HW 07 Staging

DWBI

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Data is first loaded into a staging table then using data conversion, transformation is done. Finally, that data is loaded in destination table.

Create Table Script

For Staging Table

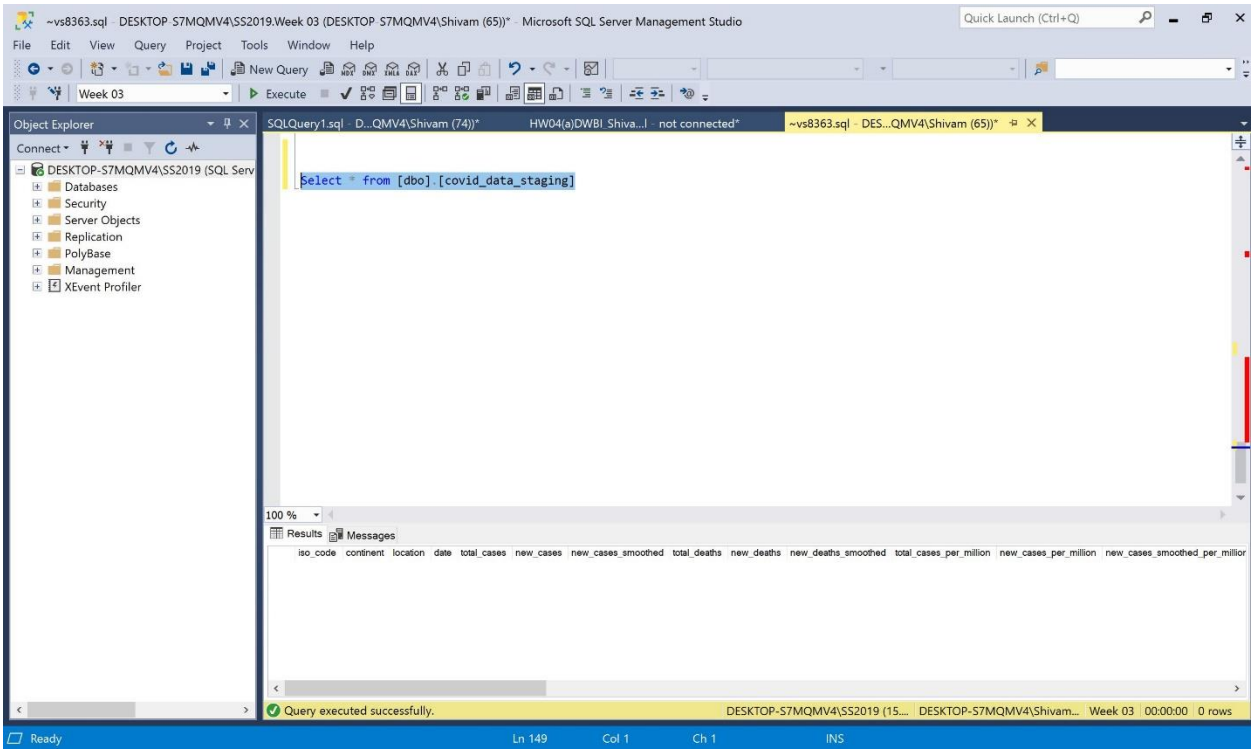
```
CREATE TABLE [dbo].[covid_data_staging](
[iso_code] [varchar](255) NULL,
[continent] [varchar](255) NULL,
[location] [varchar](255) NULL,
[date] [varchar](255) NULL,
[total_cases] [varchar](255) NULL,
[new_cases] [varchar](255) NULL,
[new_cases_smoothed] [varchar](255) NULL,
[total_deaths] [varchar](255) NULL,
[new_deaths] [varchar](255) NULL,
[new_deaths_smoothed] [varchar](255) NULL,
[total_cases_per_million] [varchar](255) NULL,
[new_cases_per_million] [varchar](255) NULL,
[new_cases_smoothed_per_million] [varchar](255) NULL,
[total_deaths_per_million] [varchar](255) NULL,
[new_deaths_per_million] [varchar](255) NULL,
[new_deaths_smoothed_per_million] [varchar](255) NULL,
[total_tests] [varchar](255) NULL,
[new_tests] [varchar](255) NULL,
[new_tests_smoothed] [varchar](255) NULL,
[total_tests_per_thousand] [varchar](255) NULL,
[new_tests_per_thousand] [varchar](255) NULL,
[new_tests_smoothed_per_thousand] [varchar](255) NULL,
[tests_per_case] [varchar](255) NULL,
[positive_rate] [varchar](255) NULL,
[tests_units] [varchar](255) NULL,
[stringency_index] [varchar](255) NULL,
[population] [varchar](255) NULL,
[population_density] [varchar](255) NULL,
[median_age] [varchar](255) NULL,
[aged_65_older] [varchar](255) NULL,
[aged_70_older] [varchar](255) NULL,
[gdp_per_capita] [varchar](255) NULL,
[extreme_poverty] [varchar](255) NULL,
[cardiovasc_death_rate] [varchar](255) NULL,
[diabetes_prevalence] [varchar](255) NULL,
[female_smokers] [varchar](255) NULL,
[male_smokers] [varchar](255) NULL,
[handwashing_facilities] [varchar](255) NULL,
[hospital_beds_per_thousand] [varchar](255) NULL,
```

```
[life_expectancy] [varchar](255) NULL,
[human_development_index] [varchar](255) NULL
) ON [PRIMARY]
GO
```

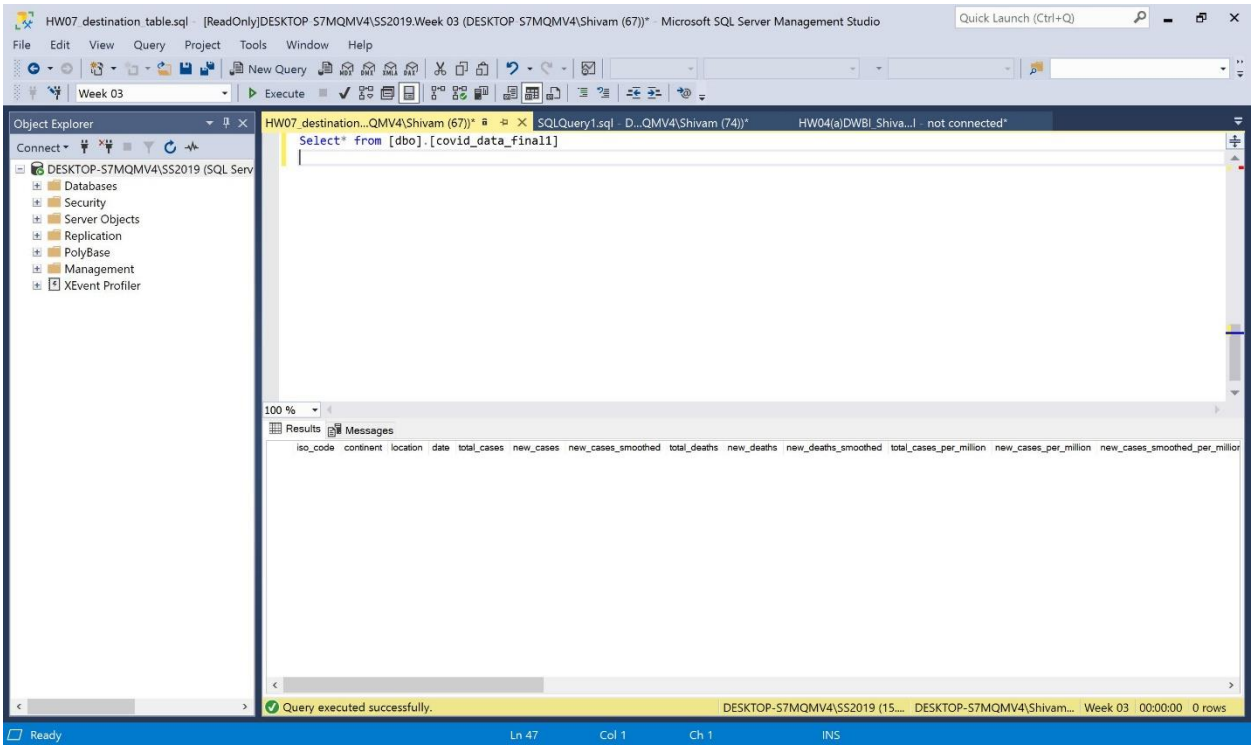
For Destination Table

```
CREATE TABLE [dbo].[covid_data_final](
[iso_code] [varchar](255) NULL,
[continent] [varchar](255) NULL,
[location] [varchar](255) NULL,
[date] [date] NULL,
[total_cases] [int] NULL,
[new_cases] [int] NULL,
[new_cases_smoothed] [float] NULL,
[total_deaths] [int] NULL,
[new_deaths] [int] NULL,
[new_deaths_smoothed] [float] NULL,
[total_cases_per_million] [float] NULL,
[new_cases_per_million] [float] NULL,
[new_cases_smoothed_per_million] [float] NULL,
[total_deaths_per_million] [float] NULL,
[new_deaths_per_million] [float] NULL,
[new_deaths_smoothed_per_million] [float] NULL,
[total_tests] [float] NULL,
[new_tests] [int] NULL,
[new_tests_smoothed] [float] NULL,
[total_tests_per_thousand] [float] NULL,
[new_tests_per_thousand] [float] NULL,
[new_tests_smoothed_per_thousand] [float] NULL,
[tests_per_case] [float] NULL,
[positive_rate] [float] NULL,
[tests_units] [varchar](255) NULL,
[stringency_index] [float] NULL,
[population] [bigint] NULL,
[population_density] [float] NULL,
[median_age] [float] NULL,
[aged_65_older] [float] NULL,
[aged_70_older] [float] NULL,
[gdp_per_capita] [float] NULL,
[extreme_poverty] [float] NULL,
[cardiovasc_death_rate] [float] NULL,
[diabetes_prevalence] [float] NULL,
[female_smokers] [float] NULL,
[male_smokers] [float] NULL,
[handwashing_facilities] [float] NULL,
[hospital_beds_per_thousand] [float] NULL,
[life_expectancy] [float] NULL,
[human_development_index] [float] NULL
) ON [PRIMARY]
GO
```

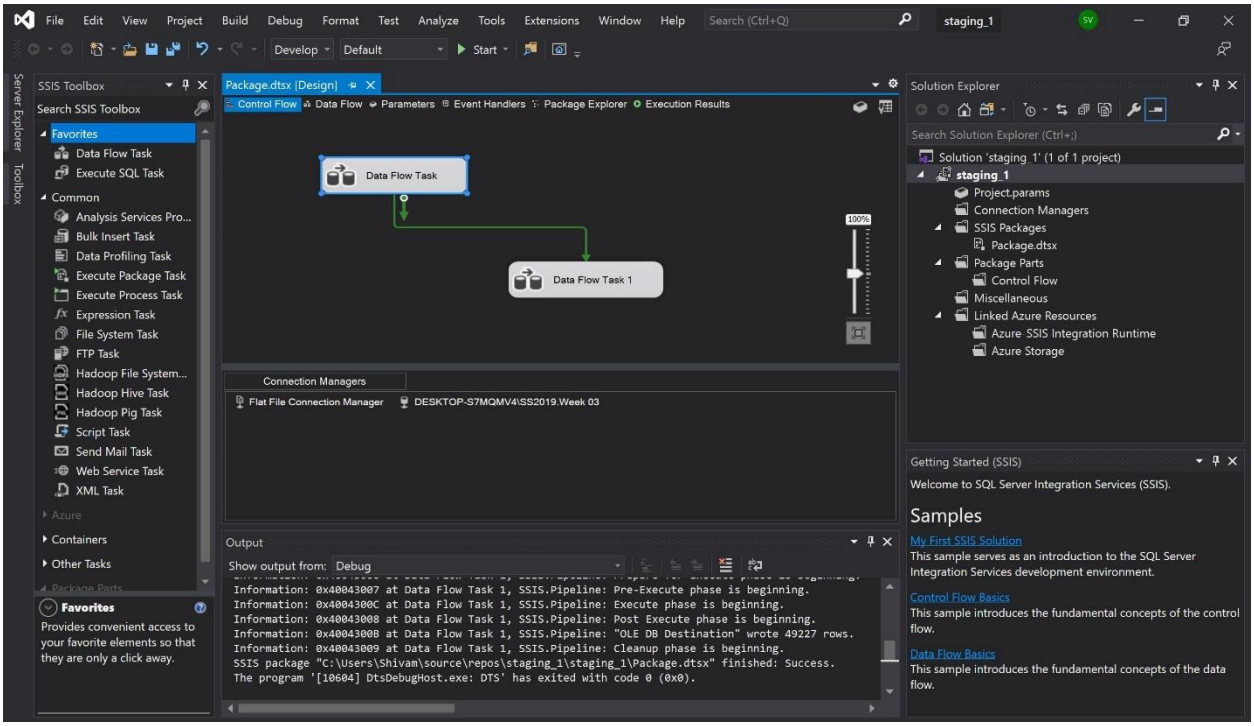
Staging table before data population



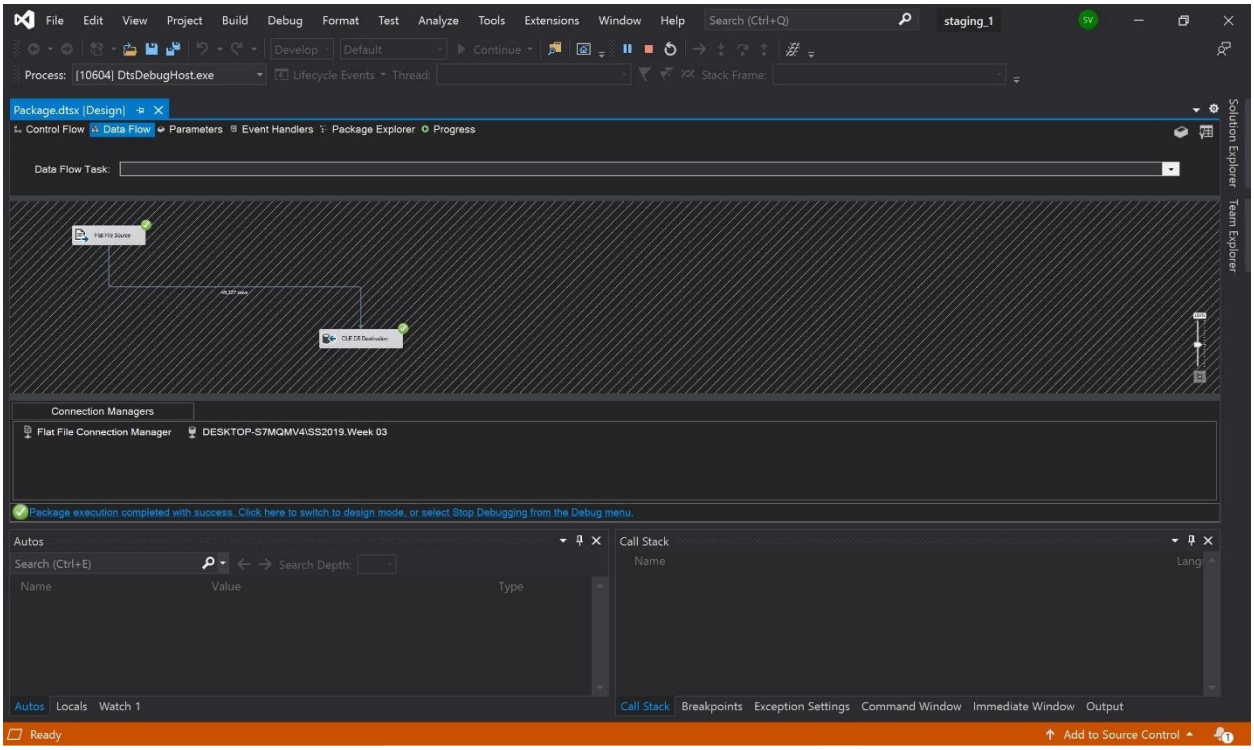
Final table before data population



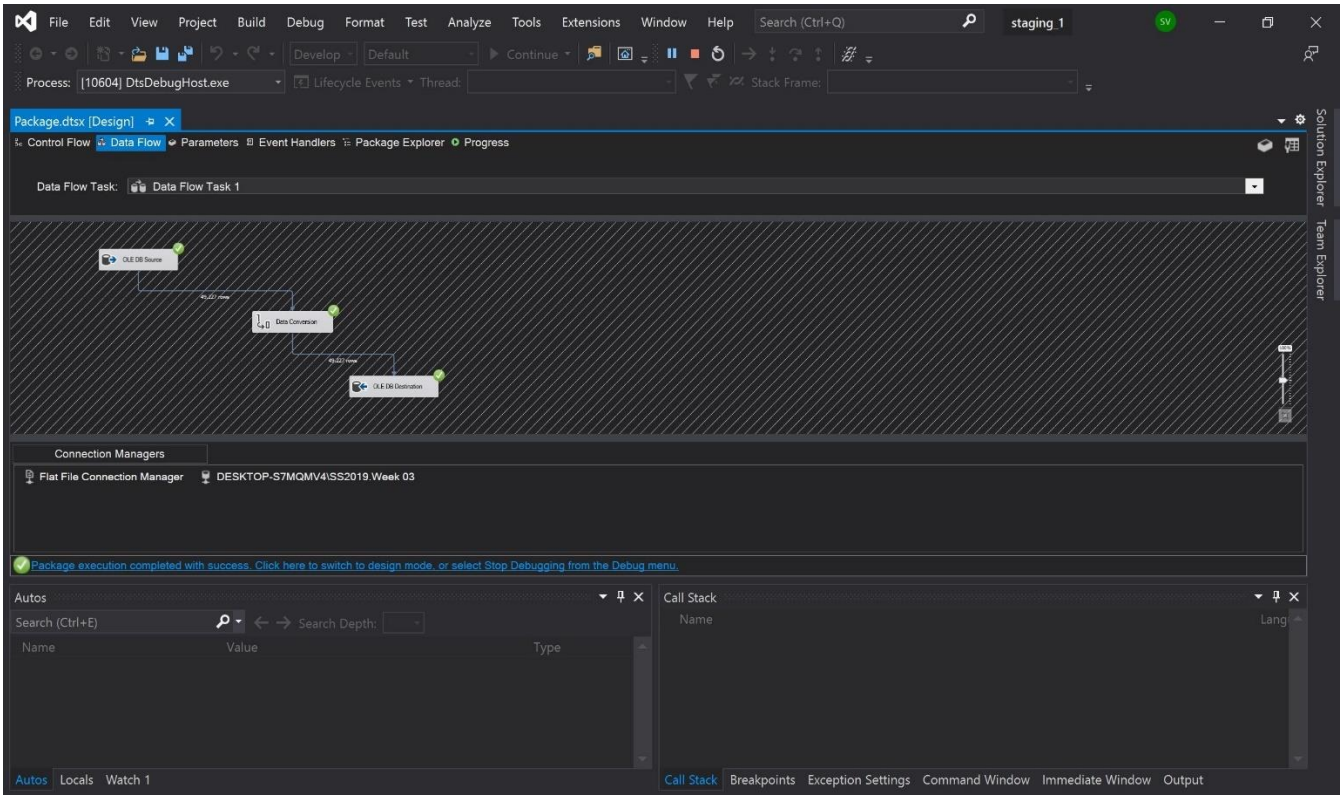
Screenshot of Control Flow



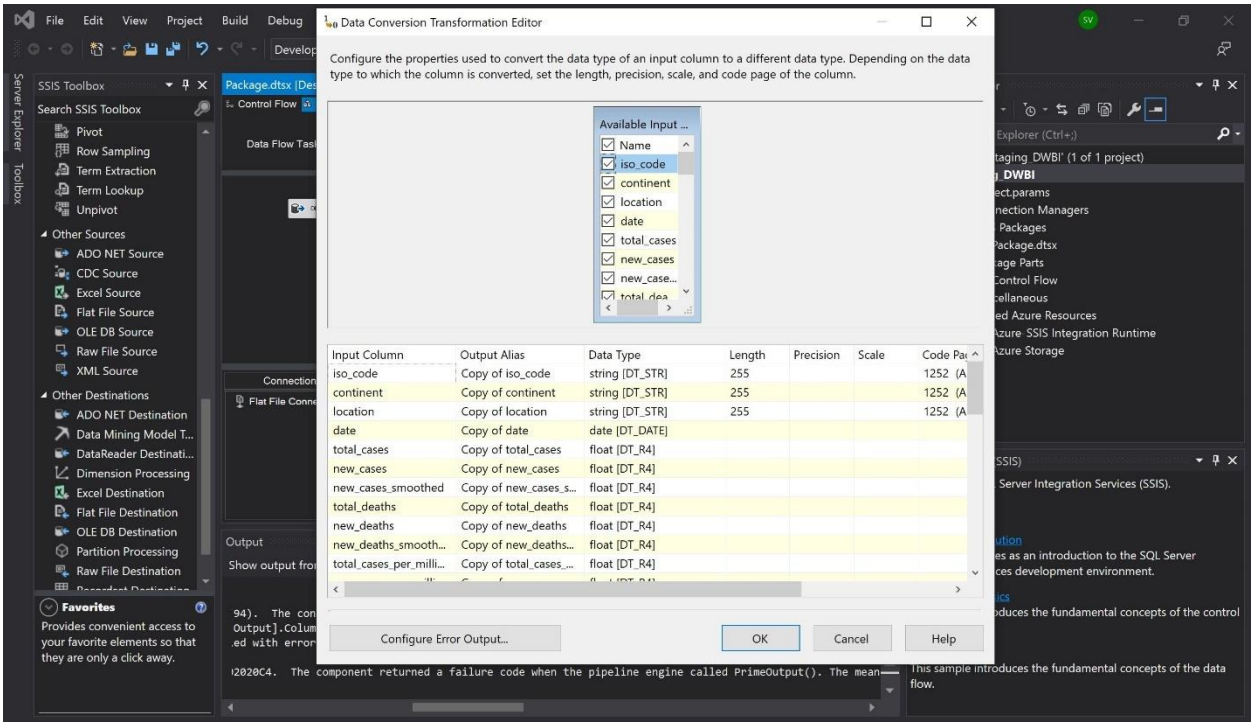
Screenshot of Data flow Task 1 (populating data from flat file to staging table)



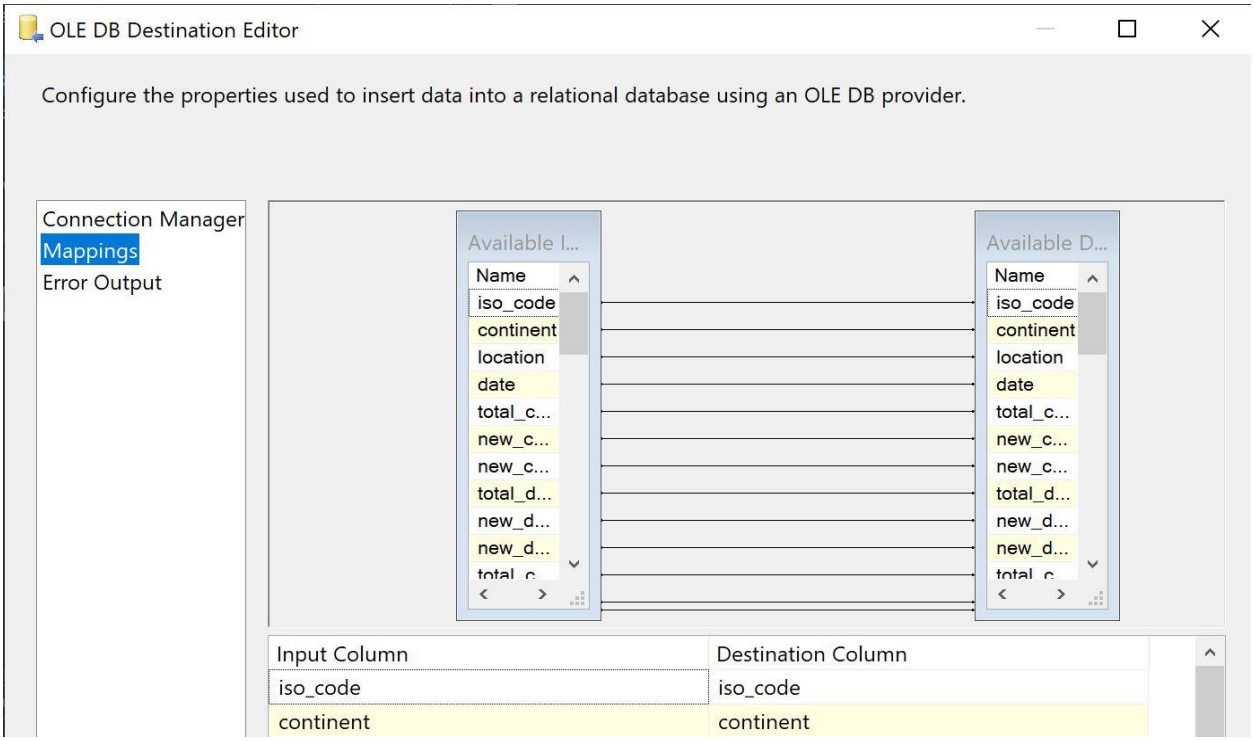
Screenshot of Data flow Task 2 (populating data from staging table to destination table)



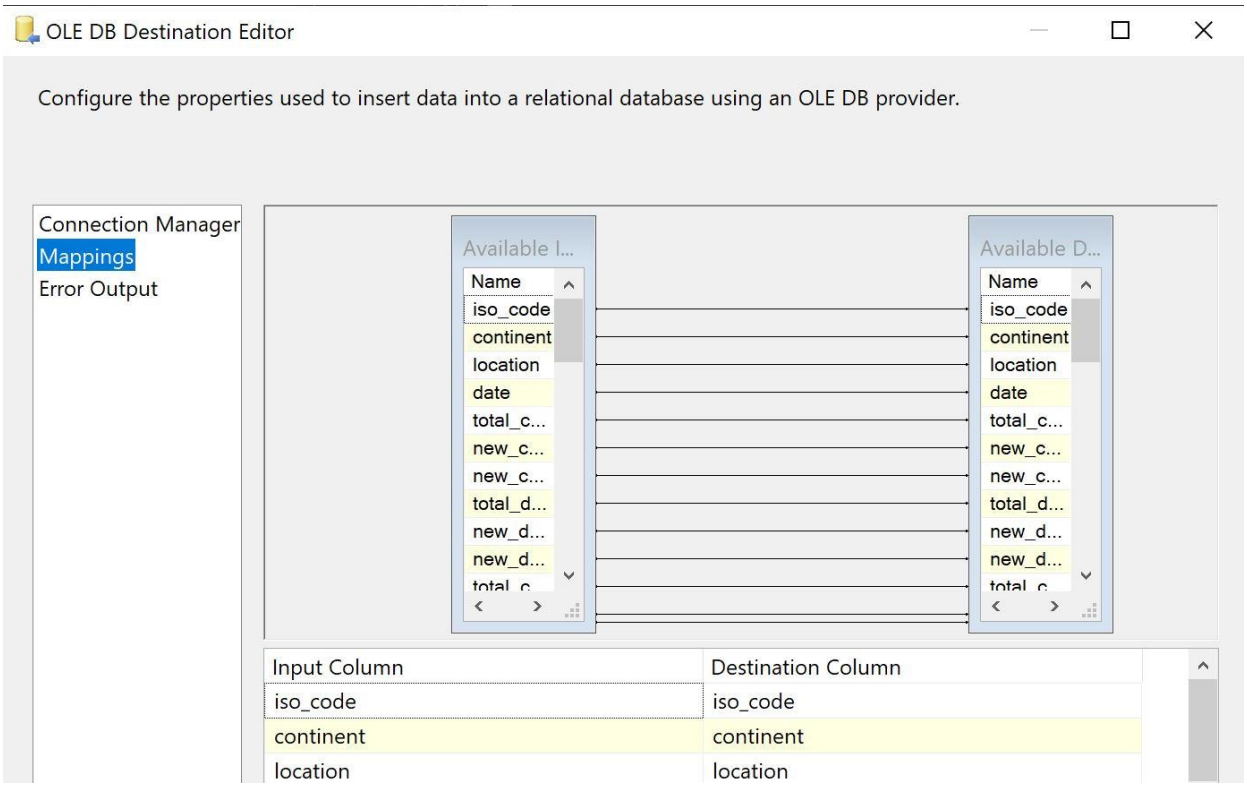
Screenshot of Data Conversion Task



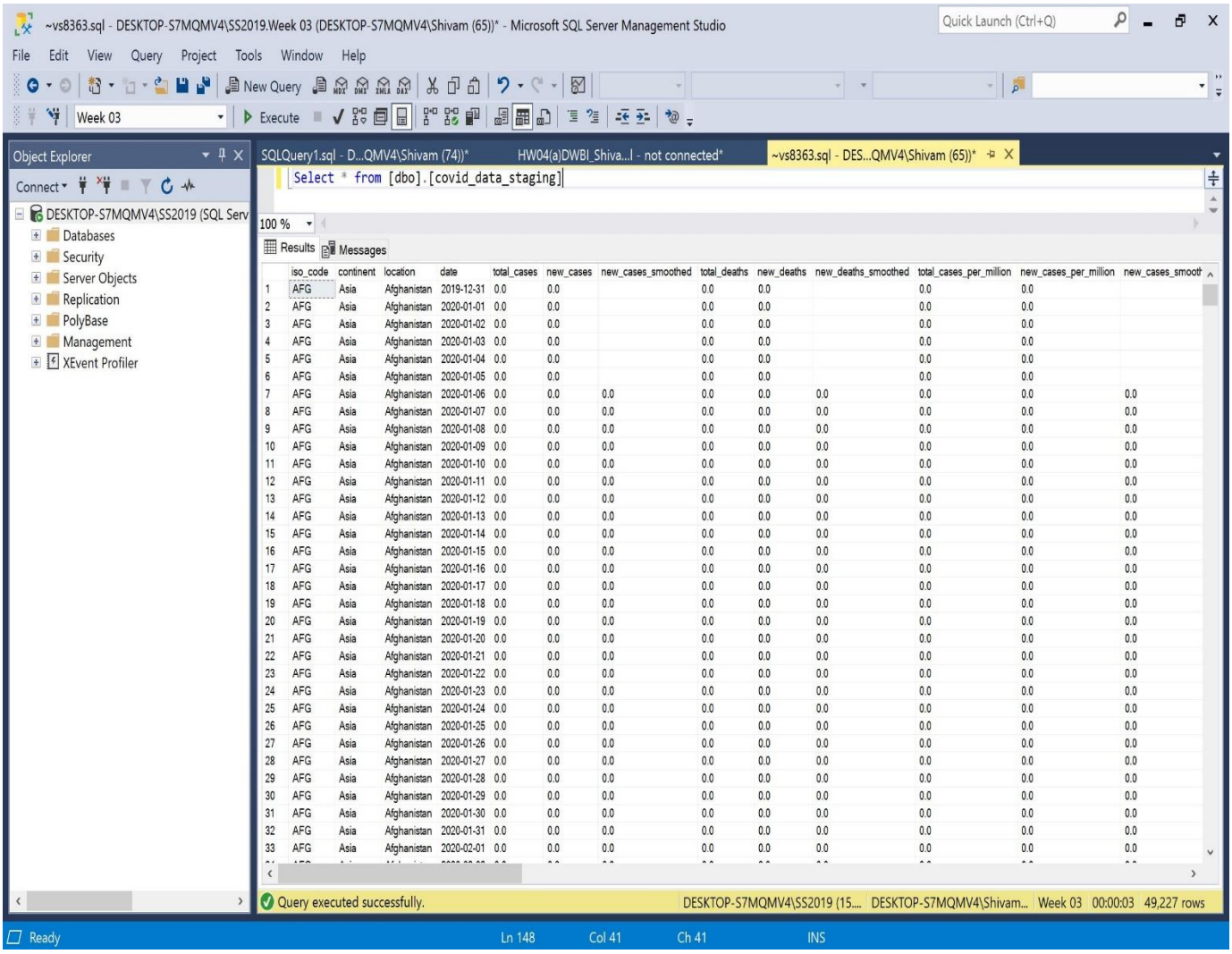
Screenshot of staging table mappings



Screenshot of Destination table mappings



Screenshot of data populated into staging table



	iso_code	continent	location	date	total_cases	new_cases	new_cases_smoothed	total_deaths	new_deaths	new_deaths_smoothed	total_cases_per_million	new_cases_per_million	new_cases_smooth
1	AFG	Asia	Afghanistan	2019-12-31	0.0	0.0		0.0	0.0		0.0	0.0	
2	AFG	Asia	Afghanistan	2020-01-01	0.0	0.0		0.0	0.0		0.0	0.0	
3	AFG	Asia	Afghanistan	2020-01-02	0.0	0.0		0.0	0.0		0.0	0.0	
4	AFG	Asia	Afghanistan	2020-01-03	0.0	0.0		0.0	0.0		0.0	0.0	
5	AFG	Asia	Afghanistan	2020-01-04	0.0	0.0		0.0	0.0		0.0	0.0	
6	AFG	Asia	Afghanistan	2020-01-05	0.0	0.0		0.0	0.0		0.0	0.0	
7	AFG	Asia	Afghanistan	2020-01-06	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	AFG	Asia	Afghanistan	2020-01-07	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	AFG	Asia	Afghanistan	2020-01-08	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	AFG	Asia	Afghanistan	2020-01-09	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	AFG	Asia	Afghanistan	2020-01-10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	AFG	Asia	Afghanistan	2020-01-11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	AFG	Asia	Afghanistan	2020-01-12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	AFG	Asia	Afghanistan	2020-01-13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	AFG	Asia	Afghanistan	2020-01-14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	AFG	Asia	Afghanistan	2020-01-15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	AFG	Asia	Afghanistan	2020-01-16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18	AFG	Asia	Afghanistan	2020-01-17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	AFG	Asia	Afghanistan	2020-01-18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	AFG	Asia	Afghanistan	2020-01-19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	AFG	Asia	Afghanistan	2020-01-20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	AFG	Asia	Afghanistan	2020-01-21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	AFG	Asia	Afghanistan	2020-01-22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24	AFG	Asia	Afghanistan	2020-01-23	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	AFG	Asia	Afghanistan	2020-01-24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	AFG	Asia	Afghanistan	2020-01-25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27	AFG	Asia	Afghanistan	2020-01-26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28	AFG	Asia	Afghanistan	2020-01-27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29	AFG	Asia	Afghanistan	2020-01-28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	AFG	Asia	Afghanistan	2020-01-29	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
31	AFG	Asia	Afghanistan	2020-01-30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
32	AFG	Asia	Afghanistan	2020-01-31	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
33	AFG	Asia	Afghanistan	2020-02-01	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Screenshot of data populated into destination table