

QUESTION #32:

I don't have time to finish the whole ETL process. But I give Write down the Whole process of selecting data, merging data and update tables in store procedure. And I include my sample queries and part of the result at bottom.

```
CREATE TABLE Dimension.Manufacture
(
    id int not null IDENTITY(1,1) PRIMARY KEY ,
    [Stock Item ID] int NOT NULL FOREIGN KEY REFERENCES [Dimension].[Stock
Item]([Stock Item Key]),
    [Country] NVARCHAR(max) NOT NULL
)
CREATE PROCEDURE ETL
--(@input )
AS
BEGIN
SELECT --wsc.PostalCityID
-- ,wso.CustomerID
--wsol.StockItemID,
-- ,
--      wso.OrderDate
-- ,wso.PickingCompletedWhen
-- ,wso.SalespersonPersonID
-- ,wso.PickedByPersonID
-- ,wso.OrderID
-- ,wso.BackorderOrderID
-- ,wsol.Description
-- ,wsol.PackageTypeID
-- ,wsol.Quantity
-- ,wsol.UnitPrice
-- ,wsol.TaxRate
-- ,[Total Excluding Tax]
-- ,wsil.TaxAmount
-- ,[Total Including Tax]
-- ,[Lineage Key]
-- ,wsc.PostalCityID
-- ,wso.CustomerID
-- ,wsol.StockItemID
-- ,wso.SalespersonPersonID
-- ,wso.PickedByPersonID
-- ,wso.LastEditedWhen into #temp
FROM [WideWorldImporters].[Sales].[Orders] WSO
JOIN [WideWorldImporters].[Sales].Customers WSC on wso.CustomerID=wsc.CustomerID
JOIN [WideWorldImporters].[Sales].OrderLines wsol on wso.OrderID=wsol.OrderID
JOIN [WideWorldImporters].[Sales].Invoices wsi on wsi.OrderID=wso.OrderID
JOIN [WideWorldImporters].[Sales].InvoiceLines wsil on
wsil.InvoiceID=wsi.InvoiceID

INSERT INTO Integration.Order_Staging(
    [Order Date Key]
    ,[Picked Date Key]
    ,[WWI Order ID]
    ,[WWI Backorder ID]
    ,[Description]
    ,[Package]
    ,[Quantity]
    ,[Unit Price]
    ,[Tax Rate]
    ,[Tax Amount]
    ,[WWI City ID]
```

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, [WWI Customer ID]
, [WWI Stock Item ID]
, [WWI Salesperson ID]
, [WWI Picker ID]
, [Last Modified When])
select* from #temp
--DELETE FROM Integration.Order_Staging
--select * from Integration.Order_Staging
--drop table #temp

```

	Key	Order Date Key	Picked Date Key	Salesperson Key	Picker Key	WWI Order ID	WWI Backorder ID	Description	Package	Quantity	Unit Price	Tax Rate	Total Excluding Tax	Tax Amount	T
1		2013-10-24	2013-10-24	NULL	NULL	15867	NULL	Superhero action jacket (Blue) XS	7	6	25.00	15.000	NULL	28.80	3
2		2013-10-24	2013-10-24	NULL	NULL	15867	NULL	Superhero action jacket (Blue) XS	7	6	25.00	15.000	NULL	15.60	3
3		2013-10-24	2013-10-24	NULL	NULL	15867	NULL	Superhero action jacket (Blue) XS	7	6	25.00	15.000	NULL	108.00	3
4		2013-10-24	2013-10-24	NULL	NULL	15867	NULL	Superhero action jacket (Blue) XS	7	6	25.00	15.000	NULL	44.28	3
5		2013-10-24	2013-10-24	NULL	NULL	15869	NULL	Furry animal socks (Pink) S	10	84	5.00	15.000	NULL	291.60	3
6		2013-10-24	2013-10-24	NULL	NULL	15869	NULL	Furry animal socks (Pink) S	10	84	5.00	15.000	NULL	1.95	3
7		2013-10-24	2013-10-24	NULL	NULL	15869	NULL	Furry animal socks (Pink) S	10	84	5.00	15.000	NULL	291.60	3
8		2013-10-24	2013-10-24	NULL	NULL	15869	NULL	Furry animal socks (Pink) S	10	84	5.00	15.000	NULL	3.90	3

```

MERGE [Dimension].[Stock Item] AS TARGET
USING Integration.Order_Staging AS SOURCE
ON (TARGET.[WWI Stock Item ID] = SOURCE.[WWI Stock Item ID])
--When records are matched, update the records if there is any change
WHEN MATCHED
THEN UPDATE SET
TARGET.[WWI Stock Item ID] = SOURCE.[WWI Stock Item ID], TARGET.[Stock Item] =
SOURCE. [Description]
--When no records are matched, insert the incoming records from source table to
target table
WHEN NOT MATCHED
THEN INSERT ([WWI Stock Item ID],[Stock Item],[Color],[Selling
Package],[Buying Package],[Brand],[Size],[Lead Time Days],[Quantity Per Outer]
,[Is Chiller Stock],[Barcode],[Tax Rate],[Unit Price],[Recommended Retail
Price],[Typical Weight Per Unit],[Photo],[Valid From]
,[Valid To],[Lineage Key])
VALUES (SOURCE.[WWI Stock Item ID], SOURCE.[Description],
S'N/A', 'ignore', 'ignore', 'ignore', 'ignore'
,0,0,0, 'ignore', 0,0,0,0,0, GETDATE(), '9999-12-31 23:59:59.9999999', 0)

```

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/*MERGE [City Key] AS TARGET
USING Integration.Order_Staging
ON (TARGET.[WWI City Key] = SOURCE.[City Key]) */
/*MERGE [Customer Key] AS TARGET
USING Integration.Order_Staging
ON (TARGET.[WWI Customer Key] = SOURCE.[Customer Key]) */
/*MERGG:[Stock Item Key],[Order Date Key],[Picked Date Key],[Salesperson
Key],[Picker Key] on WWI Key */
--Then UPDATE Integration.Order_Staging from above tables.
--THEN MERGE Fact.Order
MERGE [Fact].[Order] AS TARGET
USING Integration.Order_Staging AS SOURCE
ON (TARGET.[WWI Stock Item ID] = SOURCE.[WWI Stock Item ID])
--When records are matched, update the records if there is any change
WHEN MATCHED
THEN UPDATE SET
TARGET.[City Key] = SOURCE.[City Key],
TARGET.[Customer Key] = SOURCE. [Customer Key],
TARGET.[Stock Item Key] = SOURCE. [Stock Item Key],
TARGET.[Order Date Key] = SOURCE. [Order Date Key],
TARGET.[Picked Date Key] = SOURCE. [Picked Date Key],
TARGET.[Salesperson Key] = SOURCE. [Salesperson Key],
TARGET.[Picker Key] = SOURCE. [Picker Key],
TARGET.[WWI Order ID] = SOURCE. [WWI Order ID],
TARGET.[WWI Backorder ID] = SOURCE. [WWI Backorder ID],
TARGET.[Description] = SOURCE. [Description],
TARGET.[Package] = SOURCE. [Package],

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TARGET.[Quantity] = SOURCE. [Quantity],
TARGET.[Unit Price] = SOURCE. [Unit Price],
TARGET.[Tax Rate] = SOURCE. [Tax Rate],
TARGET.[Total Excluding Tax] = SOURCE. [Total Excluding Tax],
TARGET.[Tax Amount] = SOURCE. [Tax Amount],
TARGET.[Total Including Tax] = SOURCE. [Total Including Tax],
TARGET.[Lineage Key] = SOURCE. [Lineage Key],
--When no records are matched, insert the incoming records from source table to
target table
WHEN NOT MATCHED
THEN INSERT ([City Key],[Customer Key],[Stock Item Key],[Order Date
Key],[Picked Date Key],[Salesperson Key],[Picker Key]
,[WWI Order ID],[WWI Backorder
ID],[Description],[Package],[Quantity],[Unit Price],[Tax Rate],[Total Excluding
Tax]
,[Tax Amount],[Total Including Tax],[Lineage Key])
VALUES (SOURCE.[City Key],SOURCE.[Customer Key],SOURCE.[Stock Item
Key],SOURCE.[Order Date Key],SOURCE.[Picked Date Key],SOURCE.[Salesperson Key],
SOURCE.[Picker Key],SOURCE.[WWI Order ID],SOURCE.[WWI Backorder
ID],SOURCE.[Description],SOURCE.[Package],SOURCE.[Quantity],SOURCE.[Unit
Price],SOURCE.[Tax Rate],
SOURCE.[Total Excluding Tax],SOURCE.[Tax Amount],SOURCE.[Total
Including Tax],SOURCE.[Lineage Key])
END

```