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**Course:** SQL DEV 330  
**Assignment:** Final Assignment

### **Question**

Create a manual describing how your Solution works.

### **Answer**

In this assignment, I will describe how the Solution works.

A Blank Solution called DWIndependentBookSellers\_RRajanbabu.sln is created in Visual Studio 2019. I have added both physical and logical folders such as Documents, Reports, and Scripts.

First, the 01-DWIndependentBookSellersSourceDB.sql is executed to create the source database. Second, the 03-DWIndependentBookSellersDestinationDB.sql is used to create the destination of the DW database. Third, the 04-DWIndependentBookSellersETLObjects.sql is used to create the ETL process using the DW database.

I created a SSIS project called IndependentBookSellersETL and a ETL package called IndependentBookSellersETLpackage.dtsx to visualize the ETL process. This has been created as a visual layout as well as an execution plan of the ETL process by linking stored procedures to be executed in a specific order. The SSIS package is automated through the use of SQL Server Agent. To set up the process, I had to set up credentials for SQL330 and then link it to a proxy named as SQL330. This proxy is used to execute the SSIS package and it is scheduled to run daily at 1am. I have created this SQL Server Agent Job as a SQL script so this is can be easily created on another computer.

The 05-DWIndependentBookSellersMaintObjects.sql is used for restoring and backing up the database if any issues occur. The SQL Agent Job called DWIndependentBookSellersMaint is created to run the maintenance SProcs. The SQL330 proxy is used to execute the job and it is scheduled to run daily at 2am. I have created this SQL Server Agent Job as a SQL script so this is can be easily created on another computer.

The 06-DWIndependentBookSellersETLReportingObjects.sql and 07-DWIndependentBookSellersMaintReportingObjects.sql is used to create the ETL report views.

I created a SSRS project called DWIndependentBookSellersAdminReports. I have created ETL reports for each dimension table views such as DimAuthorsETLReport, DimStoresETLReport, and DimTitlesETLReport. I have created ETL reports for each fact table views such as FactTitleAuthorsETLReport and FactSalesETLReport. I have created ETL report called DWIndependentBookSellersETLReport and Maint report called DWIndependentBookSellersMaintReport. These reports display the ETL log, ETL process automation log, current ETL pipeline data, top 10 rows of current data and the table views of specific tables.

In conclusion, the solution is built on a series of steps which also utilize automation to seamlessly integrate the process. Multiple scripts are set up to be able to rerun the reestablish the proper structure if anything breaks during the process, especially the SQL Server Agent Job scripts which can set up the jobs just by executing the scripts. Also, the reports are used to visually display

information that is run through the scripts. All this integration helps lead the execution of the scripts to the reports which display final results of information that have been executed.