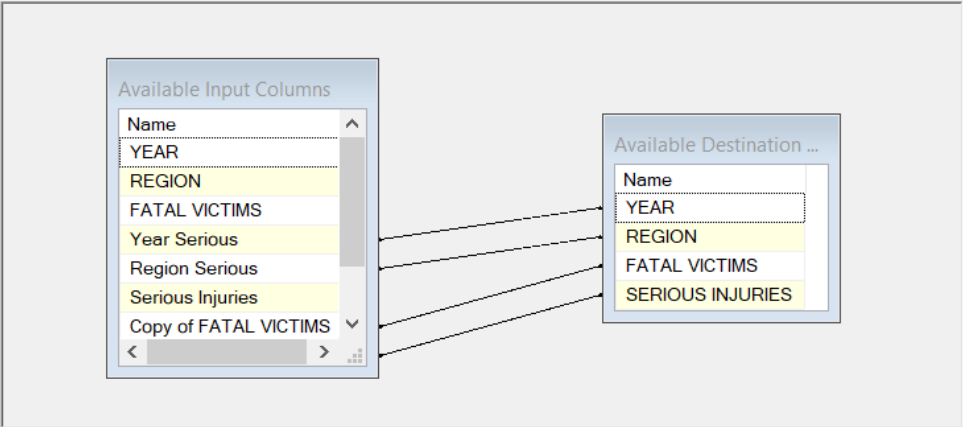
OK

Cancel

Help

Configure the properties used to insert data into a relational database using an OLE DB provider.

Connection Manager  
Mappings  
Error Output



Input Column	Destination Column
Year Serious	YEAR
Region Serious	REGION
Copy of FATAL VICTIMS	FATAL VICTIMS
Copy of Serious Injuries	SERIOUS INJURIES

Create Table

```
CREATE TABLE mvfsiRegion(  
    [YEAR] varchar(50),  
    [REGION] varchar(50),  
    [FATAL VICTIMS] bigint,  
    [Serious Injuries] bigint  
)
```

OK Cancel

## OUTPUT:

100 %				
Results Messages				
	YEAR	REGION	FATAL VICTIMS	Serious Injuries
1	1996	Fraser Valley	83	NULL
2	1996	Greater Vancouver	83	NULL
3	1996	Northern Central	96	NULL
4	1996	Southern Interior	144	NULL
5	1996	Vancouver Island	63	NULL
6	1997	Fraser Valley	108	NULL
7	1997	Greater Vancouver	68	NULL
8	1997	Northern Central	89	NULL
9	1997	Southern Interior	122	NULL
10	1997	Vancouver Island	40	NULL
11	1998	Fraser Valley	78	NULL
12	1998	Greater Vancouver	79	NULL
13	1998	Northern Central	87	NULL
14	1998	Southern Interior	129	NULL
15	1998	Unknown	3	NULL
16	1998	Vancouver Island	48	NULL
17	1999	Fraser Valley	71	NULL
18	1999	Greater Vancouver	80	NULL
19	1999	Northern Central	78	NULL
20	1999	Southern Interior	139	NULL
21	1999	Unknown	1	NULL
22	1999	Vancouver Island	40	NULL
23	2000	Fraser Valley	82	NULL
24	2000	Greater Vancouver	58	NULL
25	2000	Northern Central	68	NULL
26	2000	Southern Interior	140	NULL
27	2000	Vancouver Island	47	NULL
28	2001	Fraser Valley	101	NULL
29	2001	Greater Vancouver	63	NULL
30	2001	Northern Central	77	NULL
31	2001	Southern Interior	110	NULL
32	2001	Unknown	2	NULL
33	2001	Vancouver Island	40	NULL
Query executed successfully. LAPTOP-OEAIEUG0\MSSQLSERVER... sa (62) ICBC 00:00:00 121 rows				
34	2002	Fraser Valley	97	NULL
35	2002	Greater Vancouver	62	NULL
36	2002	Northern Central	93	NULL
37	2002	Southern Interior	165	NULL
38	2002	Vancouver Island	38	NULL
39	2003	Fraser Valley	104	NULL
40	2003	Greater Vancouver	67	NULL
41	2003	Northern Central	76	NULL
42	2003	Southern Interior	138	NULL
43	2003	Vancouver Island	63	NULL
44	2004	Fraser Valley	89	484
45	2004	Greater Vancouver	76	435
46	2004	Northern Central	79	256
47	2004	Southern Interior	137	560
48	2004	Vancouver Island	59	390
49	2004	Unknown	NULL	1
50	2005	Unknown	NULL	0
51	2005	Fraser Valley	93	500
52	2005	Greater Vancouver	88	528
53	2005	Northern Central	77	303
54	2005	Southern Interior	133	593
55	2005	Vancouver Island	61	425
56	2006	Fraser Valley	80	479
57	2006	Greater Vancouver	63	502
58	2006	Northern Central	71	307
59	2006	Southern Interior	133	632
60	2006	Vancouver Island	55	380
61	2006	Unknown	NULL	0
62	2007	Unknown	NULL	0
Query executed successfully. LAPTOP-OEAIEUG0\MSSQLSERVER... sa (71) ICBC 00:00:00 121 rows				

## Question 4:

Table 4 will group the data from the motor-vehicle-fatalities-by-month.csv and motor-vehicle-serious-injuries-by-month.csv.





Configure the properties required to run SQL statements and stored procedures using the selected connection.

**General**

Parameter Mapping

Result Set

Expressions

▼ **General**Name **Execute SQL Task**Description **Execute SQL Task**▼ **Options**TimeOut **0**CodePage **1252**TypeConversionMode **Allowed**▼ **Result Set**ResultSet **None**▼ **SQL Statement**ConnectionType **OLE DB**Connection **LAPTOP-OEAIEUG0\MSSQLSERVER2017**SQLSourceType **Direct input**SQLStatement **truncate table [dbo].[mvfsiMonth]**IsQueryStoredProcedure **False**BypassPrepare **True****Name**

Specifies the name of the task.

Browse...

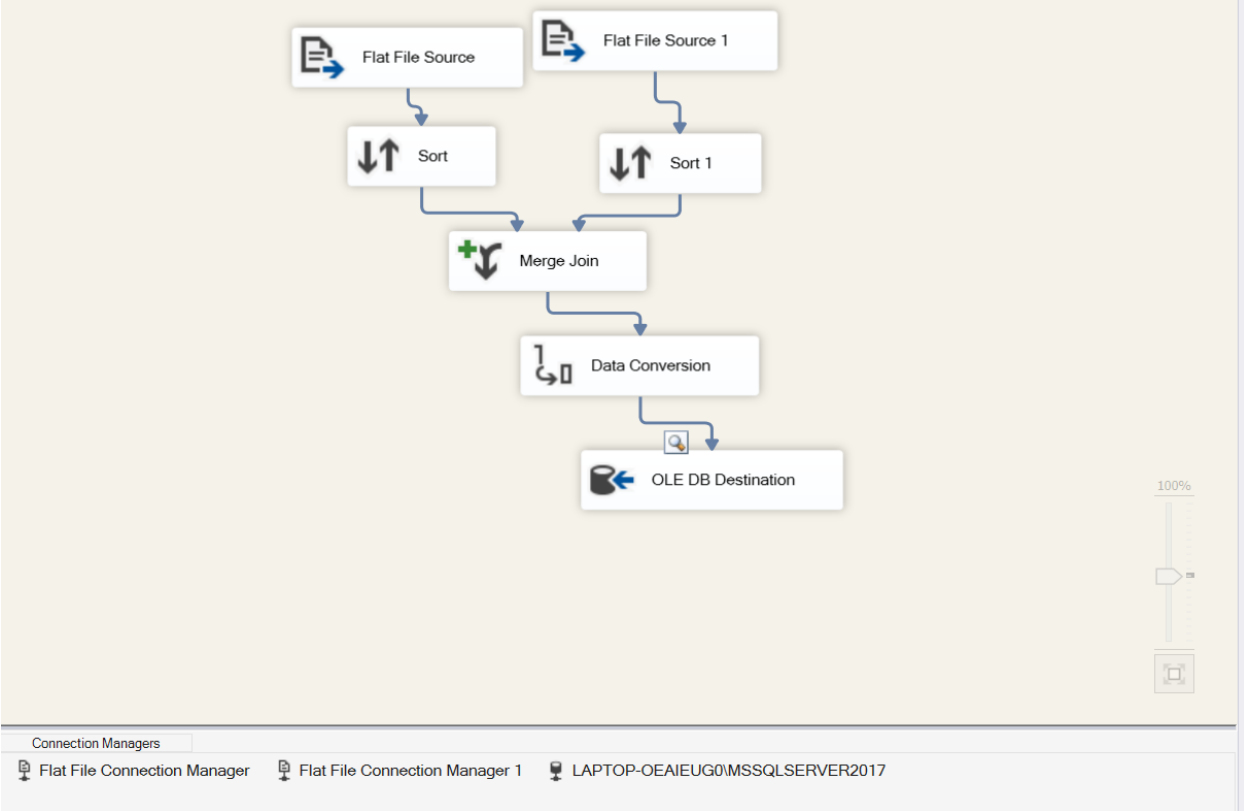
Build Query...

Parse Query

OK

Cancel

Help





Specify the columns to sort, and set their sort type and their sort order. All nonselected columns are copied unchanged.

## Available Input Columns

<input type="checkbox"/>	Name	Pass Through
<input checked="" type="checkbox"/>	YEAR_AND_MONTH	<input type="checkbox"/>
<input type="checkbox"/>	FATAL VICTIMS	<input checked="" type="checkbox"/>

Input Column	Output Alias	Sort Type	Sort Order	Comparison
YEAR_AND_MONTH	YEAR_AND_MONTH	ascending	1	

&lt; &gt;

☐ Remove rows with duplicate sort values

OK

Cancel

Help

Configure the properties used to join two sources of sorted data. Select the join type and then specify the columns to be used as the join key. Join keys must be used in the order specified by the sort-key position of the column.

Join type:

Full outer join

Swap Inputs

Sort

<input checked="" type="checkbox"/>	Name	Order	J
<input checked="" type="checkbox"/>	FATAL VICTIMS	0	
<input checked="" type="checkbox"/>	YEAR_AND_MONTH	1	

Sort 1

<input type="checkbox"/>	Name	Order	J
<input type="checkbox"/>	YEAR_AND_MONTH	1	
<input checked="" type="checkbox"/>	SERIOUS INJURIES	0	

Input	Input Column	Output Alias
Sort	YEAR_AND_MONTH	YEAR_AND_MONTH
Sort	FATAL VICTIMS	FATAL VICTIMS
Sort 1	SERIOUS INJURIES	SERIOUS INJURIES

Configure the properties used to convert the data type of an input column to a different data type. Depending on the data type to which the column is converted, set the length, precision, scale, and code page of the column.

## Available Input Columns

- ☒ Name
- ☐ YEAR\_AND\_MONTH
- ☒ FATAL VICTIMS
- ☒ SERIOUS INJURIES

Input Column	Output Alias	Data Type	Length	Precision	Scale	Code Page
FATAL VICTIMS	Copy of FATAL VICTIMS	four-byte unsigned integ...				
SERIOUS INJURIES	Copy of SERIOUS INJU...	four-byte unsigned integ...				

< >

Configure Error Output...

OK

Cancel

Help

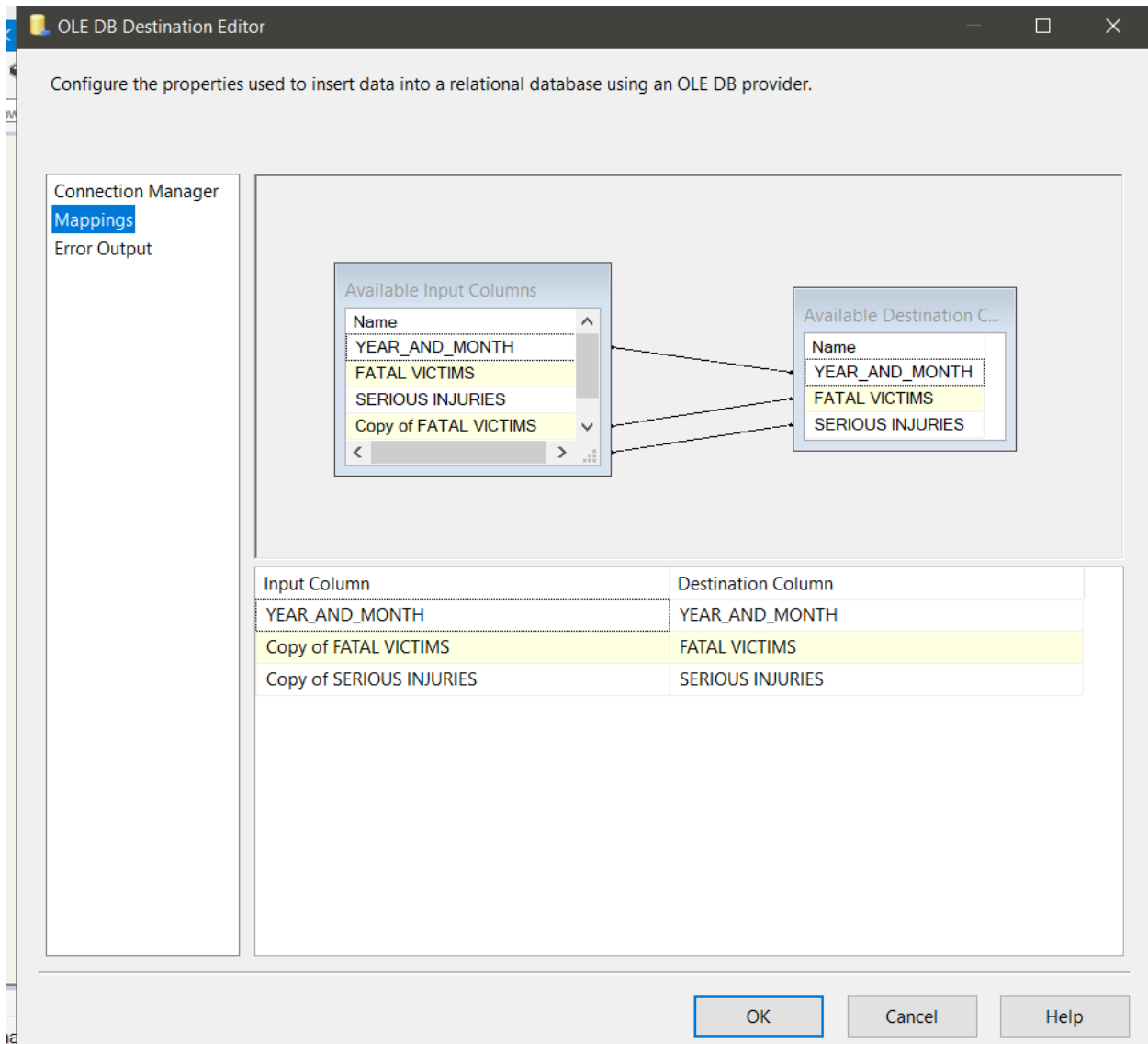


## Create Table

```
CREATE TABLE mvfsiMonth (  
  [YEAR_AND_MONTH] varchar(50),  
  [FATAL VICTIMS] bigint,  
  [SERIOUS INJURIES] bigint  
)
```

OK

Cancel



## OUTPUT:

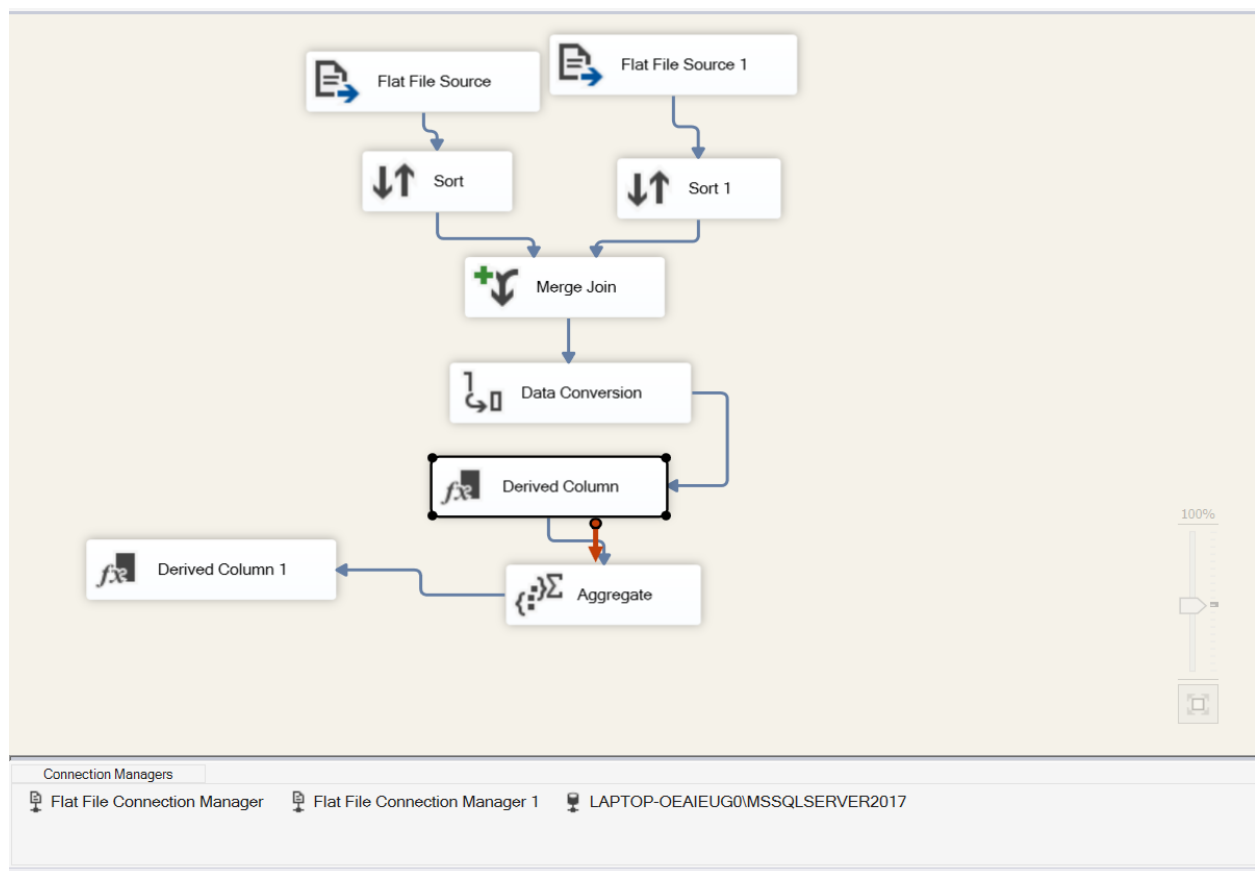
100 %			
Results Messages			
	YEAR AND MONTH	FATAL VICTIMS	SERIOUS INJURIES
1	1996-01-01	39	NULL
2	1996-02-01	32	NULL
3	1996-03-01	31	NULL
4	1996-04-01	36	NULL
5	1996-05-01	31	NULL
6	1996-06-01	48	NULL
7	1996-07-01	50	NULL
8	1996-08-01	36	NULL
9	1996-09-01	43	NULL
10	1996-10-01	36	NULL
11	1996-11-01	43	NULL
12	1996-12-01	44	NULL
13	1997-01-01	23	NULL
14	1997-02-01	32	NULL
15	1997-03-01	29	NULL
16	1997-04-01	26	NULL
17	1997-05-01	47	NULL
18	1997-06-01	34	NULL
19	1997-07-01	47	NULL
20	1997-08-01	49	NULL
21	1997-09-01	36	NULL
22	1997-10-01	34	NULL
23	1997-11-01	30	NULL
24	1997-12-01	40	NULL
25	1998-01-01	31	NULL
26	1998-02-01	20	NULL
27	1998-03-01	33	NULL
28	1998-04-01	40	NULL
29	1998-05-01	39	NULL
30	1998-06-01	36	NULL
31	1998-07-01	38	NULL
32	1998-08-01	44	NULL

Query executed successfully. LAPTOP-OEAIEUG0\MSSQLSERVER... sa (70) ICBC 00:00:00 252 rows

224	2014-08-01	30	223
225	2014-09-01	30	172
226	2014-10-01	31	143
227	2014-11-01	21	142
228	2014-12-01	37	149
229	2015-01-01	29	121
230	2015-02-01	16	102
231	2015-03-01	15	98
232	2015-04-01	20	127
233	2015-05-01	26	150
234	2015-06-01	25	166
235	2015-07-01	29	201
236	2015-08-01	27	175
237	2015-09-01	25	161
238	2015-10-01	25	148
239	2015-11-01	28	130
240	2015-12-01	30	204
241	2016-01-01	25	141
242	2016-02-01	14	124
243	2016-03-01	33	126
244	2016-04-01	23	131
245	2016-05-01	14	158
246	2016-06-01	19	159
247	2016-07-01	26	167
248	2016-08-01	30	226
249	2016-09-01	27	196
250	2016-10-01	24	122
251	2016-11-01	31	152
252	2016-12-01	21	167

Query executed successfully. LAPTOP-OEAIEUG0\MSSQLSERVER... sa (69) ICBC 00:00:00 252 rows

IF WE WANT THE SUM AND DISPLAY ONLY THE MONTH, WE HAVE TO ADD THE AGGREGATE FUNCTION AND THE OUTPUT WILL CHANGE:



Data Conversion Transformation Editor

Configure the properties used to convert the data type of an input column to a different data type. Depending on the data type to which the column is converted, set the length, precision, scale, and code page of the column.

Available Input Columns

<input checked="" type="checkbox"/>	Name
<input checked="" type="checkbox"/>	YEAR_AND_MONTH
<input checked="" type="checkbox"/>	FATAL VICTIMS
<input checked="" type="checkbox"/>	SERIOUS INJURIES

Input Column	Output Alias	Data Type	Length	Precision	Scale	Code Page
YEAR_AND_MONTH	Copy of YEAR_AND_M...	date [DT_DATE]				
FATAL VICTIMS	Copy of FATAL VICTIMS	four-byte unsigned integ...				
SERIOUS INJURIES	Copy of SERIOUS INJU...	four-byte unsigned integ...				



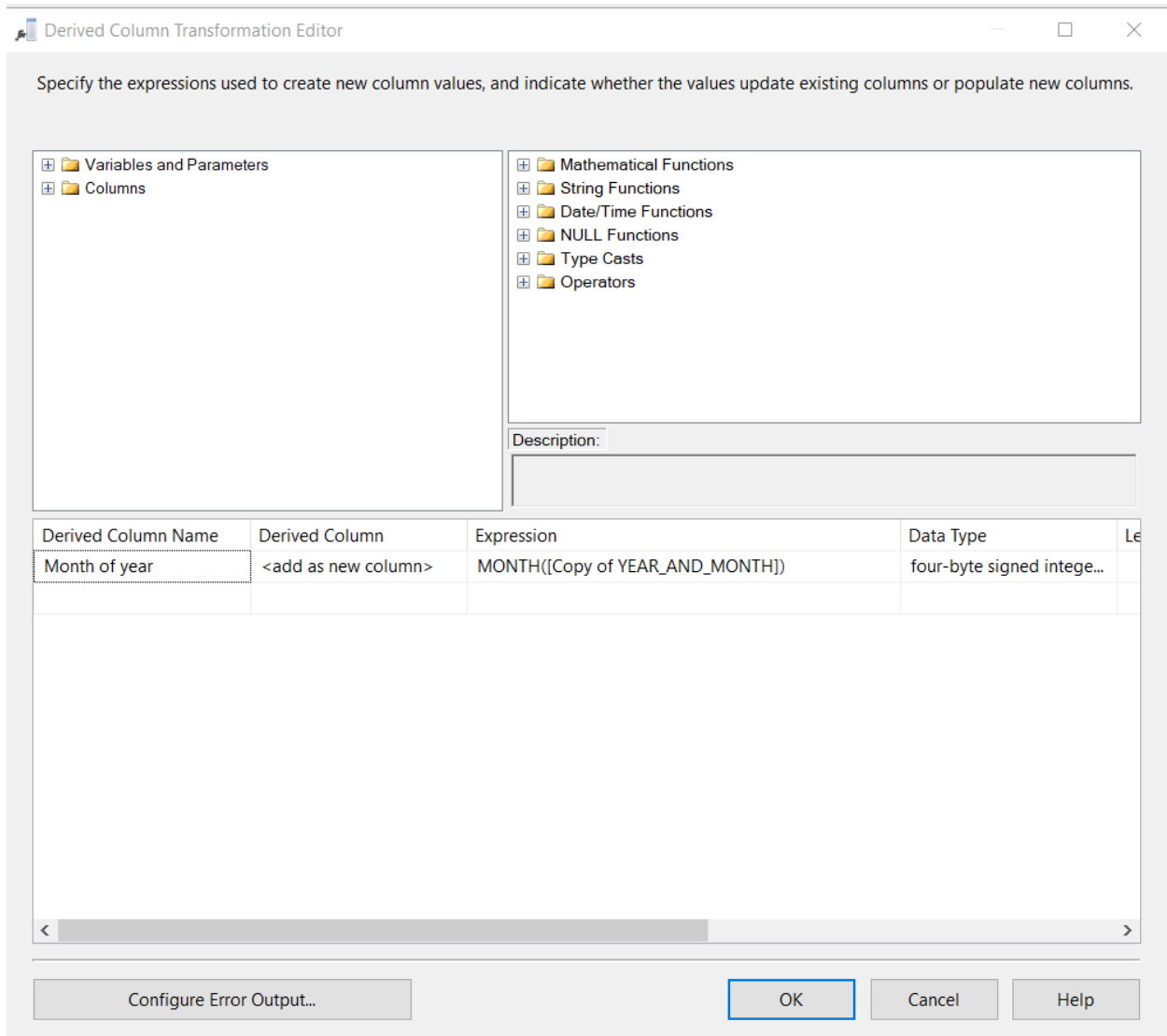
Configure Error Output...

OK

Cancel

Help





Aggregations **Advanced**

Configure the properties used to perform group by operations and to calculate aggregate values. Optionally, apply comparison options to the operation. To configure multiple group by operations, click Advanced.

Advanced ▼

## Available Input Columns

<input checked="" type="checkbox"/>	Name
<input type="checkbox"/>	(*)
<input type="checkbox"/>	YEAR_AND_MONTH
<input type="checkbox"/>	FATAL VICTIMS
<input type="checkbox"/>	SERIOUS INJURIES
<input type="checkbox"/>	Copy of YEAR_AND_MONTH
<input checked="" type="checkbox"/>	Copy of FATAL VICTIMS
<input checked="" type="checkbox"/>	Copy of SERIOUS INJURIES

Input Column	Output Alias	Operation	Comparison
Month of year	Month of year	Group by	
Copy of FATAL VICTIMS	Copy of FATAL VICTIMS	Sum	
Copy of SERIOUS INJURIES	Copy of SERIOUS INJURIES	Sum	

OK

Cancel

Help



Create Table

```
CREATE TABLE mvfsiMonth (  
    [Month of year] int,  
    [FATAL VICTIMS] numeric(20,0),  
    [SERIOUS INJURIES] numeric(20,0)  
)
```

OK

Cancel

Configure the properties used to insert data into a relational database using an OLE DB provider.

Connection Manager

**Mappings**

Error Output

Available Input Columns

Name
Month of year
Copy of FATAL VICTIMS
Copy of SERIOUS INJURIES

Available Destination ...

Name
Month of year
FATAL VICTIMS
SERIOUS INJURIES

Input Column	Destination Column
Month of year	Month of year
Copy of FATAL VICTIMS	FATAL VICTIMS
Copy of SERIOUS INJURIES	SERIOUS INJURIES

OK

Cancel

Help

## OUTPUT:

100 %

Results Messages

	Month of year	FATAL VICTIMS	SERIOUS INJURIES
1	1	623	1574
2	2	508	1436
3	3	542	1680
4	4	545	1866
5	5	606	2111
6	6	700	2366
7	7	764	2687
8	8	791	2816
9	9	702	2365
10	10	701	2150
11	11	663	2103
12	12	774	2201

✓ Query executed successfully. | LAPTOP-OEAIEUG0\MSSQLSERVER... | sa (64) | ICBC | 00:00:00 | 12 rows