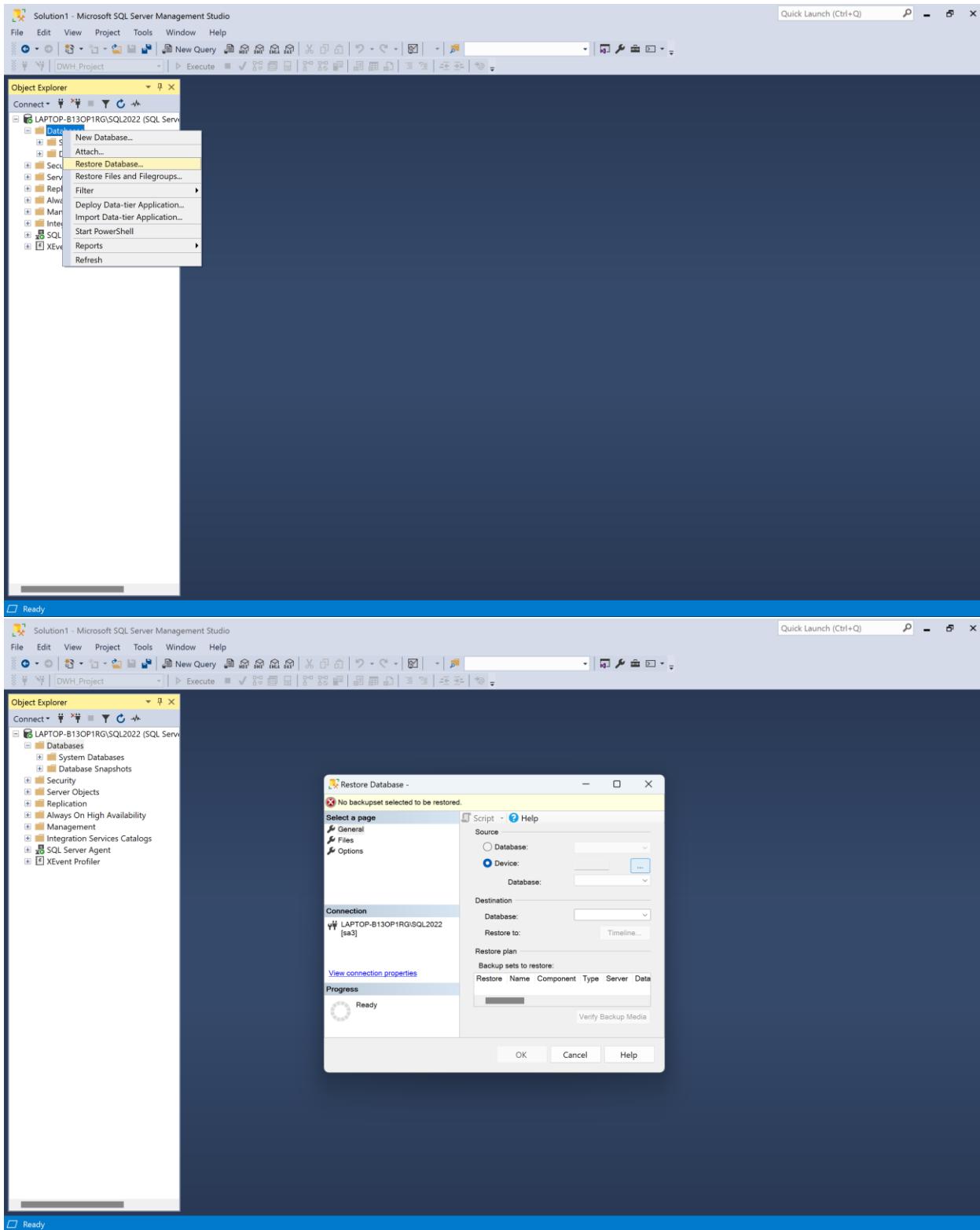
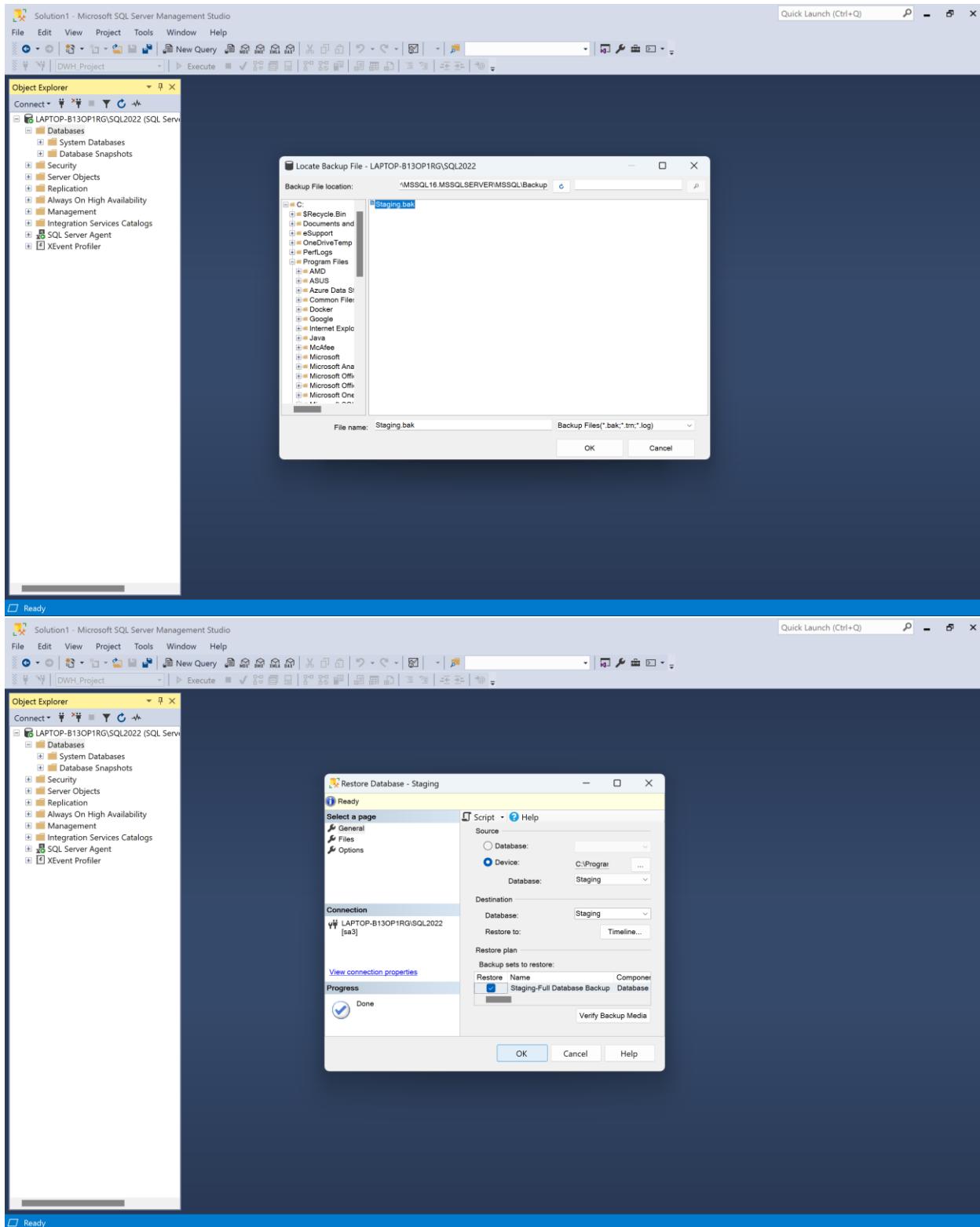


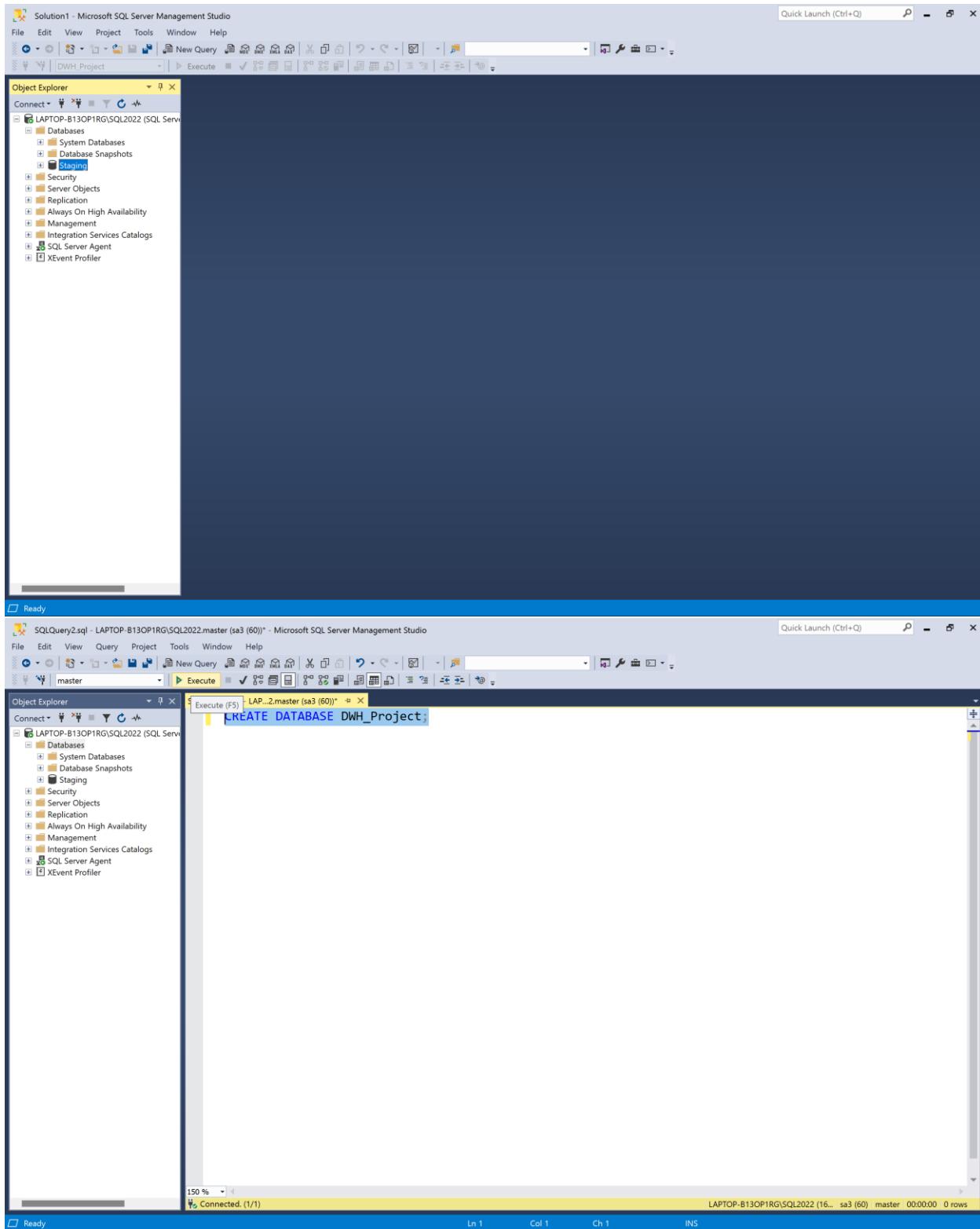
# Screenshot Hasil Pengerjaan Final Task



# Screenshot Hasil Pengerjaan Final Task



# Screenshot Hasil Pengerjaan Final Task



# Screenshot Hasil Pengerjaan Final Task

The screenshot shows two instances of Microsoft SQL Server Management Studio (SSMS) running side-by-side. Both instances are connected to the same database, 'LAPTOP-B13OP1RG\SQL2022'.

**Top Window (Screenshot 1):**

- Object Explorer:** Shows the database structure under 'LAPTOP-B13OP1RG\SQL2022 (SQL Server)' > 'Databases'. The 'DWH\_Project' database is listed.
- SQL Query Editor:** Contains the T-SQL command: `CREATE DATABASE DWH_Project;`
- Messages Panel:** Displays the output:
  - Commands completed successfully.
  - Completion time: 2023-12-29T13:26:22.4765130+07:00
- Status Bar:** Shows 'LAPTOP-B13OP1RG\SQL2022 (16... sa3 (60) master 00:00:00 0 rows'

**Bottom Window (Screenshot 2):**

- Object Explorer:** Shows the database structure under 'LAPTOP-B13OP1RG\SQL2022' > 'Database'. A context menu is open over the 'DWH\_Project' database, with the 'Refresh' option highlighted.
- SQL Query Editor:** Contains the T-SQL command: `CREATE DATABASE DWH_Project;`
- Messages Panel:** Displays the output:
  - Commands completed successfully.
  - Completion time: 2023-12-29T13:26:22.4765130+07:00
- Status Bar:** Shows 'LAPTOP-B13OP1RG\SQL2022 (16... sa3 (60) master 00:00:00 0 rows'

# Screenshot Hasil Pengerjaan Final Task

The screenshot displays two windows of Microsoft SQL Server Management Studio (SSMS) showing the execution of database creation scripts.

**Top Window:**

- Query Editor: SQLQuery2.sql - LAPTOP-B13OP1RG\SQL2022.master (sa3 (60))\*
- Text:

```
CREATE DATABASE DWH_Project;
```
- Messages pane: Commands completed successfully.  
Completion time: 2023-12-29T13:26:22.4765130+07:00

**Bottom Window:**

- Query Editor: SQLQuery2.sql - LAP\_2.master (sa3 (60))\*
- Text:

```
CREATE DATABASE DWH_Project;
```

```
CREATE TABLE dbo.DimCustomer (
    CustomerID INT NOT NULL,
    FirstName VARCHAR(50) NOT NULL,
    LastName VARCHAR(50) NOT NULL,
    Age INT NOT NULL,
    Gender VARCHAR(50) NOT NULL,
    City VARCHAR(50) NOT NULL,
    NoHp VARCHAR(50) NOT NULL,
    CONSTRAINT PK_Customer PRIMARY KEY (CustomerID)
```
- Messages pane: Commands completed successfully.  
Completion time: 2023-12-29T13:26:22.4765130+07:00

# Screenshot Hasil Pengerjaan Final Task

The image displays two windows of Microsoft SQL Server Management Studio (SSMS) showing the results of a final task.

**Top Window:**

- Query: SQLQuery2.sql - LAPTOP-B13OP1RG\SQL2022.DWH\_Project (sa3 (60)) - Microsoft SQL Server Management Studio
- Object Explorer shows the DWH\_Project database structure.
- Script pane contains the following SQL code:

```
Age INT NOT NULL,
Gender VARCHAR(50) NOT NULL,
City VARCHAR(50) NOT NULL,
NoHp VARCHAR(50) NOT NULL,
CONSTRAINT PK_Customer PRIMARY KEY (CustomerID)

CREATE TABLE dbo.DimProduct (
    ProductID INT NOT NULL,
    ProductName VARCHAR(255) NOT NULL,
    ProductCategory VARCHAR(255) NOT NULL,
    ProductUnitPrice INT NULL
    CONSTRAINT PK_Product PRIMARY KEY (ProductID)
```

Execution results:  
Commands completed successfully.  
Completion time: 2023-12-29T13:40:35.5562508+07:00

**Bottom Window:**

- Query: SQLQuery2.sql - LAPTOP-B13OP1RG\SQL2022.DWH\_Project (sa3 (60)) - Microsoft SQL Server Management Studio
- Object Explorer shows the DWH\_Project database structure.
- Script pane contains the following SQL code:

```
ProductID INT NOT NULL,
ProductName VARCHAR(255) NOT NULL,
ProductCategory VARCHAR(255) NOT NULL,
ProductUnitPrice INT NULL
CONSTRAINT PK_Product PRIMARY KEY (ProductID)

CREATE TABLE dbo.DimStatusOrder (
    StatusID INT NOT NULL,
    StatusOrder VARCHAR(50) NOT NULL,
    StatusOrderDesc VARCHAR(50) NOT NULL,
    CONSTRAINT PK_StatusOrder PRIMARY KEY (StatusID)
```

Execution results:  
Commands completed successfully.  
Completion time: 2023-12-29T13:43:51.1670939+07:00

# Screenshot Hasil Pengerjaan Final Task

The screenshot displays two windows from Microsoft SQL Server Management Studio (SSMS) and the SQL Server Configuration Manager.

**Microsoft SQL Server Management Studio (Top Window):**

- Object Explorer:** Shows the database structure for "DWH\_Project".
- SQL Query Editor:** Contains the following SQL code:

```
CREATE TABLE dbo.FactSalesOrder (
    OrderID INT NOT NULL PRIMARY KEY (OrderID),
    CustomerID INT NOT NULL FOREIGN KEY (CustomerID) REFERENCES dbo.DimCustomer(CustomerID),
    ProductID INT NOT NULL FOREIGN KEY (ProductID) REFERENCES dbo.DimProduct(ProductID),
    Quantity INT NOT NULL,
    Amount INT NOT NULL,
    StatusID INT NOT NULL FOREIGN KEY (StatusID) REFERENCES dbo.DimStatusOrder(StatusID),
    OrderDate DATE NOT NULL)
```
- Messages:** Displays the message "Commands completed successfully." and the completion time: "Completion time: 2023-12-29T13:52:57.7993637+07:00".

**SQL Server Configuration Manager (Bottom Window):**

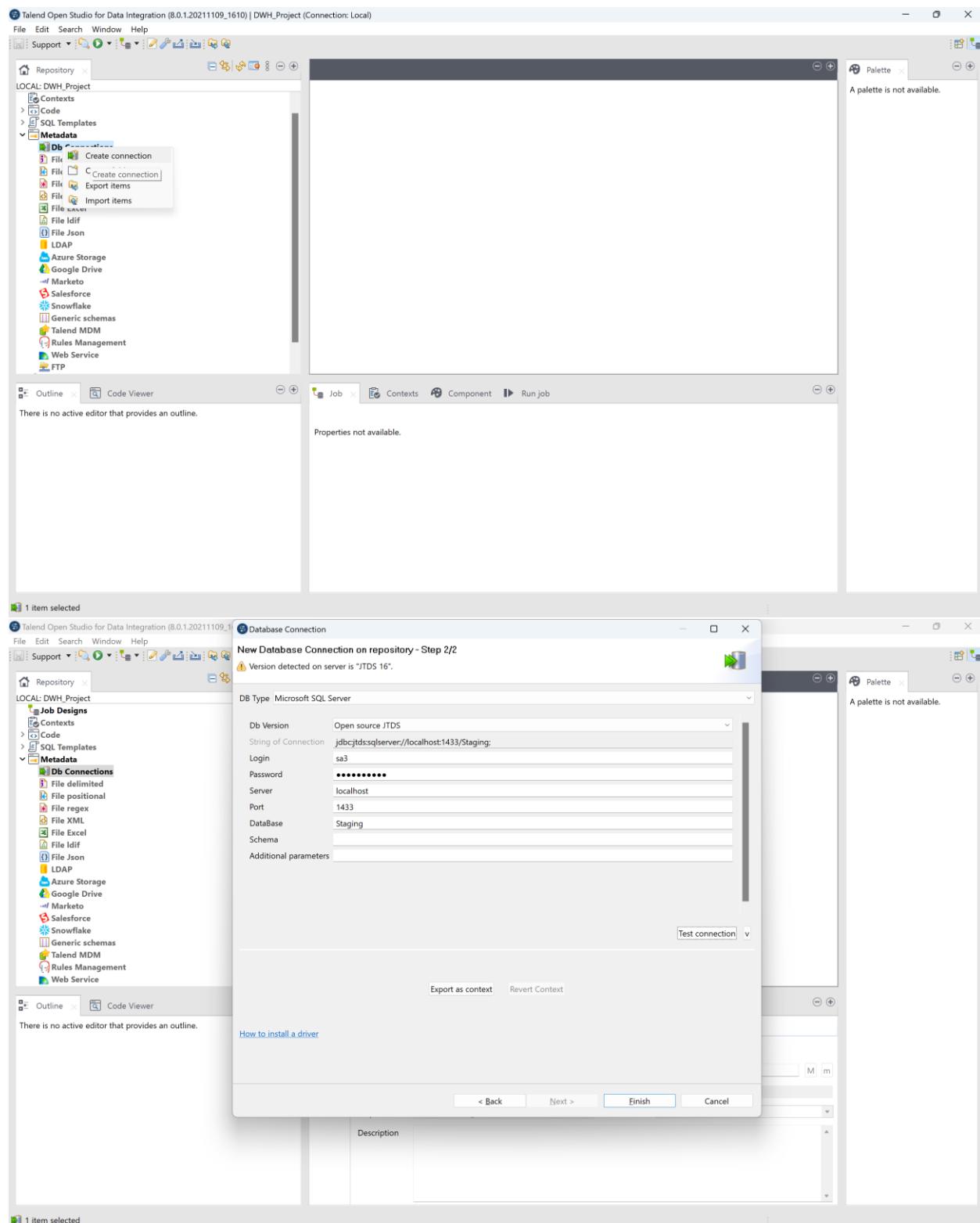
- Protocol List:** Shows the status of various protocols:

Protocol Name	Status
Shared Memory	Enabled
Named Pipes	Disabled
TCP/IP	Enabled
- TCP/IP Properties Dialog:** A detailed view of the TCP/IP protocol settings:

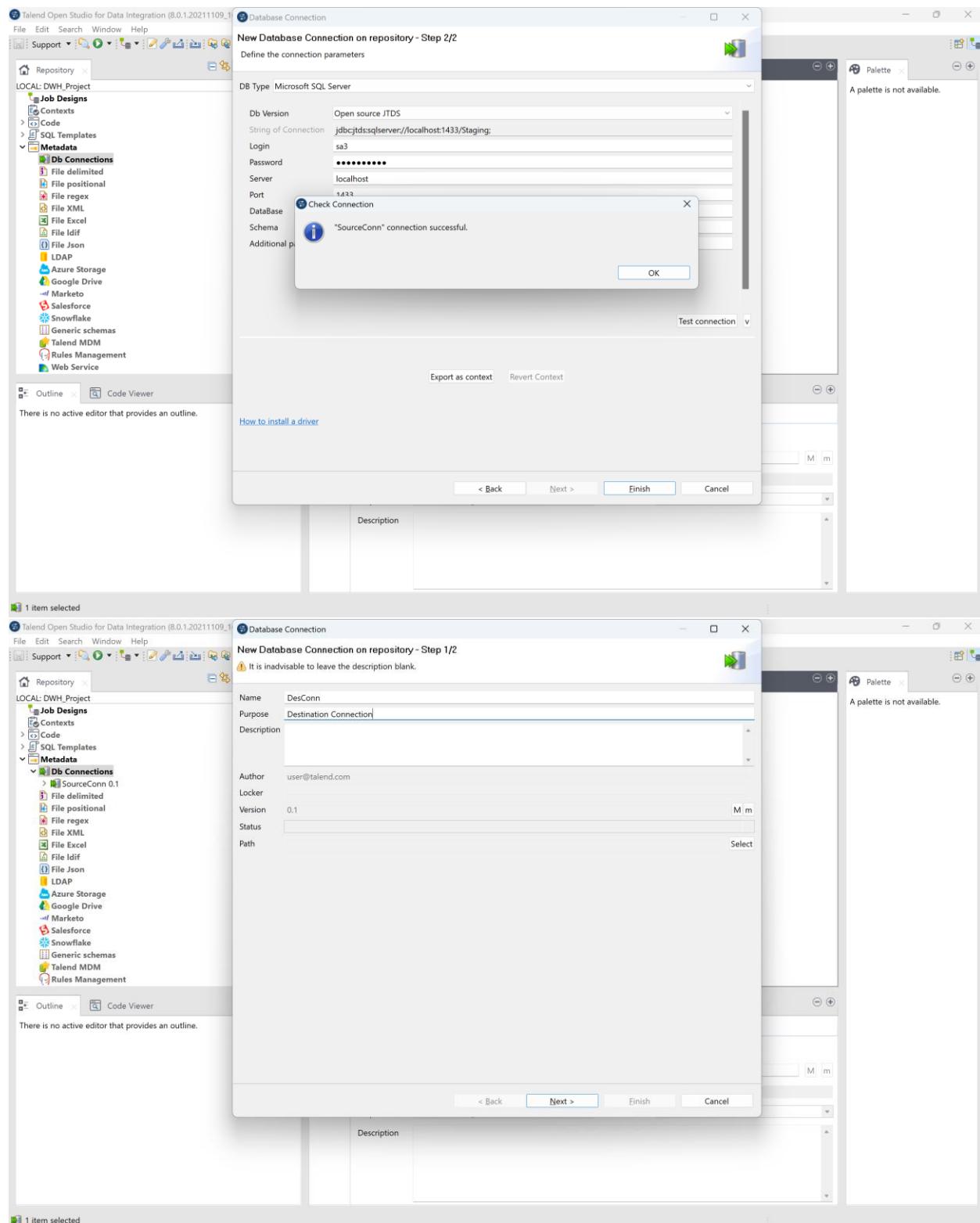
IP Addresses	
Enabled	No
IP Address	fe80:a598:95c9:92ba:9158%7
TCP Dynamic Ports	0
TCP Port	1433
IPv4	
Active	Yes
Enabled	No
IP Address	192.168.1.13
TCP Dynamic Ports	0
TCP Port	1433
IPv6	
Active	Yes
Enabled	No
IP Address	fe80:5436:6c5:d76dc59%14
TCP Dynamic Ports	0
TCP Port	1433
IPAll	
TCP Dynamic Ports	60998
TCP Port	1433

The "Active" section indicates which IP address is active.

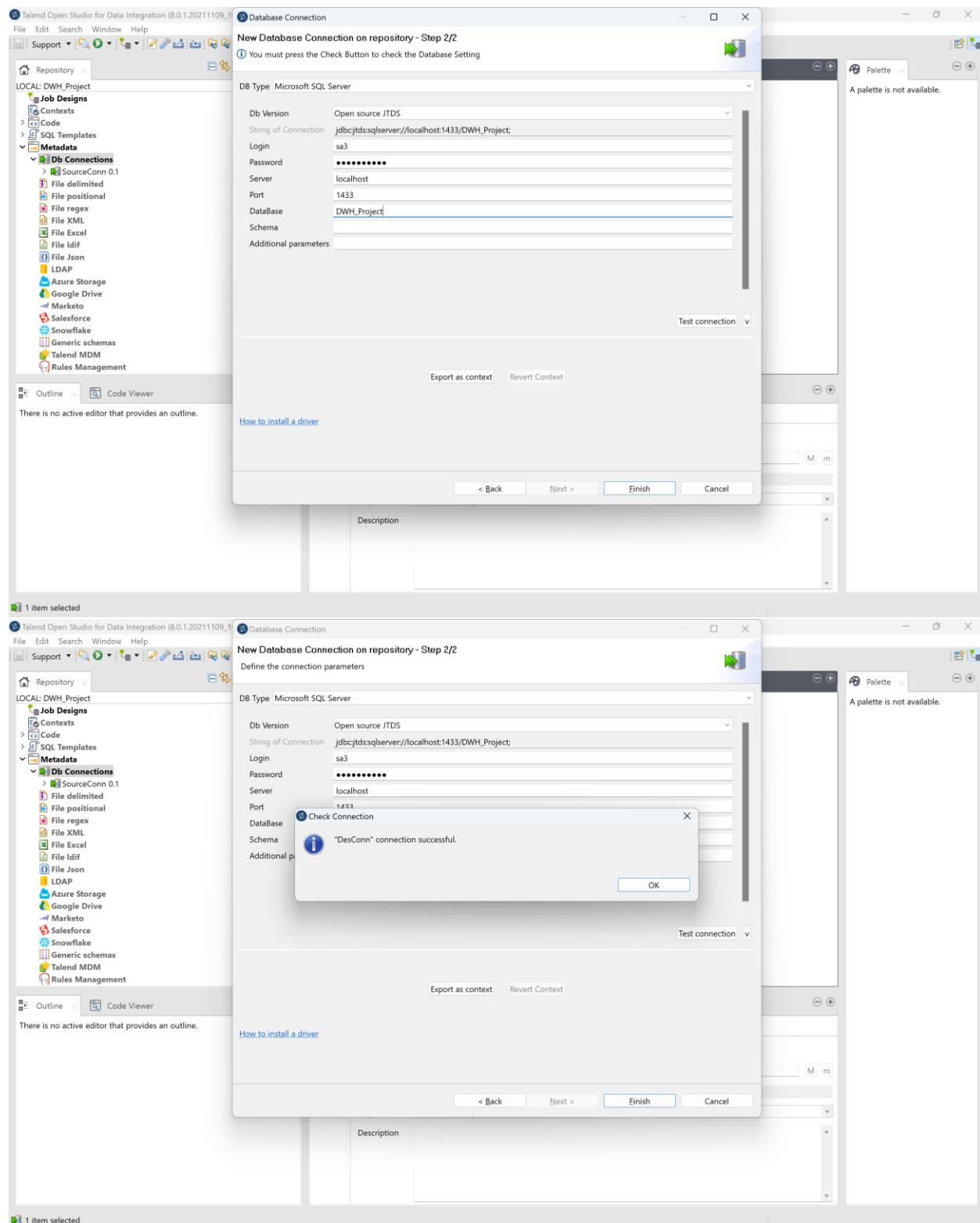
# Screenshot Hasil Pengerjaan Final Task



# Screenshot Hasil Pengerojan Final Task



# Screenshot Hasil Pengerjaan Final Task



# Screenshot Hasil Pengerjaan Final Task

Talend Open Studio for Data Integration (8.0.1.20211109\_1610) | DWH\_Project (Connection: Local)

File Edit Search Window Help

Support ▾

Repository

Job Designs

Contexts

Code

SQL Templates

Metadata

Db Connections

- DesConn 0.1
- SourceConn 0.1

File delimiter

File position

File regex

File XML

File Excel

File idf

File Json

LDAP

Azure Storage

Google Drive

Marketo

Salesforce

Snowflake

Generic schemas

Talend MDM

Outline

Code Viewer

Db Connections(SourceConn 0.1)

Contexts Component Run job

SourceConn 0.1

Main	Name	SourceConn
Version	Author	user@talend.com
Creation	Modification	12/29/23, 2:51PM
Purpose	Status	Connection to source
Description		

1 item selected

Talend Open Studio for Data Integration (8.0.1.20211109\_1610)

File Edit Search Window Help

Support ▾

Repository

Job Designs

Contexts

Code

SQL Templates

Metadata

Db Connections

- DesConn 0.1
- SourceConn 0.1

Queries

Synonym schemas

Table schemas

View schemas

File delimited

File positional

File regex

File XML

File Excel

File idf

File Json

LDAP

Azure Storage

Google Drive

Marketo

Outline

Code Viewer

Schema

Filter for the Table.

Select Filter Conditions

Use the Name Filter  Use the Sql Filter

Select Types

TABLE  VIEW  SYNONYM

Set the Name Filter:

Set the Sql Filter:

SELECT TNAME FROM TAB WHERE TNAME LIKE '%BAL%'

New... Edit... Remove...

< Back Next > Finish Cancel

Creation 12/29/23, 2:51PM Modification 12/29/23, 2:51PM

Purpose Connection to source Status

Description

Retrieve Schema

# Screenshot Hasil Pengerojan Final Task

The screenshot displays two instances of the Talend Open Studio for Data Integration interface, showing the creation of a new schema and its detailed configuration.

**Top Window: New Schema in connection "SourceConn"**

This window shows the creation of a new schema named "dbo". The schema contains several tables and views:

Name	Type	Column number	Creation status
customer	TABLE	7	Success
product	TABLE	4	Success
sales_order	TABLE	7	Success
status_order	TABLE	3	Success
sysdiagrams	TABLE		
guest	SCHEMA		
INFORMATION_SCHEMA	SCHEMA		

**Bottom Window: New Schema in connection "SourceConn"**

This window shows the configuration of a schema named "product". The schema is based on the "product" table. The table structure is as follows:

Column	Db Column	Key	DB Type	Type	Nul...	Date Pate...	Length	Preci...	Def...	Com...
product_id	product_id		INT	int			10	0		
product_name	product_name		VARCHAR	String			255	0		
product_category	product_category		VARCHAR	String			255	0		
product_unit	product_unit		INT	Integ...			10	0		

Both windows show the creation date as 12/29/23, 2:51PM, and the modification date as 12/29/23, 2:51PM. The purpose is listed as "Connection to source".

# Screenshot Hasil Pengajaran Final Task

The screenshot displays two windows of Talend Open Studio for Data Integration (8.0.1.20211109\_1610) running on a Windows operating system.

**Top Window: New Schema in connection "DesConn"**

This window shows the "Schema" creation dialog for a connection named "DesConn". The "Metadata" section is selected in the left sidebar. The main area lists existing schemas and tables:

Name	Type	Column number	Creation status
db.accessadmin	SCHEMA		
db.backupoperator	SCHEMA		
db.datareader	SCHEMA		
db.datawriter	SCHEMA		
db.ddladmin	SCHEMA		
db.denydatareader	SCHEMA		
db.denydatawriter	SCHEMA		
db.owner	SCHEMA		
db.securityadmin	SCHEMA		
dbo	SCHEMA		
DimCustomer	TABLE	7	Success
DimProduct	TABLE	4	Success
DimStatusOrder	TABLE	3	Success
FactSalesOrder	TABLE	7	Success
guest	SCHEMA		
INFORMATION_SCHEMA	SCHEMA		
sys	SCHEMA		

Buttons at the bottom include "Select All", "Select None", and "Check Connection".

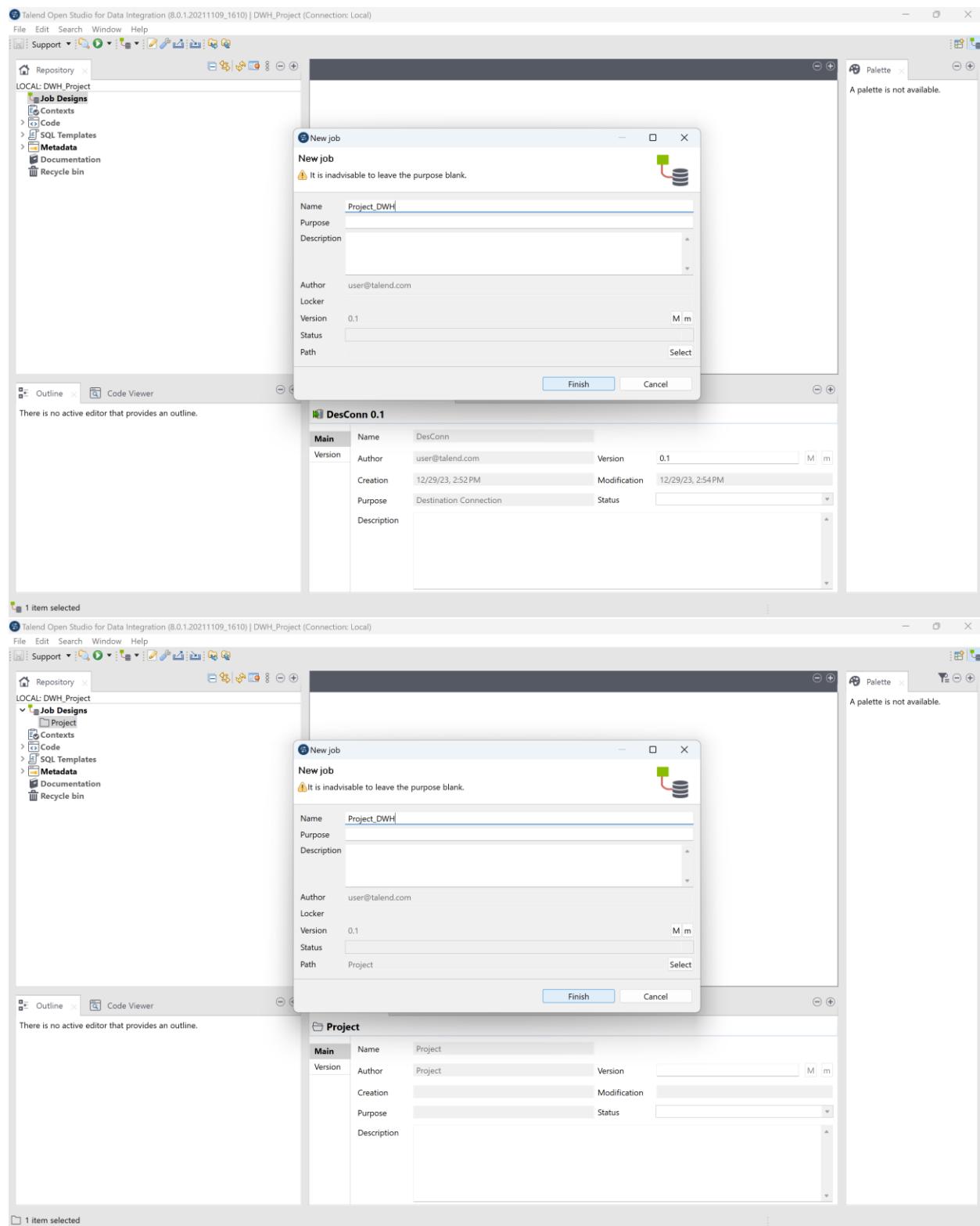
**Bottom Window: Db Connections(DesConn 0.1)**

This window shows the configuration of a database connection named "DesConn 0.1". The "Main" tab is selected:

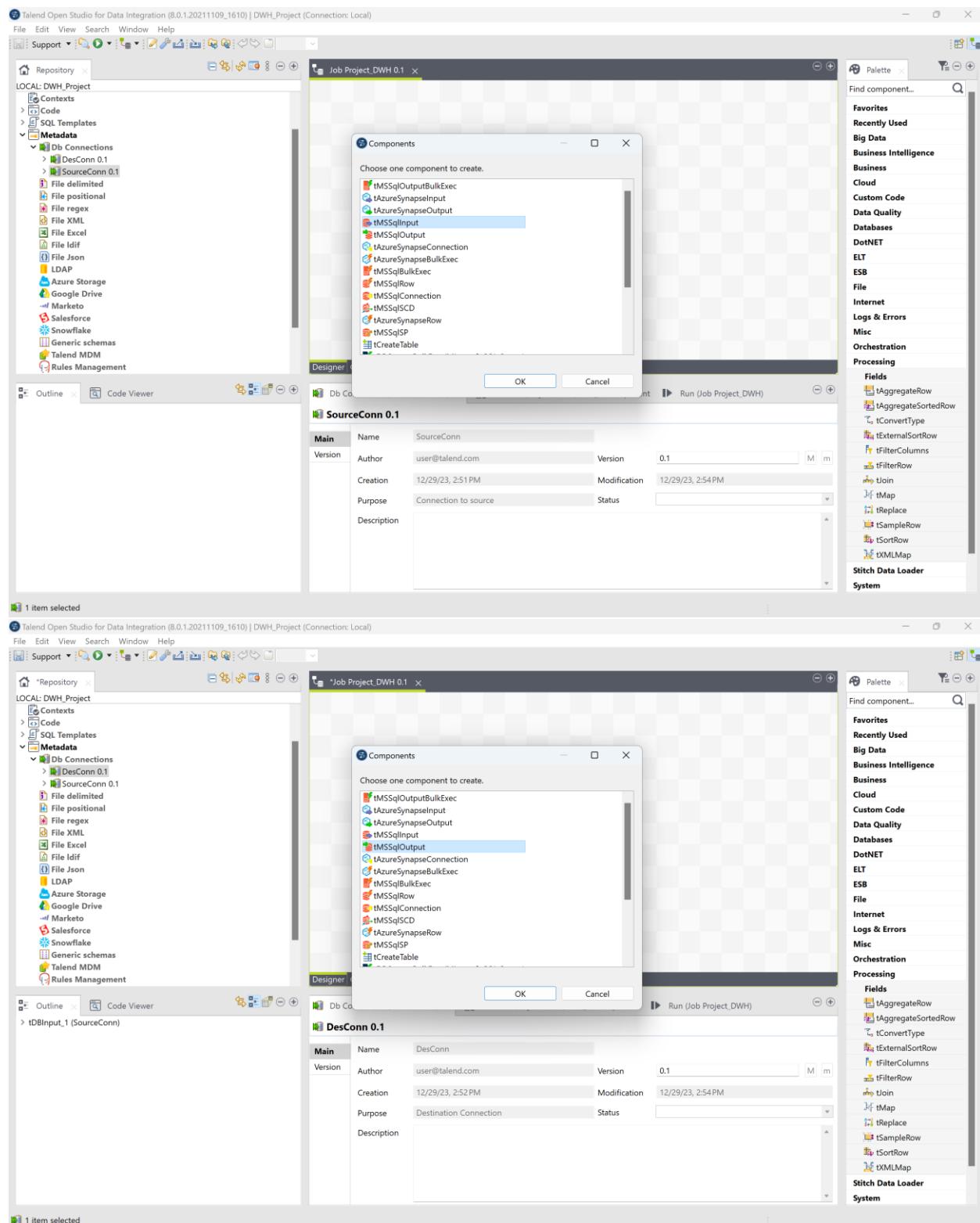
	Name	Version	Author	Version	Modification
Main	DesConn	0.1	user@talend.com	0.1	12/29/23, 2:54PM
Version					
Creation					
Purpose	Destination Connection				
Description					

Buttons at the top include "Create job", "Export items", "Import items", and "Run job".

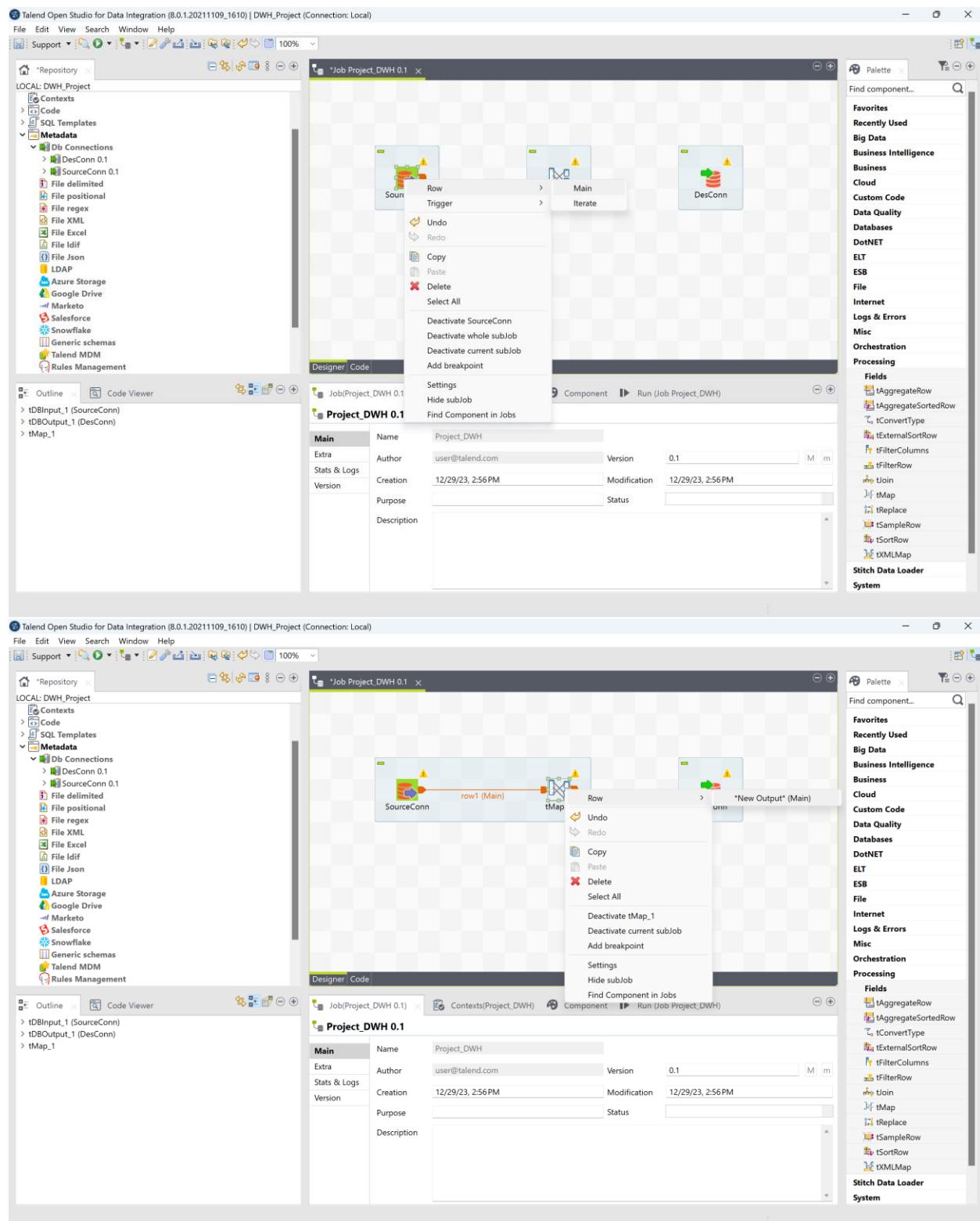
# Screenshot Hasil Pengerojan Final Task



# Screenshot Hasil Pengerjaan Final Task



# Screenshot Hasil Pengerjaan Final Task



# Screenshot Hasil Pengerjaan Final Task

The screenshot displays two separate Talend jobs within the same project context.

**Top Job:** The job is titled "Job Project\_DWH.0.1". It shows a component selection dialog with "tMSqlOutput" selected. The component details for "customer.0.1" are displayed, including its main properties: Name (customer), Version (0.1), Author (user@talend.com), Creation (12/29/23, 2:51PM), Modification (12/29/23, 2:54PM), Purpose (Connection to source), and Status. The component is described as "Connection to source".

**Bottom Job:** The job is also titled "Job Project\_DWH.0.1". It shows a component selection dialog with "tMSqlOutput" selected again. The component details for "DimCustomer.0.1" are displayed, including its main properties: Name (DimCustomer), Version (0.1), Author (user@talend.com), Creation (12/29/23, 2:52PM), Modification (12/29/23, 2:54PM), Purpose (Destination Connection), and Status. The component is described as "Destination Connection".

The left sidebar shows the repository structure for the "DWH\_Project" connection, including contexts, code, SQL templates, and metadata (Db Connections, Table schemas, View schemas). The right sidebar is a palette for selecting components, with "Favorites" expanded to show categories like Business Intelligence, Business, Cloud, etc., and a list of available components including tMSqlOutput, AzureSynapseInput, AzureSynapseOutput, and others.

# Screenshot Hasil Pengerjaan Final Task

Talend Open Studio for Data Integration (8.0.1.20211109\_1610) | DWH\_Project (Connection: Local)

File Edit View Search Window Help

Support Find component... Favorites Recently Used Big Data Business Intelligence Business Cloud Custom Code Data Quality Databases DotNET ELT ESB File Internet Logs & Errors Misc Orchestration Processing Fields tAggregateRow tAggregateSortedRow tConvertType tExternalSortRow tFilterColumns tFilterRow tInIn tMap tReplace tSampleRow tSortRow tXMLMap Stitch Data Loader System

Repository \*Job Project\_DWH 0.1

LOCAL: DWH\_Project

Contexts Code SQL Templates Metadata

Db Connections DesConn 0.1

- Queries
- Synonym schemas
- Table schemas
  - DimCustomer
  - DimProduct
  - DimStatusOrder
  - FactSalesOrder
  - View schemas
- SourceConn 0.1
  - Queries
  - Synonym schemas
  - Table schemas
    - customer
    - product
    - sales\_order
    - status\_order
    - View schemas

Designer Code

Outline Code Viewer

Job(Project\_DWH 0.1)

Project\_DWH 0.1

Main Name user@talend.com Version 0.1

Extra Author Creation 12/29/23, 2:56 PM Modification 12/29/23, 2:56 PM

Stats & Logs Purpose

Version Description

Component Run (Job Project\_DWH)

Row Trigger Main Iterate "DimCustomer"

Undo Redo Copy Paste Delete Select All Deactivate "customer" Deactivate whole subjob Deactivate current subjob Add breakpoint Settings Hide subjob Find Component in Jobs

Talend Open Studio for Data Integration - tMap - tMap\_1

row1

Column

customer\_id  
first\_name  
last\_name  
age  
gender  
city  
no\_hp

Var

output1

Expression

Column

CustomerID  
FirstName  
LastName  
Age  
Gender  
City  
NoHp

Schema editor Expression editor

row1

Column	Key	Type	Nu...	Date Pattern (Ctrl...	Length	Precision	Default	Comment
customer_id	<input checked="" type="checkbox"/>	int	<input type="checkbox"/>		10	0		
first_name	<input type="checkbox"/>	String	<input type="checkbox"/>		50	0		
last_name	<input type="checkbox"/>	String	<input type="checkbox"/>		50	0		
age	<input type="checkbox"/>	int	<input type="checkbox"/>		10	0		
gender	<input type="checkbox"/>	String	<input type="checkbox"/>		50	0		
city	<input type="checkbox"/>	String	<input type="checkbox"/>		50	0		
no_hp	<input type="checkbox"/>	String	<input type="checkbox"/>		50	0		

output1

Column	Key	Type	Nu...	Date Pattern (Ctrl...	Length	Precision	Default	Comment
CustomerID	<input checked="" type="checkbox"/>	int	<input type="checkbox"/>		10	0		
FirstName	<input type="checkbox"/>	String	<input type="checkbox"/>		50	0		
LastName	<input type="checkbox"/>	String	<input type="checkbox"/>		50	0		
Age	<input type="checkbox"/>	int	<input type="checkbox"/>		10	0		
Gender	<input type="checkbox"/>	String	<input type="checkbox"/>		50	0		
City	<input type="checkbox"/>	String	<input type="checkbox"/>		50	0		
NoHp	<input type="checkbox"/>	String	<input type="checkbox"/>		50	0		

Apply Ok Cancel

# Screenshot Hasil Pengerjaan Final Task

**Talend Open Studio for Data Integration - tMap - tMap\_1**

The screenshot shows two rows being mapped:

- row1:** Contains columns: customer\_id, first\_name, last\_name, age, gender, city, no\_hp.
- Var:** Contains two variables: var1 (Expression: StringHandling.UPCASE(first\_name), Type: String) and var2 (Expression: StringHandling.UPCASE(last\_name), Type: String).
- output1:** Contains columns: CustomerID, FirstName, LastName, CustomerName (highlighted in yellow), Age, Gender, City, NoHp.

**Schema editor / Expression editor:**

Column	Key	Type	Nul...	Date Pattern (Ctrl...)	Length	Precision	Default	Comment
customer_id	<input checked="" type="checkbox"/>	int	<input checked="" type="checkbox"/>		10	0		
first_name	<input type="checkbox"/>	String	<input type="checkbox"/>		50	0		
last_name	<input type="checkbox"/>	String	<input type="checkbox"/>		50	0		
age	<input type="checkbox"/>	int	<input type="checkbox"/>		10	0		
gender	<input type="checkbox"/>	String	<input type="checkbox"/>		50	0		
city	<input type="checkbox"/>	String	<input type="checkbox"/>		50	0		
no_hp	<input type="checkbox"/>	String	<input type="checkbox"/>		50	0		

Column	Key	Type	Nul...	Date Pattern (Ctrl...)	Length	Precision	Default	Comment
CustomerID	<input checked="" type="checkbox"/>	int	<input type="checkbox"/>		10	0		
FirstName	<input type="checkbox"/>	String	<input type="checkbox"/>		50	0		
LastName	<input type="checkbox"/>	String	<input type="checkbox"/>		50	0		
CustomerName	<input type="checkbox"/>	String	<input type="checkbox"/>		100	0		
Age	<input type="checkbox"/>	int	<input type="checkbox"/>		10	0		
Gender	<input type="checkbox"/>	String	<input type="checkbox"/>		50	0		
City	<input type="checkbox"/>	String	<input type="checkbox"/>		50	0		
NoHp	<input type="checkbox"/>	String	<input type="checkbox"/>		50	0		

**Talend Open Studio for Data Integration - tMap - tMap\_2**

The screenshot shows two rows being mapped:

- row2:** Contains columns: product\_id, product\_name, product\_category, product\_unit\_price.
- Var:** Contains no variables.
- output2:** Contains columns: ProductID, ProductName, ProductCategory, ProductUnitPrice (highlighted in yellow).

**Schema editor / Expression editor:**

Column	Key	Type	Nul...	Date Pattern (Ctrl...)	Length	Precision	Default	Comment
product_id	<input checked="" type="checkbox"/>	int	<input type="checkbox"/>		10	0		
product_name	<input type="checkbox"/>	String	<input type="checkbox"/>		255	0		
product_category	<input type="checkbox"/>	String	<input type="checkbox"/>		255	0		
product_unit_price	<input type="checkbox"/>	Integer	<input checked="" type="checkbox"/>		10	0		

Column	Key	Type	Nul...	Date Pattern (Ctrl...)	Length	Precision	Default	Comment
ProductID	<input checked="" type="checkbox"/>	int	<input type="checkbox"/>		10	0		
ProductName	<input type="checkbox"/>	String	<input type="checkbox"/>		255	0		
ProductCategory	<input type="checkbox"/>	String	<input type="checkbox"/>		255	0		
ProductUnitPrice	<input type="checkbox"/>	Integer	<input checked="" type="checkbox"/>		10	0		

# Screenshot Hasil Pengerjaan Final Task

**Talend Open Studio for Data Integration - tMap - tMap\_3**

Column	Key	Type	Nul...	Date Pattern (Ctrl...)	Length	Precision	Default	Comment
status_id	<input checked="" type="checkbox"/>	int	<input type="checkbox"/>		10	0		
status_order	<input type="checkbox"/>	String	<input type="checkbox"/>		50	0		
status_order_desc	<input type="checkbox"/>	String	<input type="checkbox"/>		50	0		

Column	Key	Type	Nul...	Date Pattern (Ctrl...)	Length	Precision	Default	Comment
StatusID	<input checked="" type="checkbox"/>	int	<input type="checkbox"/>		10	0		
StatusOrder	<input type="checkbox"/>	String	<input type="checkbox"/>		50	0		
StatusOrderDesc	<input type="checkbox"/>	String	<input type="checkbox"/>		50	0		

**Talend Open Studio for Data Integration - tMap - tMap\_4**

Column	Key	Type	Nul...	Date Pattern (Ctrl...)	Length	Precision	Default	Comment
order_id	<input checked="" type="checkbox"/>	int	<input type="checkbox"/>		10	0		
customer_id	<input type="checkbox"/>	int	<input type="checkbox"/>		10	0		
product_id	<input type="checkbox"/>	int	<input type="checkbox"/>		10	0		
quantity	<input type="checkbox"/>	int	<input type="checkbox"/>		10	0		
amount	<input type="checkbox"/>	int	<input type="checkbox"/>		10	0		
status_id	<input type="checkbox"/>	int	<input type="checkbox"/>		10	0		
order_date	<input type="checkbox"/>	Date	<input type="checkbox"/>	"dd-MM-yyyy"	10	0		

Column	Key	Type	Nul...	Date Pattern (Ctrl...)	Length	Precision	Default	Comment
OrderID	<input checked="" type="checkbox"/>	int	<input type="checkbox"/>		10	0		
CustomerID	<input type="checkbox"/>	int	<input type="checkbox"/>		10	0		
ProductID	<input type="checkbox"/>	int	<input type="checkbox"/>		10	0		
Quantity	<input type="checkbox"/>	int	<input type="checkbox"/>		10	0		
Amount	<input type="checkbox"/>	int	<input type="checkbox"/>		10	0		
StatusID	<input type="checkbox"/>	int	<input type="checkbox"/>		10	0		
OrderDate	<input type="checkbox"/>	Date	<input type="checkbox"/>	"dd-MM-yyyy"	10	0		

# Screenshot Hasil Pengerjaan Final Task

Talend Open Studio for Data Integration (8.0.1.20211109\_1610) | DWH\_Project (Connection: Local)

File Edit View Search Window Help

Support ▾

Repository

LOCAL: DWH\_Project

- Contexts
- Code
- SQL Templates
- Metadata
  - Db Connections
    - DesConn 0.1
      - Queries
      - Synonym schemas
    - Table schemas
      - DimCustomer
      - DimProduct
      - DimStatusOrder
      - FactSalesOrder
      - View schemas
  - SourceConn 0.1
    - Queries
    - Synonym schemas
  - Table schemas
    - customer
    - product
    - sales\_order
    - status\_order
    - View schemas

Job Project\_DWH 0.1

\*customer\* tMap\_1 \*DimCustomer\*

\*product\* row2 (Main) tMap\_2 output2 (Main) \*DimProduct\*

\*status\_order\* row3 (Main) tMap\_3 output3 (Main) \*DimStatusOrder\*

\*sales\_order\* row4 (Main) tMap\_4 output4 (Main) \*FactSalesOrder\*

Designer Code

Outline Code Viewer

Job Project\_DWH

Basic Run Execution

- Run Kill Clear

Run the job

Default Name

Find component... Favorites Recently Used Big Data Business Intelligence Business Cloud Custom Code Data Quality Databases DotNET ELT ESB File Internet Logs & Errors Misc Orchestration Processing Fields

tAggregateRow tAggregateSortedRow tConvertType tExternalSortRow tFilterColumns tFilterRow tIn tMap tReplace tSampleRow tSortRow tXMLMap Stitch Data Loader System

Talend Open Studio for Data Integration - tMap - tMap\_1

row1

Column customer\_id first\_name last\_name age gender city no\_hp

Var

Expression Type N Variable

- StringHandling.UPCASE(row1.first\_na... String var1
- StringHandling.UPCASE(row1.last\_na... String var2

output1

Column CustomerID FirstName LastName CustomerName Age Gender City NoHp

Auto map!

Schema editor Expression editor

row1

Column	Key	Type	Nu...	Date Pattern (Ctrl...	Length	Precision	Default	Comment
customer_id	<input checked="" type="checkbox"/>	int	<input type="checkbox"/>		10	0		
first_name	<input type="checkbox"/>	String	<input type="checkbox"/>		50	0		
last_name	<input type="checkbox"/>	String	<input type="checkbox"/>		50	0		
age	<input type="checkbox"/>	int	<input type="checkbox"/>		10	0		
gender	<input type="checkbox"/>	String	<input type="checkbox"/>		50	0		
city	<input type="checkbox"/>	String	<input type="checkbox"/>		50	0		
no_hp	<input type="checkbox"/>	String	<input type="checkbox"/>		50	0		

output1

Column	Key	Type	Nu...	Date Pattern (Ctrl...	Length	Precision	Default	Comment
CustomerID	<input checked="" type="checkbox"/>	int	<input type="checkbox"/>		10	0		
FirstName	<input type="checkbox"/>	String	<input type="checkbox"/>		50	0		
LastName	<input type="checkbox"/>	String	<input type="checkbox"/>		50	0		
CustomerName	<input type="checkbox"/>	String	<input type="checkbox"/>		100	0		
Age	<input type="checkbox"/>	int	<input type="checkbox"/>		10	0		
Gender	<input type="checkbox"/>	String	<input type="checkbox"/>		50	0		
City	<input type="checkbox"/>	String	<input type="checkbox"/>		50	0		
NoHp	<input type="checkbox"/>	String	<input type="checkbox"/>		50	0		

Apply Ok Cancel

# Screenshot Hasil Pengerjaan Final Task

**Microsoft SQL Server Management Studio (SSMS) Screenshot:**

The SSMS interface shows a query window with the following T-SQL code:

```

ALTER TABLE dbo.DimCustomer
ADD CustomerName VARCHAR(100) NOT NULL

SELECT * FROM dbo.FactSalesOrder
  
```

The results pane displays 10 rows from the FactSalesOrder table:

OrderID	CustomerID	ProductID	Quantity	Amount	StatusID	OrderDate	
1	1301	1000	2	980000	2	2022-01-06	
2	1302	206	1005	1	1000000	4	2022-01-20
3	1303	201	1001	1	1200000	1	2022-02-02
4	1304	202	1002	2	300000	2	2022-02-04
5	1305	203	1003	3	600000	3	2022-03-28
6	1306	206	1006	1	900000	4	2022-03-15
7	1307	208	1009	1	250000	2	2022-03-09
8	1308	207	1007	2	600000	3	2022-04-28
9	1309	202	1010	1	380000	4	2022-04-22
10	1310	204	1004	2	240000	1	2022-04-25

Message bar: Query executed successfully.

**Talend Open Studio for Data Integration Screenshot:**

The Talend interface shows a job named "Job Project\_DWH 0.1" with three parallel ETL (Extract, Transform, Load) processes:

- Process 1 (Top):** Extracts from "customer" (8 rows in 0.02s, 363.64 rows/s) and loads into "DimCustomer" (8 rows in 0.34s, 23.39 rows/s).
- Process 2 (Middle):** Extracts from "product" (10 rows in 0.01s, 833.33 rows/s) and loads into "DimProduct" (10 rows in 0.03s, 370.37 rows/s).
- Process 3 (Bottom):** Extracts from "status\_order" (5 rows in 0.01s, 454.55 rows/s) and loads into "DimStatusOrder" (5 rows in 0.02s, 227.27 rows/s).

The "Job Project\_DWH 0.1" execution log shows the job started at 16:02 29/12/2023 and ended at 16:02 29/12/2023.

# Screenshot Hasil Pengerjaan Final Task

SQLQuery2.sql - LAPTOP-B13OP1RG\SQL2022.DWH\_Project (sa3 (60)) - Microsoft SQL Server Management Studio

File Edit View Query Project Tools Window Help

DWH\_Project Execute

Object Explorer

SQLQuery2.sql - LAP...\_Project (sa3 (60))

```
ProductID INT NOT NULL FOREIGN KEY (ProductID) REFERENCES dbo.DimProduct(ProductID),
Quantity INT NOT NULL,
Amount INT NOT NULL,
StatusID INT NOT NULL FOREIGN KEY (StatusID) REFERENCES dbo.DimStatusOrder(StatusID),
OrderDate DATE NOT NULL

)
ALTER TABLE dbo.DimCustomer
ADD CustomerName VARCHAR(100) NOT NULL

SELECT * FROM dbo.DimCustomer
```

Results Messages

CustomerID	FirstName	LastName	Age	Gender	City	Neighborhood	CustomerName
1	201	Santoso	45	Pria	Jakarta	087645485712	BUDI SANTOSO
2	202	Apong	35	Wanita	Bogor	089015465712	AJENG SRISH
3	203	bagus	20	Pria	Depok	087905465712	BAGUS PRAKOSO
4	204	Lia	31	Wanita	Bekasi	089945408712	UA RAHIMAWATI
5	205	Azmu	28	Pria	Jakarta	087689765712	AZMIU FATI
6	206	Riki	22	Pria	Depok	087645488907	RIFI MUHAMMAD
7	207	Bella	24	Wanita	Tangerang	087647665712	BELA ADRIJA
8	208	Rahma	18	Wanita	Bogor	087645431212	RAHMA AMELIA

Query executed successfully.

LAPTOP-B13OP1RG\SQL2022 (16... sa3 (60) DWH\_Project 00:00:00 8 rows

Ready

SQLQuery3.sql - LAPTOP-B13OP1RG\SQL2022.DWH\_Project (sa3 (57)) - Microsoft SQL Server Management Studio

File Edit View Query Project Tools Window Help

DWH\_Project Execute

Object Explorer

SQLQuery3.sql - LAP...\_Project (sa3 (57))

```
CREATE PROCEDURE dbo.summary_order_status @StatusID INT
AS
BEGIN
    SELECT OrderID, c.CustomerName, ProductName, Quantity, StatusOrder
    FROM dbo.FactSalesOrder f
    LEFT JOIN dbo.DimCustomer c ON c.CustomerID = f.CustomerID
    LEFT JOIN dbo.DimProduct p ON p.ProductID = f.ProductID
    LEFT JOIN dbo.DimStatusOrder s ON s.StatusID = f.StatusID
    WHERE f.StatusID = @StatusID;
END
```

EXEC dbo.summary\_order\_status @StatusID = 1

Results Messages

OrderID	CustomerName	ProductName	Quantity	StatusOrder
1	BUDI SANTOSO	Macbook Air 2020 13 inch	1	Awaiting Payment
2	LIA RAHIMAWATI	Kipas Angin Cosmos	2	Awaiting Payment

Query executed successfully.

LAPTOP-B13OP1RG\SQL2022 (16... sa3 (57) DWH\_Project 00:00:00 2 rows

Ready