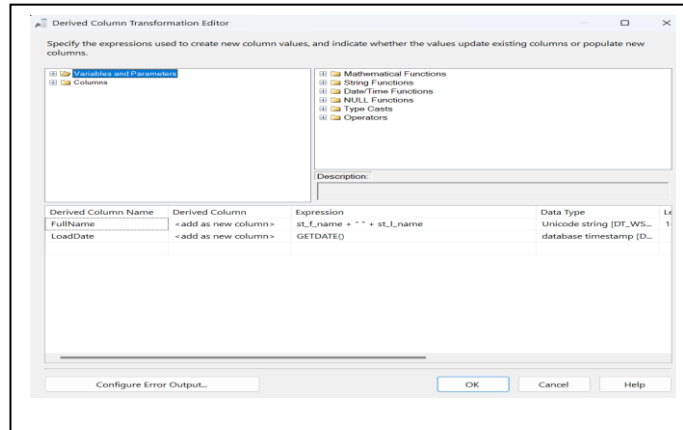


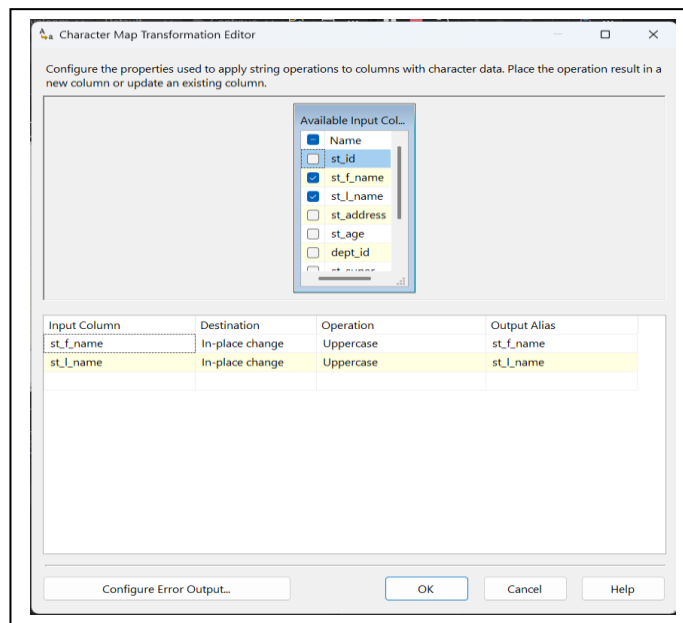
# SSIS Task

## 1. Screenshot of each Transformation:

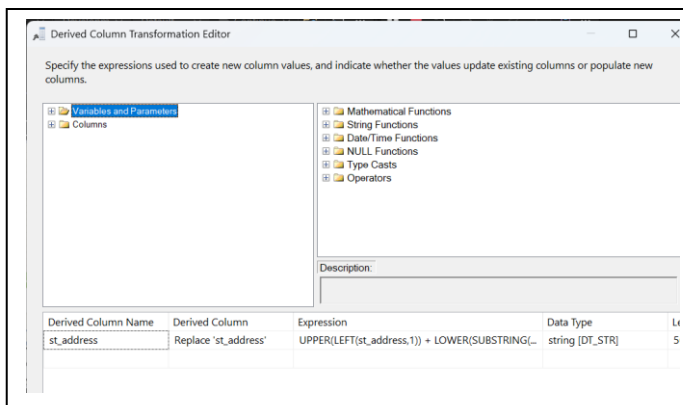
1-



2-



3-



4-

**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 column which the column is converted, set the length, precision, scale, and code page of the column.

Available Input Columns

- ☒ Name
- ☒ st\_id
- ☐ st\_f\_name
- ☐ st\_l\_name
- ☐ st\_address
- ☒ st\_age
- ☐ dept\_id

Input Column	Output Alias	Data Type	Length	Precision	Scale
st_age	Copy of st_age	four-byte unsigned integ...			

5-

**Copy Column Transformation Editor**

Configure the properties used to copy input columns.

Available Input Columns

- ☒ Name
- ☒ st\_id
- ☐ st\_f\_name
- ☐ st\_l\_name
- ☐ st\_address
- ☐ st\_age
- ☒ dept\_id
- ☐ st\_super
- ☐ FullName
- ☐ LoadDate

Input Column	Output Alias
dept_id	dept_id_copy

6-

**Derived Column Transformation Editor**

Specify the expressions used to create new column values, and indicate whether the values update existing columns or populate new columns.

Variables and Functions

- Mathematical Functions
- String Functions
- Date/Time Functions
- NULL Functions
- Type Casts
- Operators

Description:

Derived Column Name	Derived Column	Expression	Data Type	Length
st_address	Replace 'st_address'	TRIM(st_address)	string (DT_STR)	5

7-

**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

- ☒ Name
- ☒ st\_id
- ☐ st\_f\_name
- ☐ st\_l\_name
- ☐ st\_address
- ☒ st\_age
- ☒ dept\_id

Input Column	Output Alias	Sort Type	Sort Order
st_age	st_age	descending	2
dept_id	dept_id	ascending	1

## 2. Why Derived Column was used:

Derived Column was used to add new columns and modify data during the data flow, like creating full name and adding load date, without changing the source table.

### Difference between Derived Column and Copy Column:

Derived Column can create new columns and apply expressions, while Copy Column only makes a simple copy of an existing column without any change.

### Why Data Conversion was required:

Data Conversion was needed to fix data type differences between source and destination, so the data can be inserted correctly.

3.

The screenshot shows the SQL Server Enterprise Manager interface. The left pane displays the server hierarchy for 'localhost\SQLEXPRESS - sama-spac3(samw)'. The right pane shows a query result for the 'sama-spac3..Destination' table. The query is 'SELECT \* FROM sama-spac3..Destination'. The result set contains 22 rows of data, including columns for student ID, name, supervisor name, address, age, department ID, supervisor ID, full name, load date, and a copy of the student age.

st_id	st_name	st_ename	st_address	st_age	dept_id	st_super	FullName	LoadDate	Copy of st_age
100	MARIAM	HOSSAM	Tanta	25	10	5	Mariam Hossam	2026-02-11 00:25	25
63	NOUR	ADEL	Mansoura	25	10	4	NOUR Adel	2026-02-11 00:25	25
15	AVA	MOSTAFA	Cairo	25	10	1	Aya mostafa	2026-02-11 00:25	25
87	LINA	SAMIR	Giza	25	10	3	Lina samir	2026-02-11 00:25	25
39	MARIAM	HOSSAM	Tanta	25	10	5	Mariam Hossam	2026-02-11 00:25	25
183	NOUR	ADEL	Mansoura	25	10	4	NOUR Adel	2026-02-11 00:25	25
111	SARA	ALI	Alexandria	25	10	2	Sara ALI	2026-02-11 00:25	25
135	AVA	MOSTAFA	Cairo	25	10	1	Aya mostafa	2026-02-11 00:25	25
102	MOHAMED	IBRAHIM	Giza	24	10	3	MOHAMED Ibra	2026-02-11 00:24	24
30	AHMED	HASSAN	Cairo	24	10	1	ahmed hassan	2026-02-11 00:24	24
198	KARIM	NABIL	Mansoura	24	10	4	karim NABIL	2026-02-11 00:24	24
150	AHMED	HASSAN	Cairo	24	10	1	ahmed hassan	2026-02-11 00:24	24
54	OMAR	KHALED	Tanta	24	10	5	omar KHALED	2026-02-11 00:24	24
174	OMAR	KHALED	Tanta	24	10	5	omar KHALED	2026-02-11 00:24	24
6	YOUSSEF	FATHY	Alexandria	24	10	2	youssef fathy	2026-02-11 00:24	24
126	YOUSSEF	FATHY	Alexandria	24	10	2	youssef fathy	2026-02-11 00:24	24
78	KARIM	NABIL	Mansoura	24	10	4	karim NABIL	2026-02-11 00:24	24
69	MARIAM	HOSSAM	Tanta	23	10	5	Mariam Hossam	2026-02-11 00:23	23
141	SARA	ALI	Alexandria	23	10	2	Sara ALI	2026-02-11 00:23	23
45	AVA	MOSTAFA	Cairo	23	10	1	Aya mostafa	2026-02-11 00:23	23
165	AVA	MOSTAFA	Cairo	23	10	1	Aya mostafa	2026-02-11 00:23	23
93	NOUR	ADEL	Mansoura	23	10	4	NOUR Adel	2026-02-11 00:23	23
21	SARA	ALI	Alexandria	23	10	2	Sara ALI	2026-02-11 00:23	23
117	LINA	SAMIR	Giza	23	10	3	Lina samir	2026-02-11 00:23	23
189	MARIAM	HOSSAM	Tanta	23	10	5	Mariam Hossam	2026-02-11 00:23	23
60	AHMED	HASSAN	Cairo	22	10	1	ahmed hassan	2026-02-11 00:22	22

