Department of Software Engineering
Mehran University of Engineering and Technology, Jamshoro

Course: SWE324 - Data Warehousing and Data Mining			
Instructor	Rabeea Jaffari	**Practical/Lab No.**	09
Date	1st Aug 2018	**CLOs**	CLO-4: P3 & P4
Signature		**Assessment Score**	1 Marks

Topic	To become familiar with ETL process
Objectives	- To learn ETL process for DWHs using Integration Services.

Lab Discussion: Theoretical concepts and Procedural steps

Lab Tasks

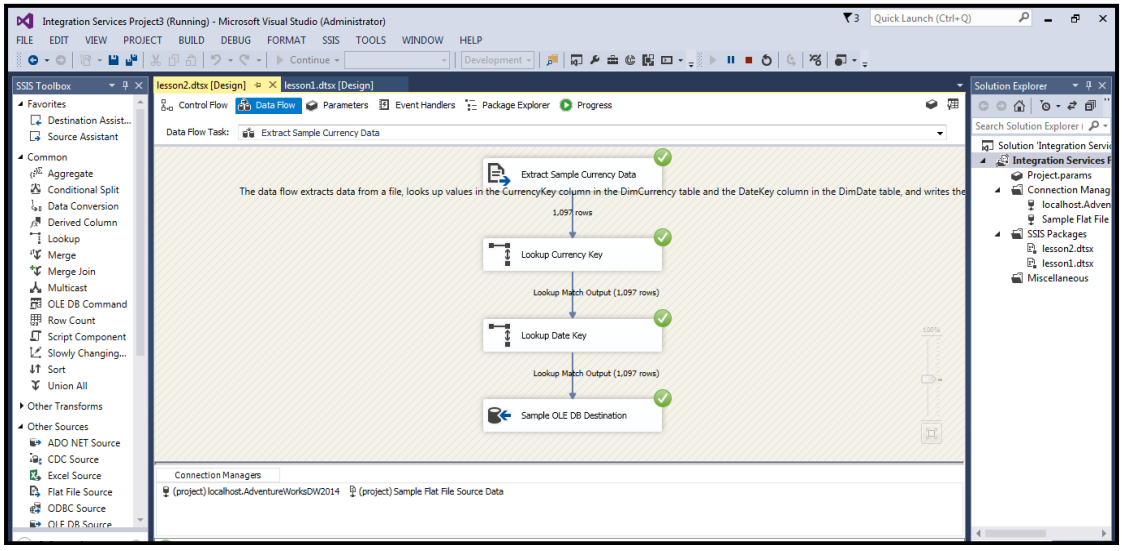
Submission Date: 08-08-18

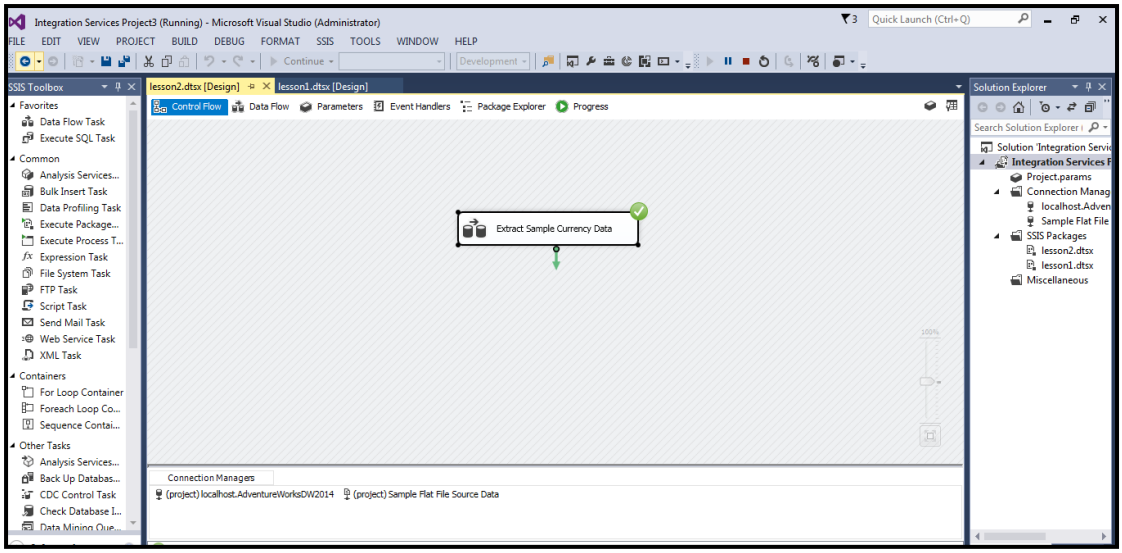
TASK : Lab1 dealt with extracted data from a single flat file source, transformed the data using Lookup transformations, and finally loaded the data into the **FactCurrency** fact table of the **AdventureWorksDW2014** sample database. However, a typical ETL process would extract data from multiple flat file sources and you have to do so. The sample files can be downloaded from the link below:

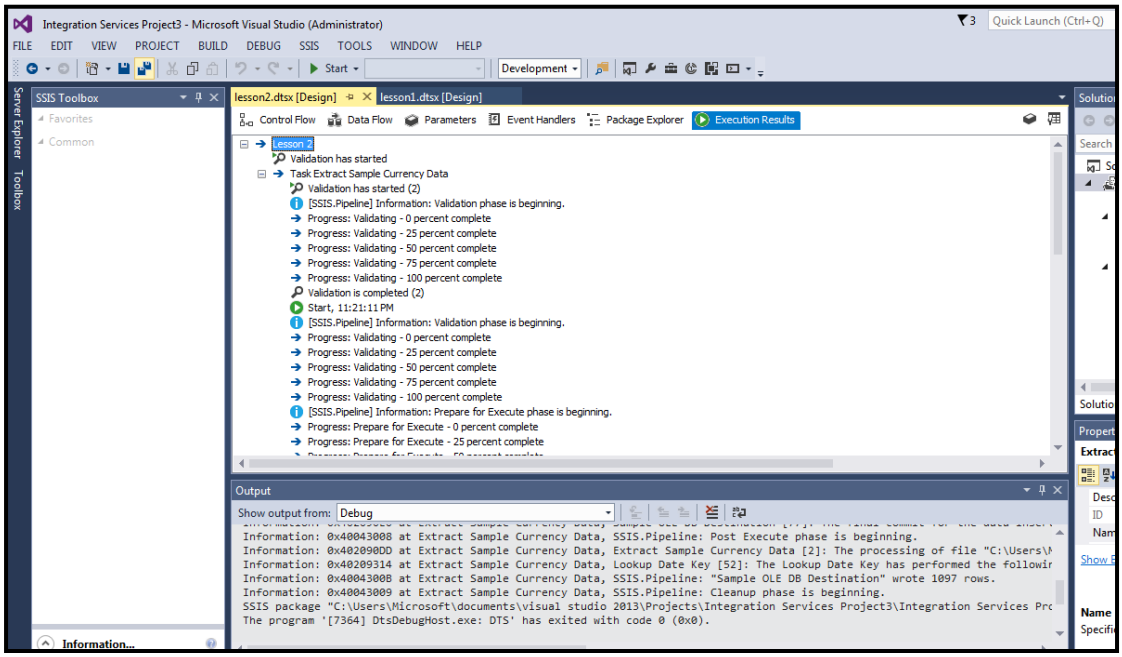
https://padlet.com/rubeeajaff/m0y6wnh2ifk1

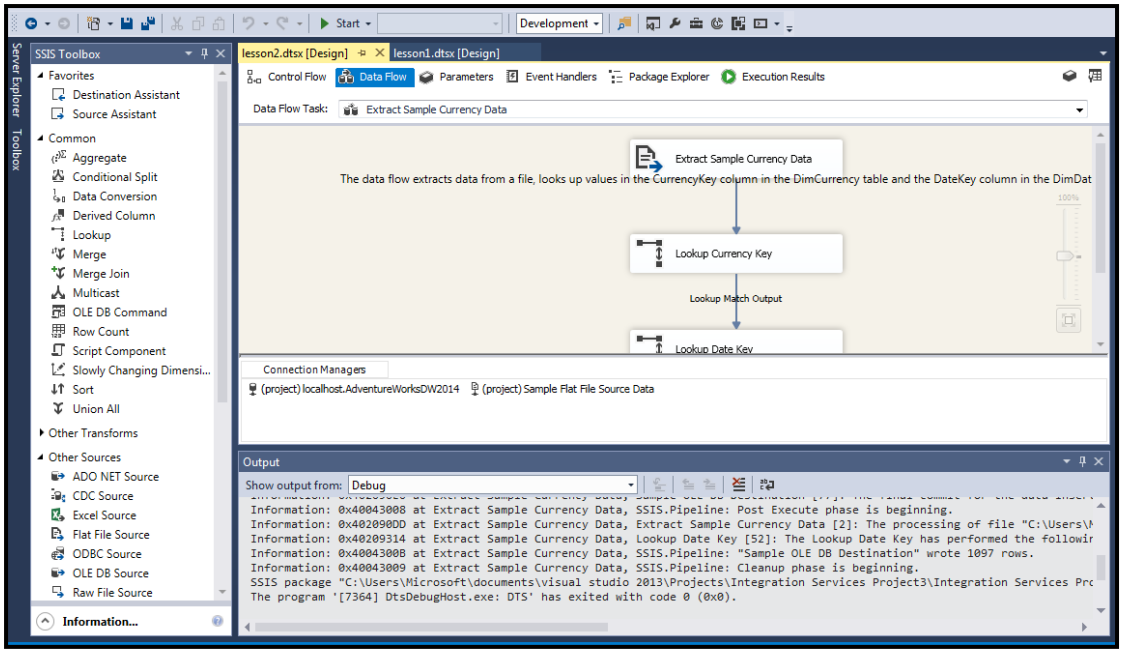
And the steps to be followed are found at the following link:

https://docs.microsoft.com/en-us/sql/integration-services/lesson-2-adding-looping-with-ssis?view=sql-server-2017

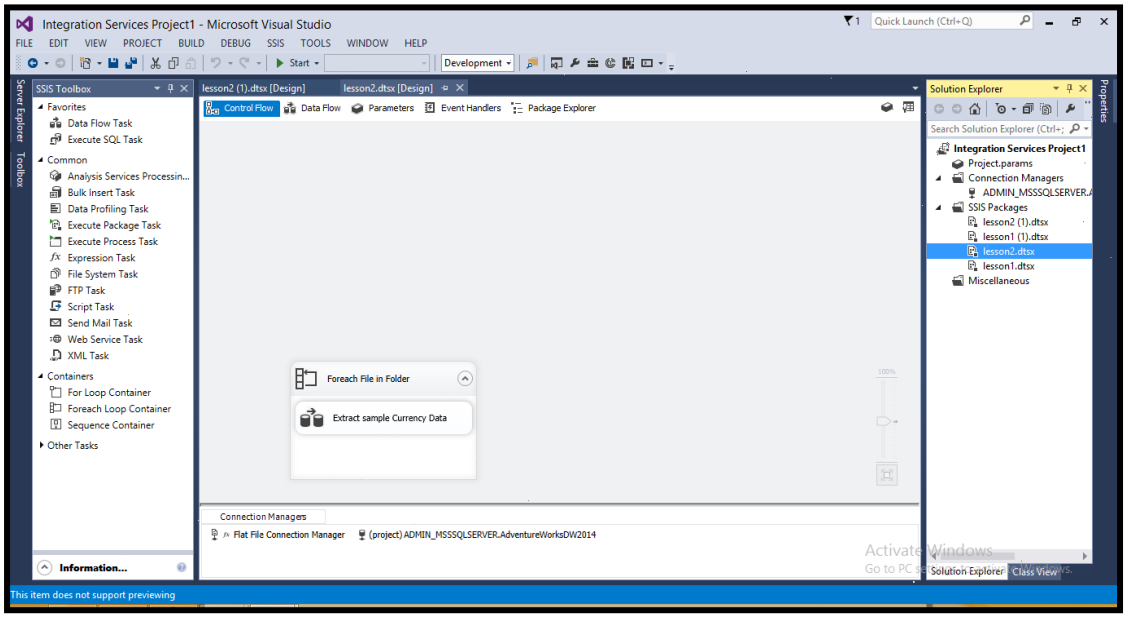


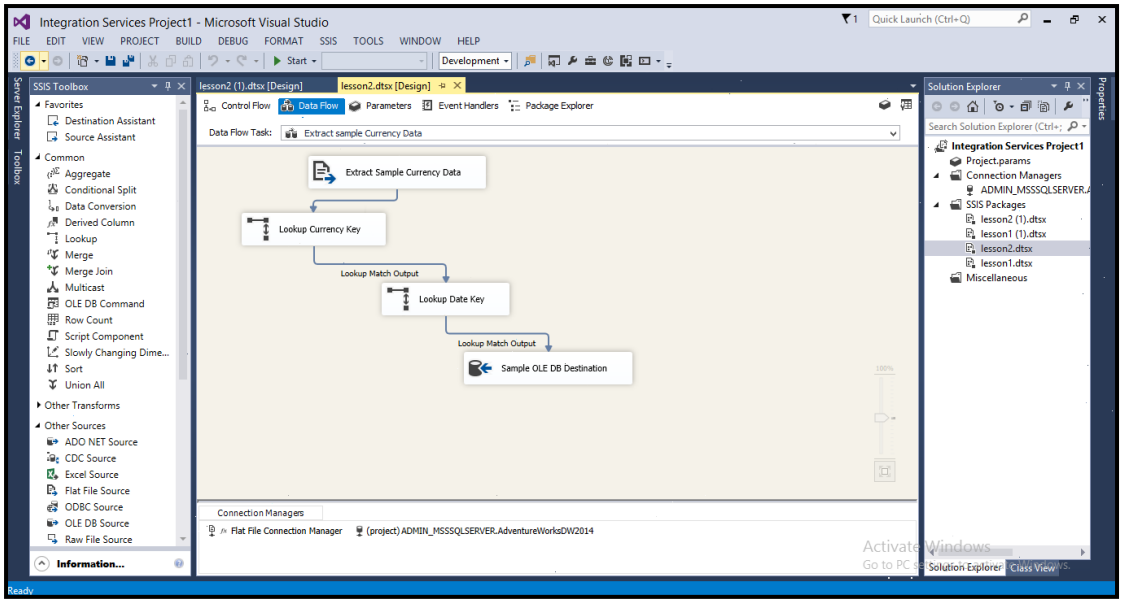

Integration Services Project3 (Running) - Microsoft Visual Studio (Administrator)
Extract Sample Currency Data

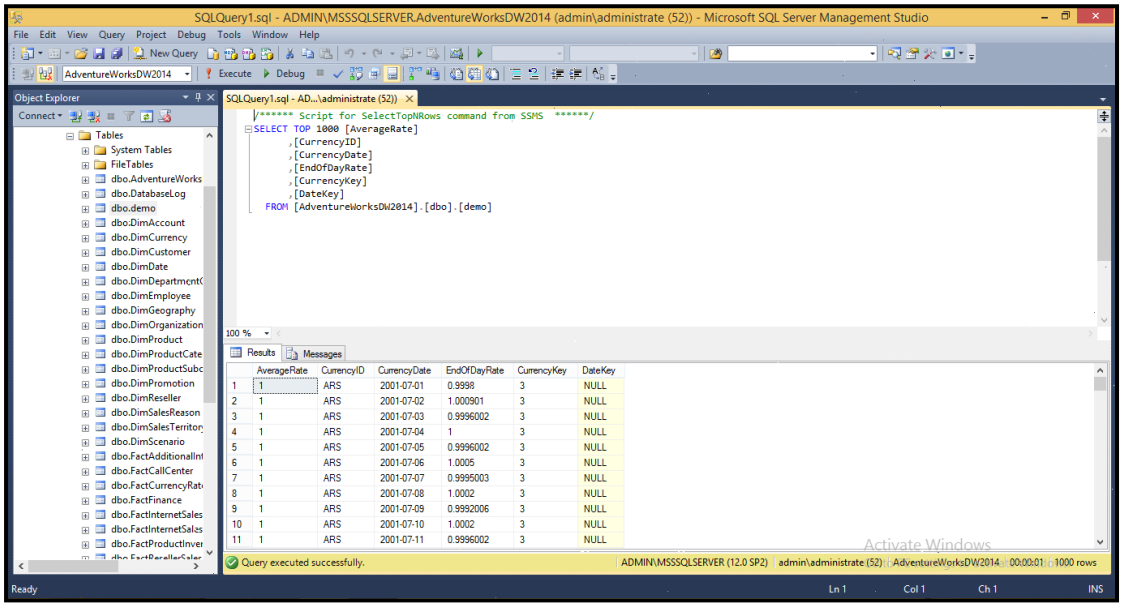

Integration Services Project3 - Microsoft Visual Studio (Administrator)
Lesson 2
Validation has started
Task Extract Sample Currency Data
Validation has started (2)
[SSIS.Pipeline] Information: Validation phase is beginning.
Progress: Validating - 0 percent complete
Progress: Validating - 25 percent complete
Progress: Validating - 50 percent complete
Progress: Validating - 75 percent complete
Progress: Validating - 100 percent complete
Validation is completed (2)
Start, 11:21:11 PM
[SSIS.Pipeline] Information: Validation phase is beginning.
Progress: Validating - 0 percent complete
Progress: Validating - 25 percent complete
Progress: Validating - 50 percent complete
Progress: Validating - 75 percent complete
Progress: Validating - 100 percent complete
[SSIS.Pipeline] Information: Prepare for Execute phase is beginning.
Progress: Prepare for Execute - 0 percent complete
Progress: Prepare for Execute - 25 percent complete
Information: 0x40043008 at Extract Sample Currency Data, SSIS.Pipeline: Post Execute phase is beginning.
Information: 0x402090DD at Extract Sample Currency Data, Extract Sample Currency Data [2]: The processing of file "C:\Users\
Information: 0x40209314 at Extract Sample Currency Data, Lookup Date Key [52]: The Lookup Date Key has performed the followir
Information: 0x40043008 at Extract Sample Currency Data, SSIS.Pipeline: "Sample OLE DB Destination" wrote 1097 rows.
Information: 0x40043009 at Extract Sample Currency Data, SSIS.Pipeline: Cleanup phase is beginning.
SSIS package "C:\Users\Microsoft\documents\visual studio 2013\Projects\Integration Services Project3\Integration Services Pro
The program '[7364] DtsDebugHost.exe: DTS' has exited with code 0 (0x0).


SSIS Toolbox
Favorites
Destination Assistant
Source Assistant
Common
Aggregate
Conditional Split
Data Conversion
Derived Column
Lookup
Merge
Merge Join
Multicast
OLE DB Command
Row Count
Script Component
Slowly Changing Dimensi...
Sort
Union All
Other Transforms
Other Sources
ADO NET Source
CDC Source
Excel Source
Flat File Source
ODBC Source
OLE DB Source
Raw File Source
Information...
lesson2.dtsx [Design]
lesson1.dtsx [Design]
Control Flow
Data Flow
Parameters
Event Handlers
Package Explorer
Execution Results
Data Flow Task:
Extract Sample Currency Data
The data flow extracts data from a file, looks up values in the CurrencyKey column in the DimCurrency table and the DateKey column in the DimDat
Extract Sample Currency Data
Lookup Currency Key
Lookup Match Output
Lookup Date Key
Connection Managers
(project) localhost.AdventureWorksDW2014
(project) Sample Flat File Source Data
Output
Show output from:
Debug
Information: 0x40043008 at Extract Sample Currency Data, SSIS.Pipeline: Post Execute phase is beginning.
Information: 0x402090DD at Extract Sample Currency Data, Extract Sample Currency Data [2]: The processing of file "C:\Users\
Information: 0x40209314 at Extract Sample Currency Data, Lookup Date Key [52]: The Lookup Date Key has performed the followir
Information: 0x40043008 at Extract Sample Currency Data, SSIS.Pipeline: "Sample OLE DB Destination" wrote 1097 rows.
Information: 0x40043009 at Extract Sample Currency Data, SSIS.Pipeline: Cleanup phase is beginning.
SSIS package "C:\Users\Microsoft\documents\visual studio 2013\Projects\Integration Services Project3\Integration Services Prc
The program '[7364] DtsDebugHost.exe: DTS' has exited with code 0 (0x0).

Class Task:


Integration Services Project1 - Microsoft Visual Studio
FILE EDIT VIEW PROJECT BUILD DEBUG SSIS TOOLS WINDOW HELP
Quick Launch (Ctrl+Q)
SSIS Toolbox
Favorites
Data Flow Task
Execute SQL Task
Common
Analysis Services Processin...
Bulk Insert Task
Data Profiling Task
Execute Package Task
Execute Process Task
Expression Task
File System Task
FTP Task
Script Task
Send Mail Task
Web Service Task
XML Task
Containers
For Loop Container
Foreach Loop Container
Sequence Container
Other Tasks
Information...
lesson2 (1).dtsx [Design]
lesson2.dtsx [Design]
Control Flow
Data Flow
Parameters
Event Handlers
Package Explorer
Foreach File in Folder
Extract sample Currency Data
Connection Managers
Flat File Connection Manager
(project).ADMIN_MSSSQLSERVER..AdventureWorksDW2014
Solution Explorer
Search Solution Explorer (Ctrl+;
Integration Services Project1
Project.params
Connection Managers
ADMIN_MSSSQLSERVER.A
SSIS Packages
lesson2 (1).dtsx
lesson1 (1).dtsx
lesson2.dtsx
lesson1.dtsx
Miscellaneous
Solution Explorer
Class View
Properties
This item does not support previewing


Integration Services Project1 - Microsoft Visual Studio
Extract Sample Currency Data
Lookup Currency Key
Lookup Match Output
Lookup Date Key
Lookup Match Output
Sample OLE DB Destination


SQLQuery1.sql - ADMIN\MSSSQLSERVER.AdventureWorksDW2014 (admin\administrate (52)) - Microsoft SQL Server Management Studio
/****** Script for SelectTopNRows command from SSMS ******/
SELECT TOP 1000 [AverageRate]
,[CurrencyID]
,[CurrencyDate]
,[EndOfDayRate]
,[CurrencyKey]
,[DateKey]
FROM [AdventureWorksDW2014].[dbo].[demo]