

# Report

Laboratory Work 1

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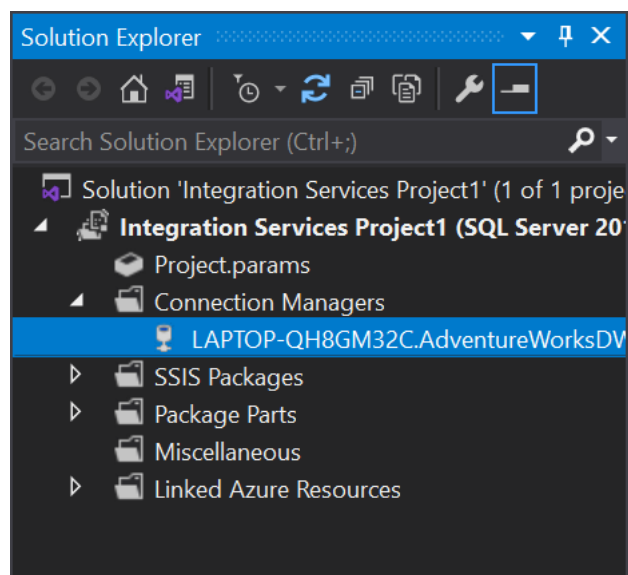
## 1. Lab 1: Introduction to SQL Server Integration Services

### 1.1. Exercise 1: Using the Import and Export Wizard Scenario

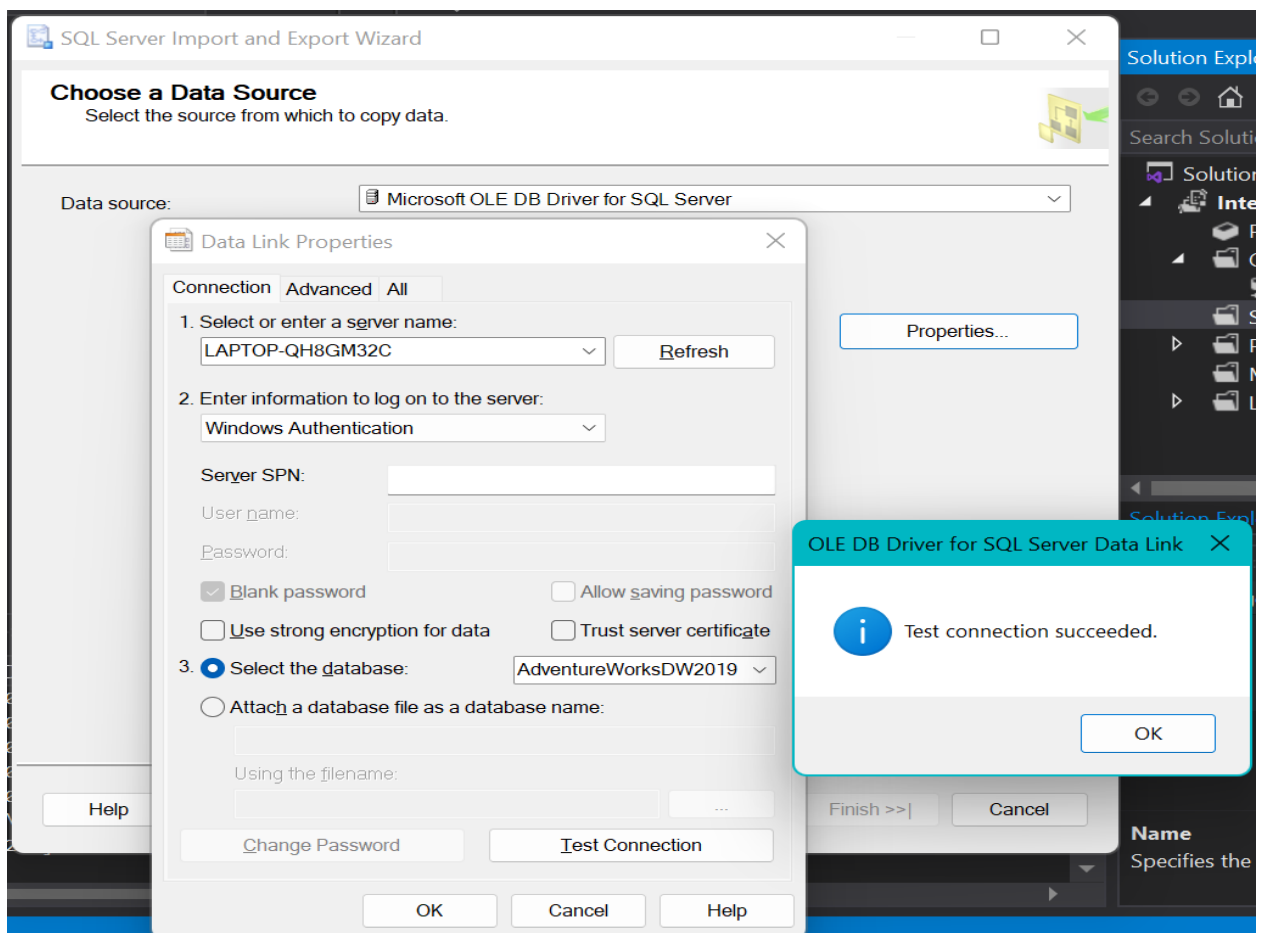
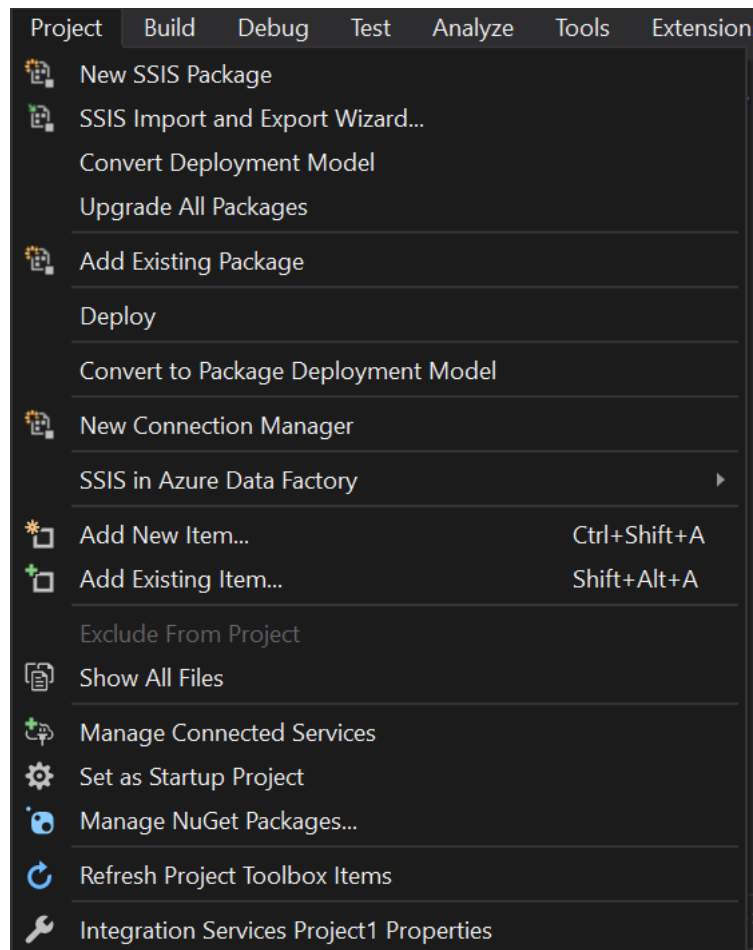
The Marketing department at Adventure Works requires a current list of the currencies used in the AdventureWorks2012 database. They want the list in the format of a comma-delimited text file. You must use SQL Server Integration Services to provide this information in the correct format and create the flat file from the information in the currency table (Sales.Currency). The name of the output file must be Currency.txt and it must contain the following fields: CurrencyCode, CurrencyName. You have to use Import and Export Wizard and save automatically created package within the solution.

**Note.** Firstly, I Downloaded SQL Server, SQL Server Management Studio, Visual Studio and SQL Server Integration Services. Used SQL Server to import dump database (AdventureWorksDW2019.bak)

**Note.** Then I created project and connection.



**Note.** Now let's create a new package to load data from AdventureWorksDW2019.bak into CSV (Currency.txt)



**SQL Server Import and Export Wizard**

**Choose a Destination**  
Specify where to copy data to.

Destination: Flat File Destination

Select a file and specify the file properties and the file format.

File name: C:\Users\Dmitry\AppData\Roaming\SQL Developer\myworks\oraclelabs\U3\Current... Browse...

Locale: English (United States) ☒ Unicode

Code page: 1252 (ANSI - Latin I)

Format: Delimited

Text qualifier: <none>

☒ Column names in the first data row

Help < Back Next > Finish >>| Cancel

**Write a query to specify the data to transfer**  
Use this option to write an SQL query to manipulate or to restrict the source data for the copy operation.

**Note.** I choose Write a query to select only columns specified in task (CurrencyCode, CurrencyName).

```
select [CurrencyAlternateKey],[CurrencyName]
from [dbo].[DimCurrency]
```

**SQL Server Import and Export Wizard**

**The execution was successful**

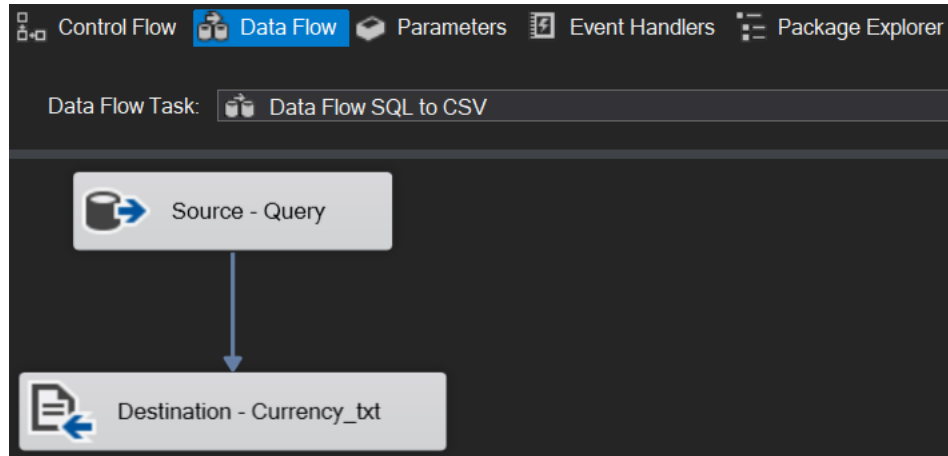
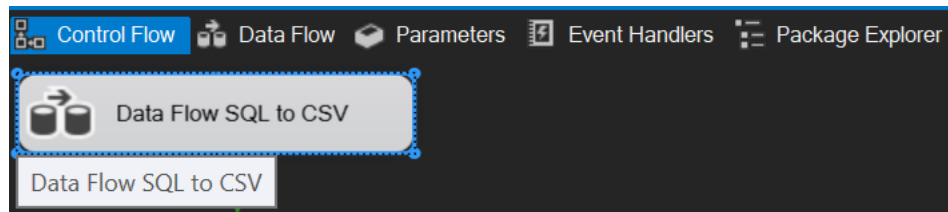
**Success** 7 Total 0 Error  
7 Success 0 Warning

Details:

Action	Status	Message
Initializing Data Flow Task	Success	
Initializing Connections	Success	
Setting SQL Command	Success	
Setting Source Connection	Success	
Setting Destination Connection	Success	
Validating	Success	
Saving	Success	

Filter Stop Report

Close



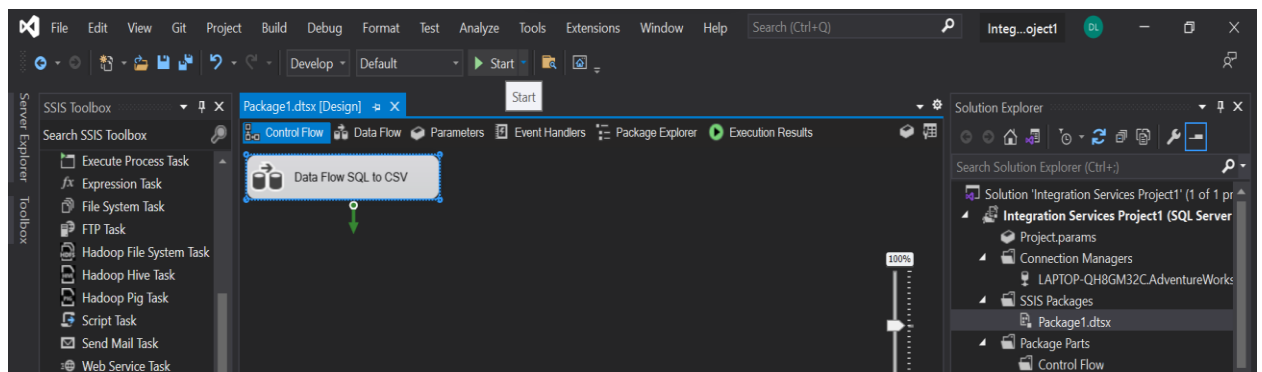
**Result:** Screenshots that shows using Import and Export Wizard.

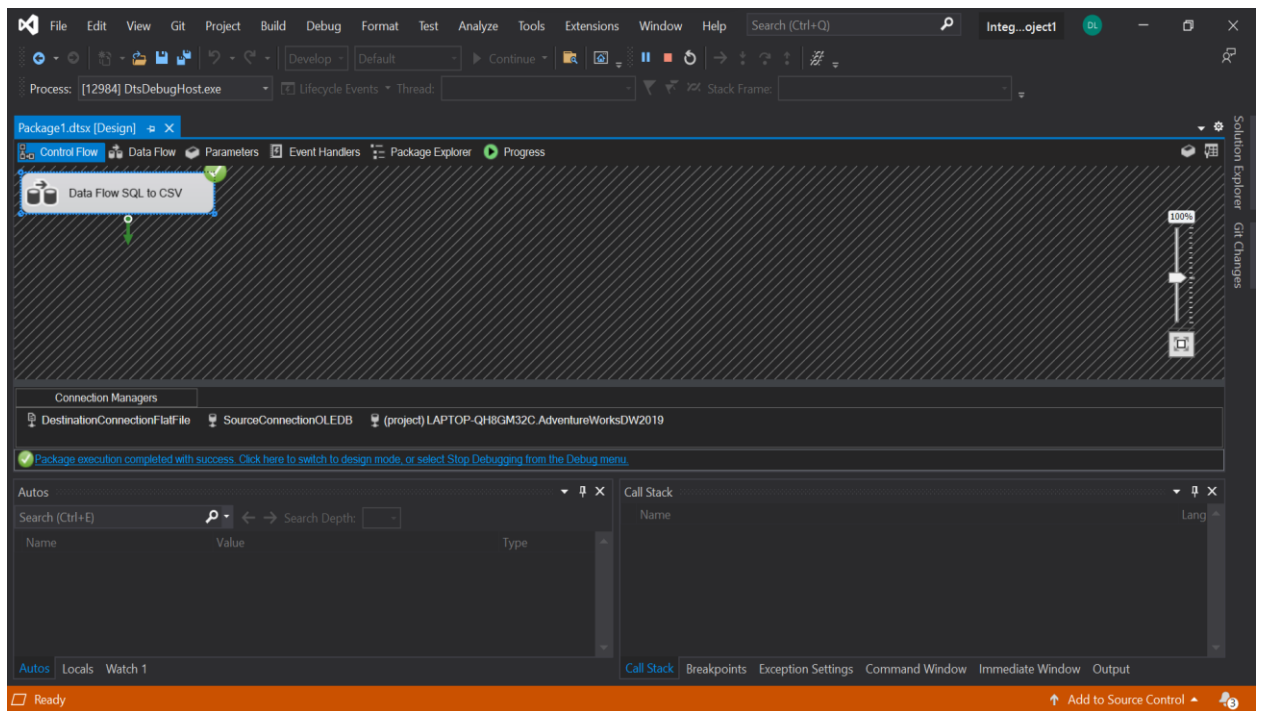
## 1.2. Exercise 2: Running an Integration Services Package

Now that the package is created, you will execute it and complete the export.

In this exercise you will run the CurrencyExport package and confirm that the export completed successfully.

You should execute the package from Visual Studio.





```
Currency.txt - Notepad
File Edit View

CurrencyAlternateKey,CurrencyName
AFA,Afghani
DZD,Algerian Dinar
ARS,Argentine Peso
AMD,Armenian Dram
AWG,Aruban Guilder
AUD,Australian Dollar
AZM,Azerbaijani Manat
BSD,Bahamian Dollar
BHD,Bahraini Dinar
THB,Baht
PAB,Balboa
BBD,Barbados Dollar
BEF,Belgian Franc
VEB,Bolivar
BOB,Boliviano
BRL,Brazilian Real
BND,Brunei Dollar
BGN,Bulgarian Lev
CAD,Canadian Dollar
GHC,Cedi
XOF,CFA Franc BCEAO
CLP,Chilean Peso
COP,Colombian Peso
CRC,Costa Rican Colon
HRK,Croatian Kuna
CYP,Cyprus Pound
CZK,Czech Koruna
DKK,Danish Krone
DEM,Deutsche Mark
DOP,Dominican Peso
VND,Dong
GRD,Drachma

Ln 1, Col 1
```

**Note.** Also imported report in file to practice how it works\*

```
ReportCurrency.txt - Notepad
File Edit View

The execution was successful
- Initializing Data Flow Task (Success)
- Initializing Connections (Success)
- Setting SQL Command (Success)
- Setting Source Connection (Success)
- Setting Destination Connection (Success)
- Validating (Success)
- Saving (Success)
Messages
* Information 0x4001f44e: Data Flow Task 1: Attempting to downgrade "Source - Query". The package is attempting to downgrade an extensible object.
(SQL Server Import and Export Wizard)
* Information 0x4001f44e: Data Flow Task 1: Attempting to downgrade "Destination - Currency_txt". The package is attempting to downgrade an extensible o
(SQL Server Import and Export Wizard)
```

**Note.** Here is same query from SQL Server AdventureWorksDW2019.  
[dbo].[DimCurrency]

SQLQuery1.sql - L...GM32C\Dmitry (56))\*

```
select [CurrencyAlternateKey],[CurrencyName]
from [dbo].[DimCurrency]
```

100 %

Results Messages

	CurrencyAlternateKey	CurrencyName
1	AFA	Afghani
2	DZD	Algerian Dinar
3	ARS	Argentine Peso
4	AMD	Armenian Dram
5	AWG	Aruban Guilder
6	AUD	Australian Dollar
7	AZM	Azerbaijani Manat
8	BSD	Bahamian Dollar
9	BHD	Bahraini Dinar
10	THB	Baht
11	PAB	Balboa
12	BBD	Barbados Dollar
13	BEF	Belgian Franc
14	VEB	Bolivar
15	BOB	Boliviano
16	BRL	Brazilian Real
17	BND	Brunei Dollar
18	BGN	Bulgarian Lev
19	CAD	Canadian Dollar
20	GHC	Cedi

**Result:** Output file that contains the list of currencies

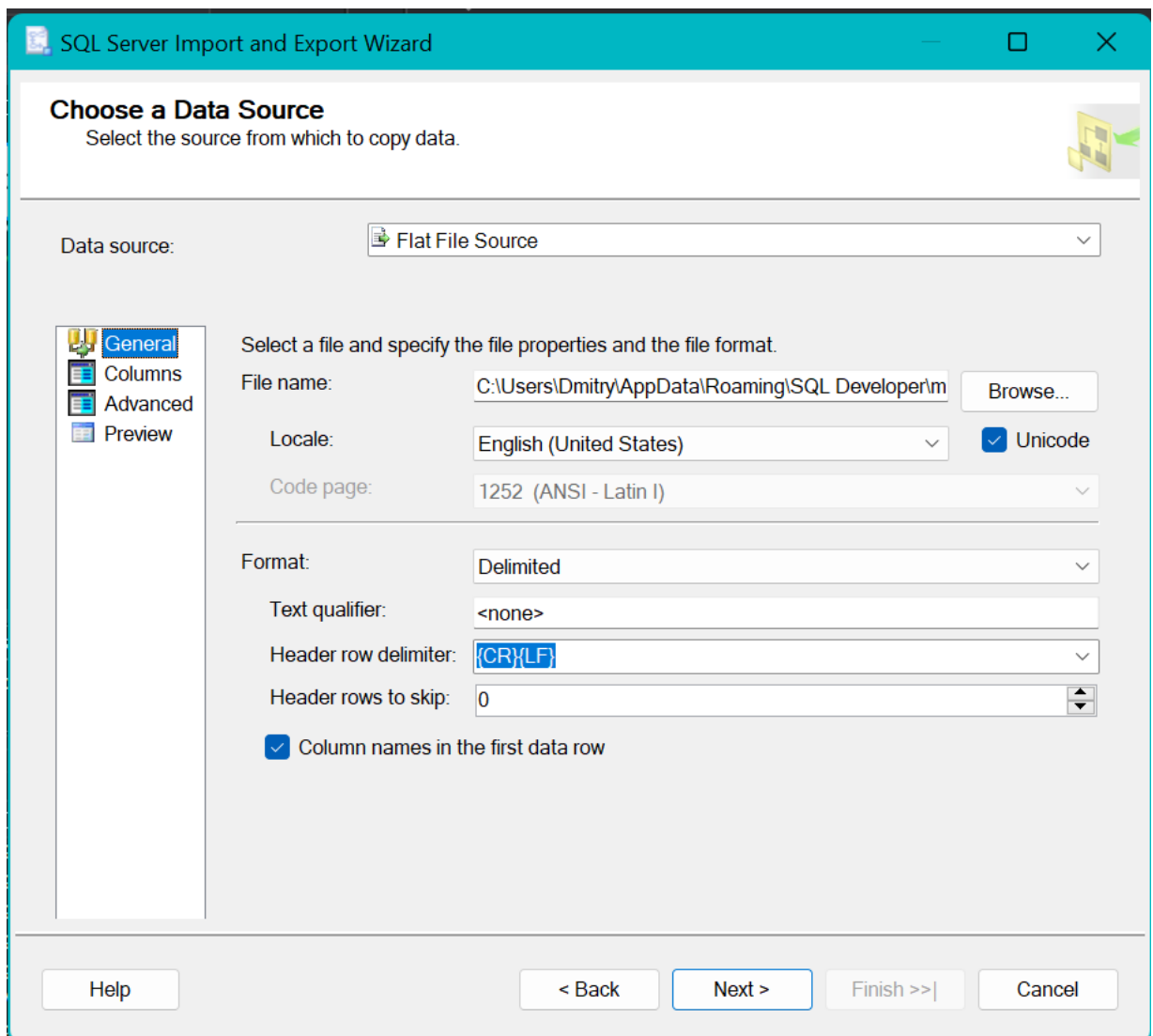
### 1.3. Exercise 3: Import Data Using the Import and Export Wizard

Use the Import and Export Wizard to import data from the flat file (Currency.txt) to the SQL database.

In this exercise you will use the Import and Export Wizard to move data stored in a flat file to the SQL database.

The file should be imported to a new table that will be automatically created by the wizard.

**Note.** Let's now transform this CSV into new table in SQL Server



The screenshot shows the 'SQL Server Import and Export Wizard' window, specifically the 'Choose a Data Source' step. The window has a teal title bar and a light gray background. The main heading is 'Choose a Data Source' with the instruction 'Select the source from which to copy data.' Below this, the 'Data source:' dropdown is set to 'Flat File Source'. On the left, there is a sidebar with four tabs: 'General' (selected), 'Columns', 'Advanced', and 'Preview'. The 'General' tab contains the following settings: 'File name:' is 'C:\Users\Dmitry\AppData\Roaming\SQL Developer\m' with a 'Browse...' button; 'Locale:' is 'English (United States)'; 'Code page:' is '1252 (ANSI - Latin I)'; 'Format:' is 'Delimited'; 'Text qualifier:' is '<none>'; 'Header row delimiter:' is '{CR}{LF}'; 'Header rows to skip:' is '0'; and the checkbox 'Column names in the first data row' is checked. At the bottom, there are five buttons: 'Help', '< Back', 'Next >', 'Finish >>|', and 'Cancel'.

SQL Server Import and Export Wizard

**Choose a Data Source**  
Select the source from which to copy data.

Data source: Flat File Source

**General**  
Columns  
Advanced  
Preview

Select a file and specify the file properties and the file format.

File name: C:\Users\Dmitry\AppData\Roaming\SQL Developer\m Browse...

Locale: English (United States) ☒ Unicode

Code page: 1252 (ANSI - Latin I)

Format: Delimited

Text qualifier: <none>

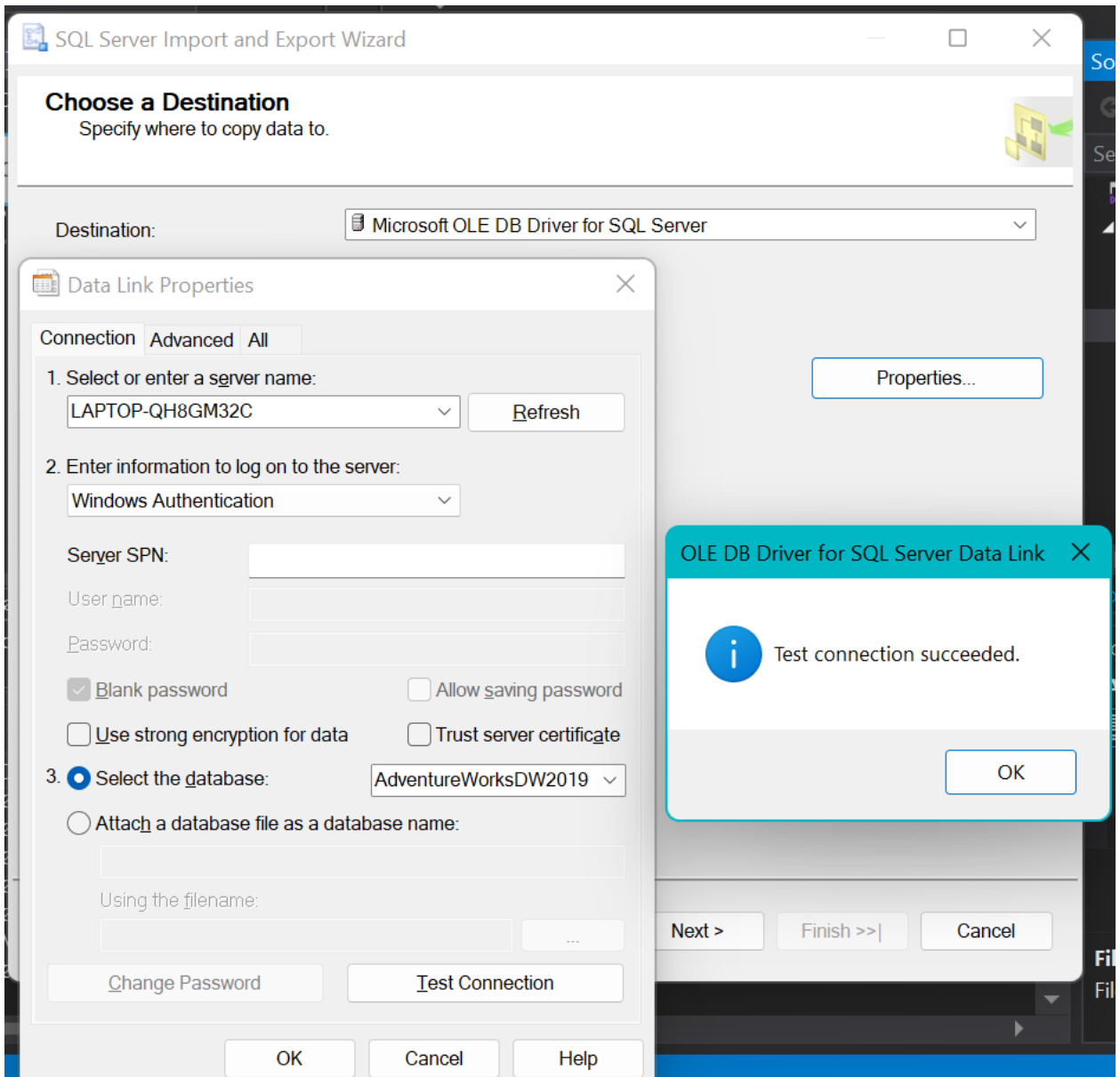
Header row delimiter: {CR}{LF}

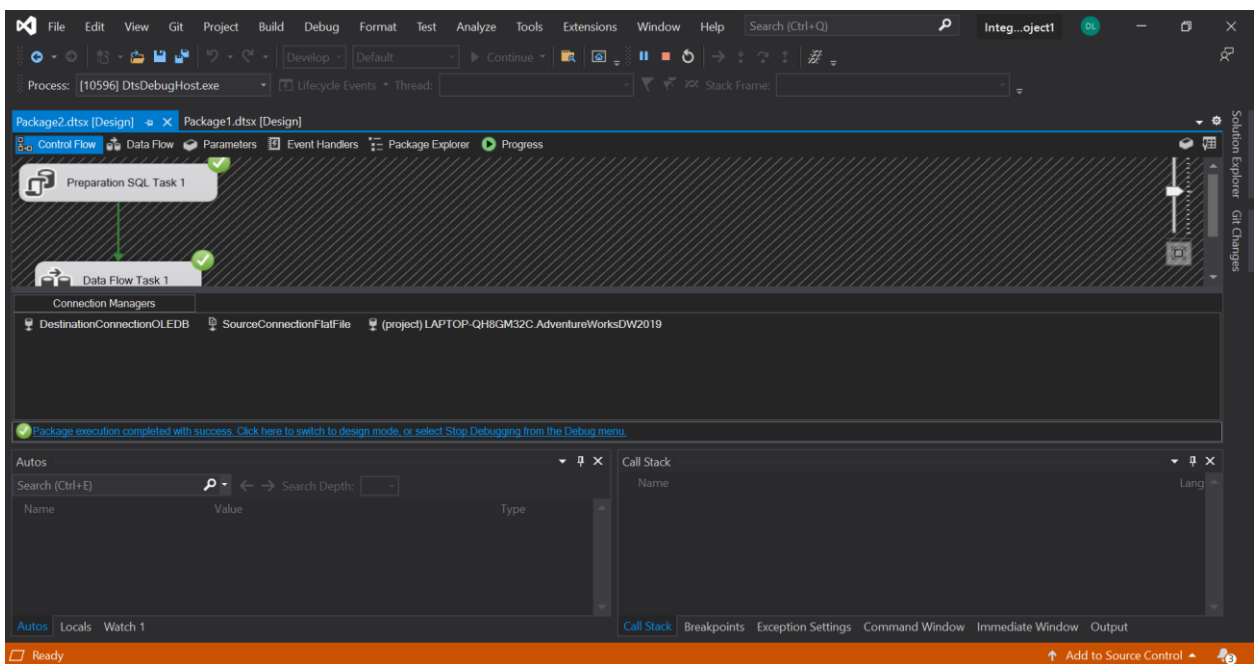
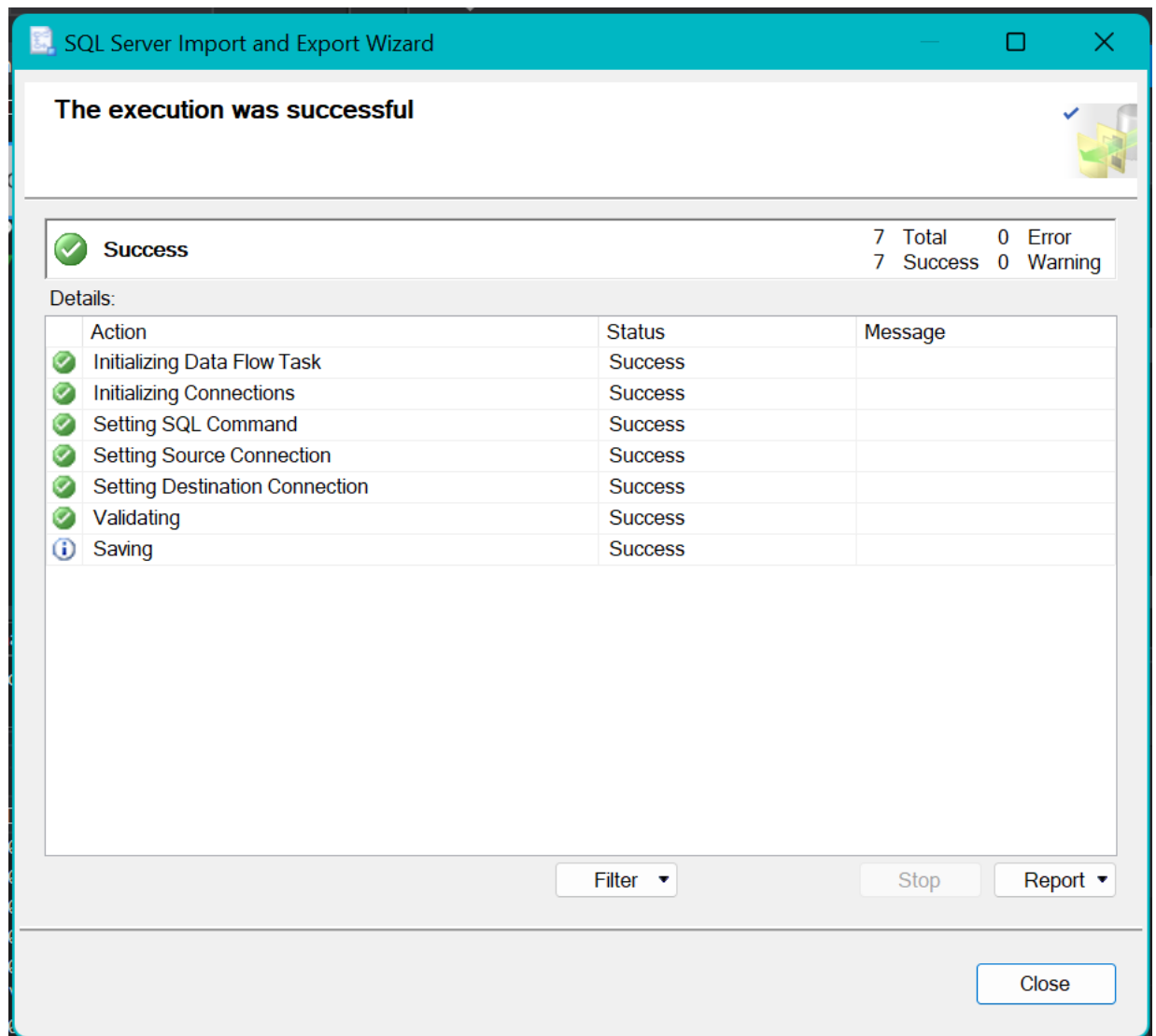
Header rows to skip: 0

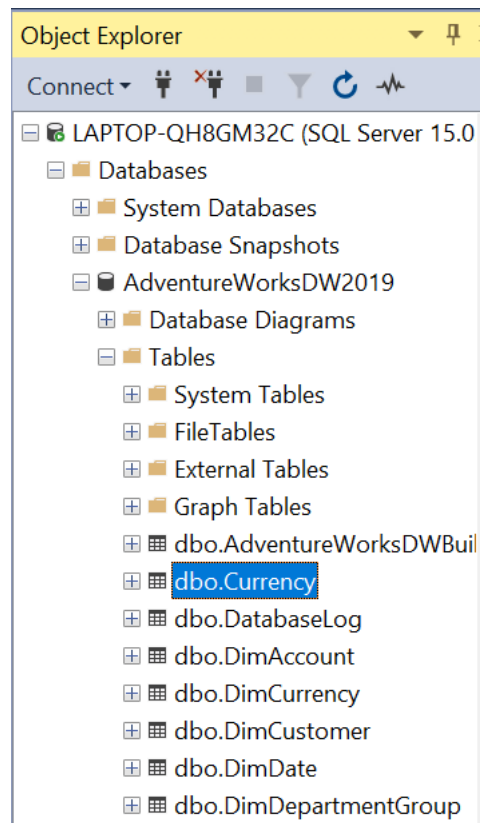
☒ Column names in the first data row

Help < Back Next > Finish >>| Cancel









```
SELECT TOP (1000) [CurrencyAlternateKey]
, [CurrencyName]
FROM [AdventureWorksDW2019].[dbo].[Currency]
```

100 %

Results Messages

	CurrencyAlternateKey	CurrencyName
1	AFA	Afghani
2	DZD	Algerian Dinar
3	ARS	Argentine Peso
4	AMD	Armenian Dram
5	AWG	Aruban Guilder
6	AUD	Australian Dollar
7	AZM	Azerbaijani Manat
8	BSD	Bahamian Dollar
9	BHD	Bahraini Dinar
10	THB	Baht
11	PAB	Balboa

**Result:** Screenshots that shows using Import and Export Wizard.

## **Laboratory Work Summary**

**At this Laboratory Work** we were introduced with such new services and programs as SQL Server, Visual Studio and SQL Server Integration Services.

**Practiced** how we could **transform** data in (from) different object types, creating **connections** and **packages**, working with **data flows**.