



Transformation Manager

Version 5.2

Tutorial 13 - Lookups



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Tutorial 13

Lookups

This tutorial introduces the use of lookups within TM Designer.

Prerequisites

Before starting this tutorial we recommend that you have completed the following tasks.

- 1) Transformation Manager has been installed.
- 2) An appropriate license has been installed.
- 3) The tutorial resources including data models, samples and source and target data stores have been downloaded and extracted to your Transformation Manager home directory.
- 4) You have completed tutorials 1, 2, 3, 4 and 6.

Concepts

Lookups provide a simple method of extracting values held in an external data store or in the source or target data models of the current project. They can then be used in transforms within the project to update the target data store. Lookups are held within the scope of a project and are not shared with other projects in the repository.

Information

In this tutorial we will create two projects which will demonstrate the features surrounding the use of lookups in TM Designer. The first tutorial creates a lookup that lets you assign the currency for a given record based on looking up this value in the target data store. The second project uses a similar lookup but as part of a conditional IF statement and provides a value based on the default return value. The second project also uses the **NOT** keyword to ensure that records with no value are not processed into the target data store using a dependent transform.

Learning Objectives

Using a lookup to get values for a transform

You will learn how to use a lookup to use values held in a target data store.

Use the NOT keyword

You will learn how to use the keyword NOT in the context of a lookup.

Exercise 1 - Start Transformation Manager and open the repository

This exercise will start Transformation Manager and open the tutorials repository ready to create a new project.

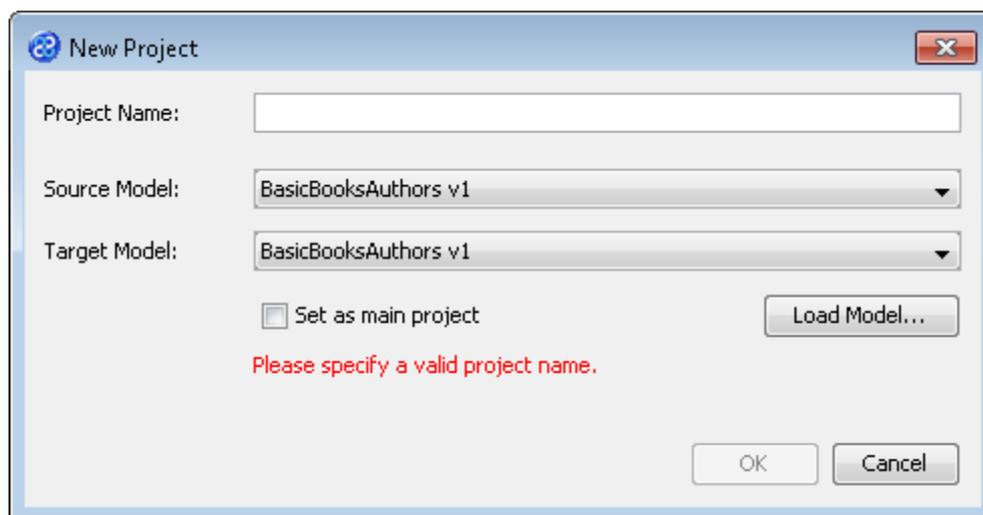


- 1) Looking at your desktop, find the icon that looks like this,
- 2) Then you have two options.
 - a) Using your mouse double-click the icon using the primary mouse button.
 - b) Using your mouse press the secondary mouse button, commonly the right-mouse button, while the cursor is over the icon. This will open the pop-up menu and then select **Open** from the available options.
- 3) Once Transformation Manager has opened and displays its interface connect to your repository, **MyExamples**.

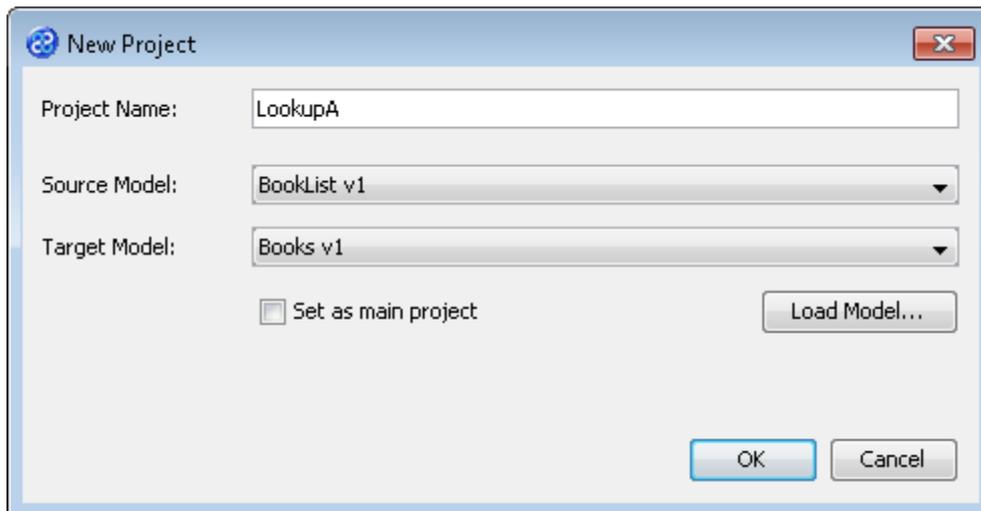
Exercise 2 - Create the LookupA Project

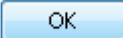
This exercise creates a new project where we will use a Derby relational database data model called **Books v1** and a flat file data model called **BookList v1**. We will also be creating a lookup called **getCurrency**.

- 1) Using your mouse click on the **File** option from the menu bar of TM Designer.
- 2) From the menu, click once on the **New Project...** option.
- 3) The **New Project** window will open.



- 4) In the **Project Name** field we will provide a name for the project. Let's call our project **LookupA** by typing the name into the field.
- 5) Now we must select the target and source models for our project. In the **Source Model** field select **BookList v1** from the list. In the **Target Model** field select **Books v1**.

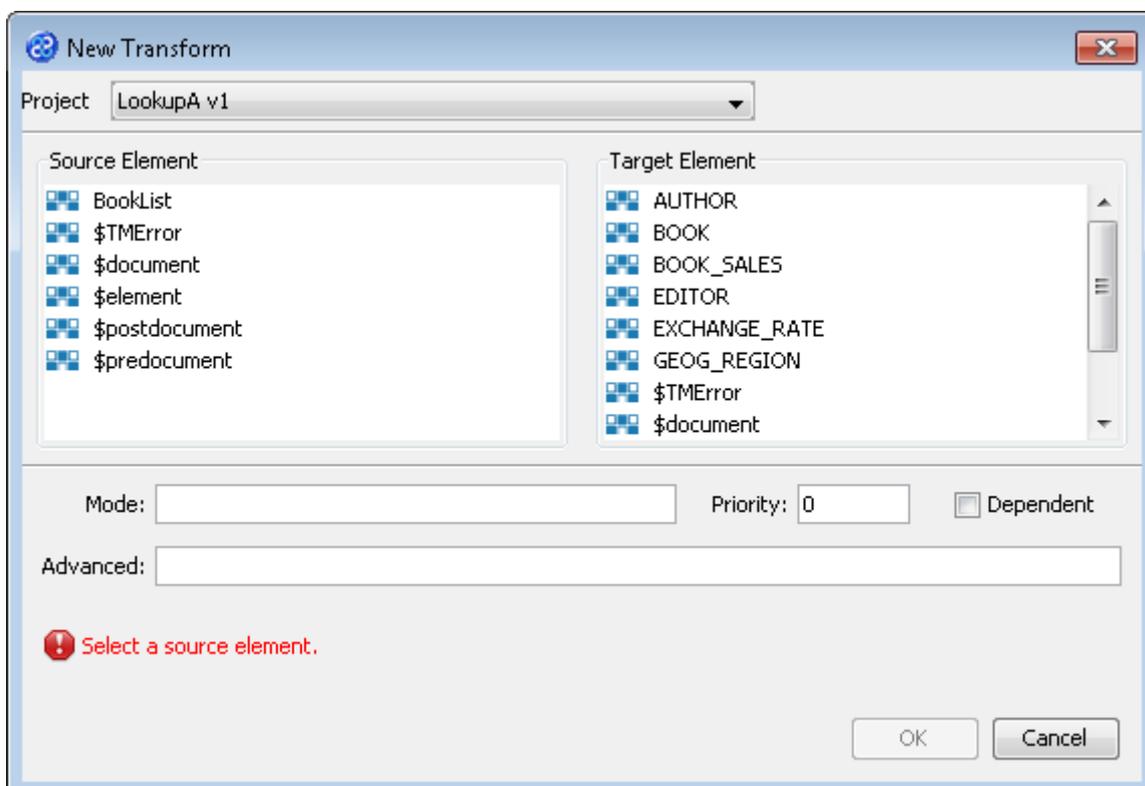


- 6) Now click once on the  button. Your project will be created and be displayed in the **Projects** pane.

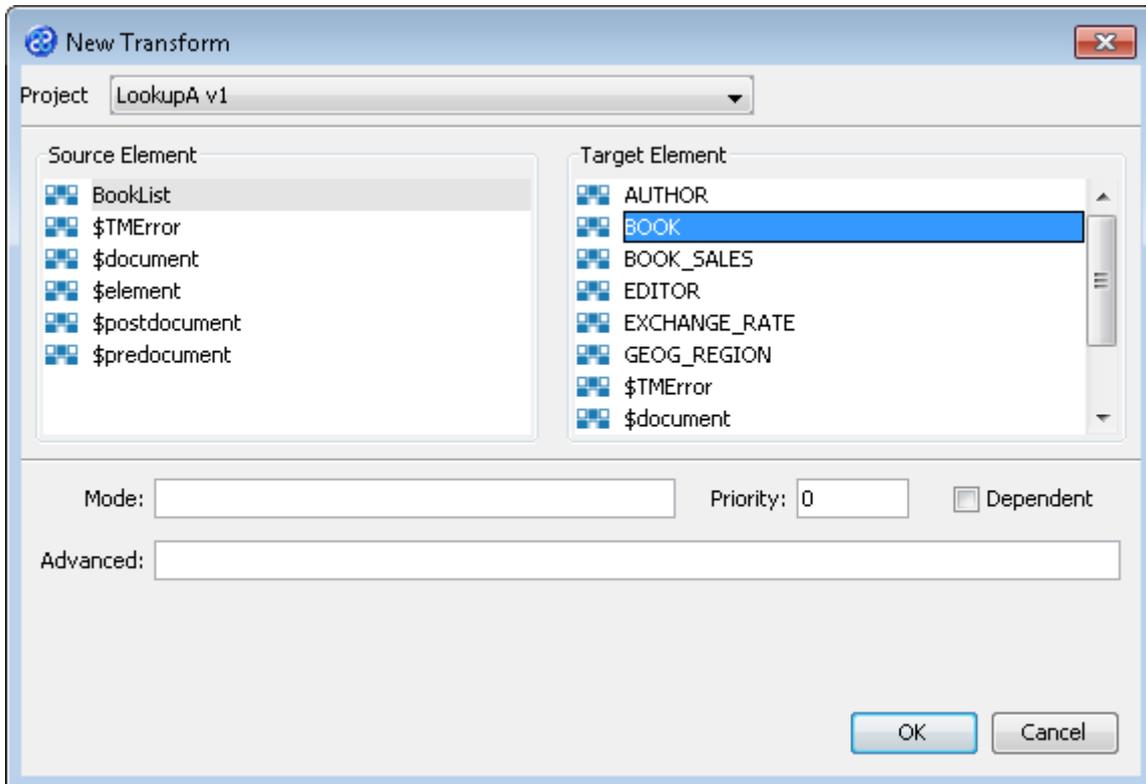
Exercise 3 - Create the Transform

This exercise creates our transform.

- 1) Click once on the **File** menu bar option.
- 2) Click once on the **New Transform...** option from the sub-menu.
- 3) This will open the **New Transform** window. Ensure that you have the correct project selected in the **Project** drop down list, in our case this will be **LookupA v1**.



- 4) With the **New Transform** window open, we will select the elements for the source and target. In this case the source element will be **BookList** and the target element will be **BOOK**. The **New Transform** window will look like the one below.



- 5) Click once on the **OK** button to create your new transform.
- 6) The Editor pane will open ready for you to write your transform code once the **New Transform** is created.
- 7) Now we will write our transform as shown below. You will see an error, , against the last line of the transform because we have not yet defined our lookup.

```
TITLE := title;
<ID> := <id>;
PRICE := price;

--Note the use of the getCurrency lookup.
CURRENCY := getCurrency(currency);
```

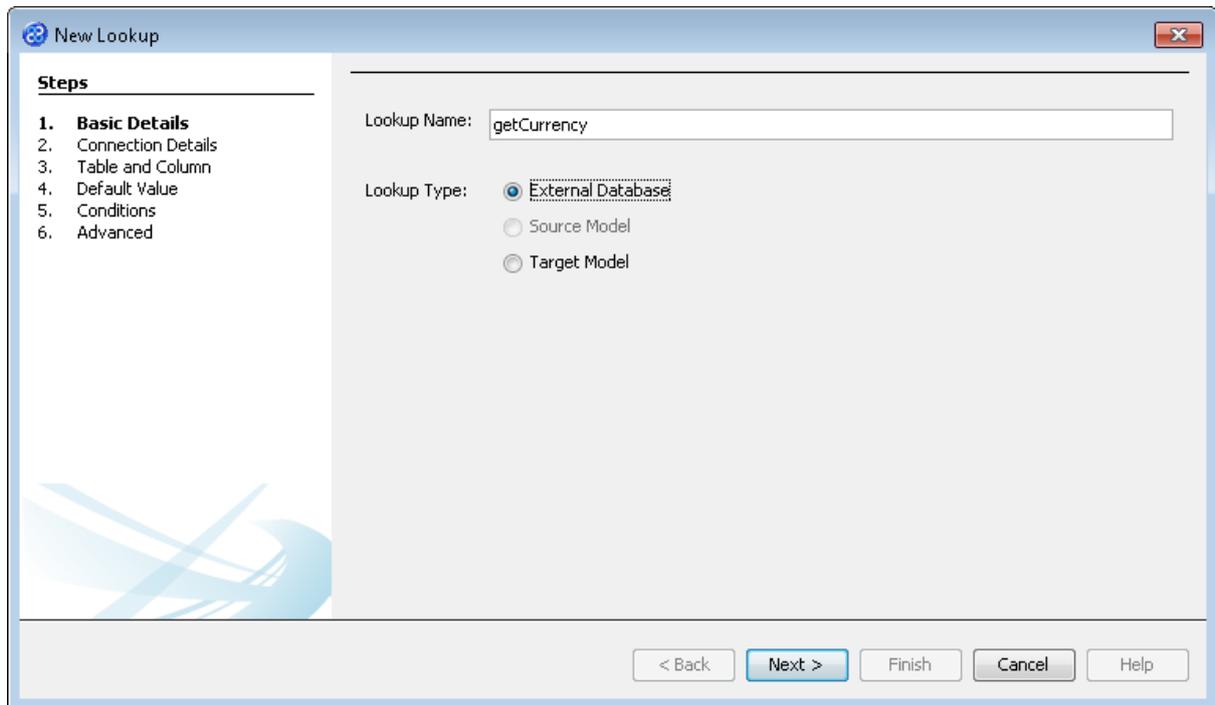
- 8) Click once on the **File** menu bar option.
- 9) Click once on the **Save** menu bar option to save your transform. Now let's create our lookup.

Exercise 4 - Create the Lookup for the Project Called LookupA

Now we will create our lookup called getCurrency.

- 1) Place the mouse pointer over the name of the project called LookupA and display the context menu by using the right mouse or secondary mouse button.
- 2) Select the option called **New Lookup...** from the list of options displayed.
- 3) This will open the **New Lookup** dialogue window.

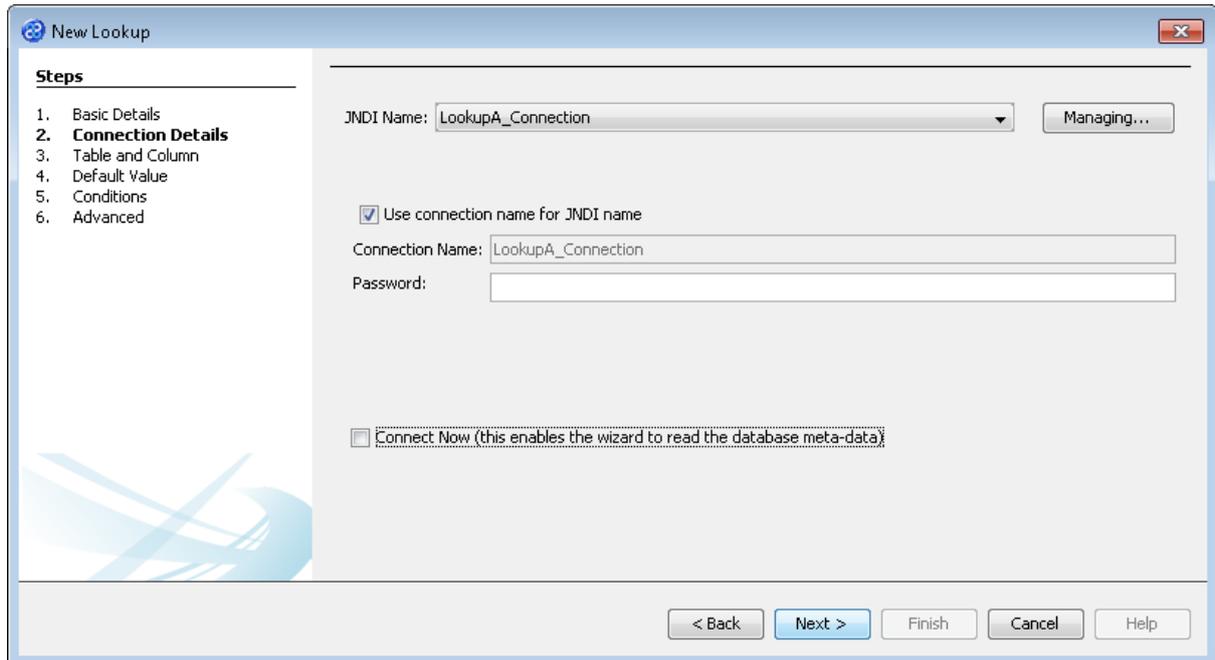
- 4) Enter the name of the lookup into the **Lookup Name** field. This will be **getCurrency**.
- 5) Set the **Lookup Type** radio button to be **External Database** if it is not already selected. The first step of the dialogue should look like the image below.



- 6) Click once on the **Next >** button to move to step 2, **Connection Details**. Since there is no pre-existing JNDI connection we will need to create one for this exercise.
- 7) Click once on the button to open the **Manage Connection Aliases** window.
- 8) Click once on the button to add a new connection alias and open the **New Connection Alias** window where we will set the connection details. Enter the following details.
 - a) In **Name** field type **LookupA_Connection**.
 - b) Leave the **User** and **Password** fields blank.
 - c) In the **URL** field select the option **jdbc:derby:<YOUR_NAME>** from the list available and replace the **<YOUR_NAME>** part of the option with the location of the lookup source which will be in the following location.

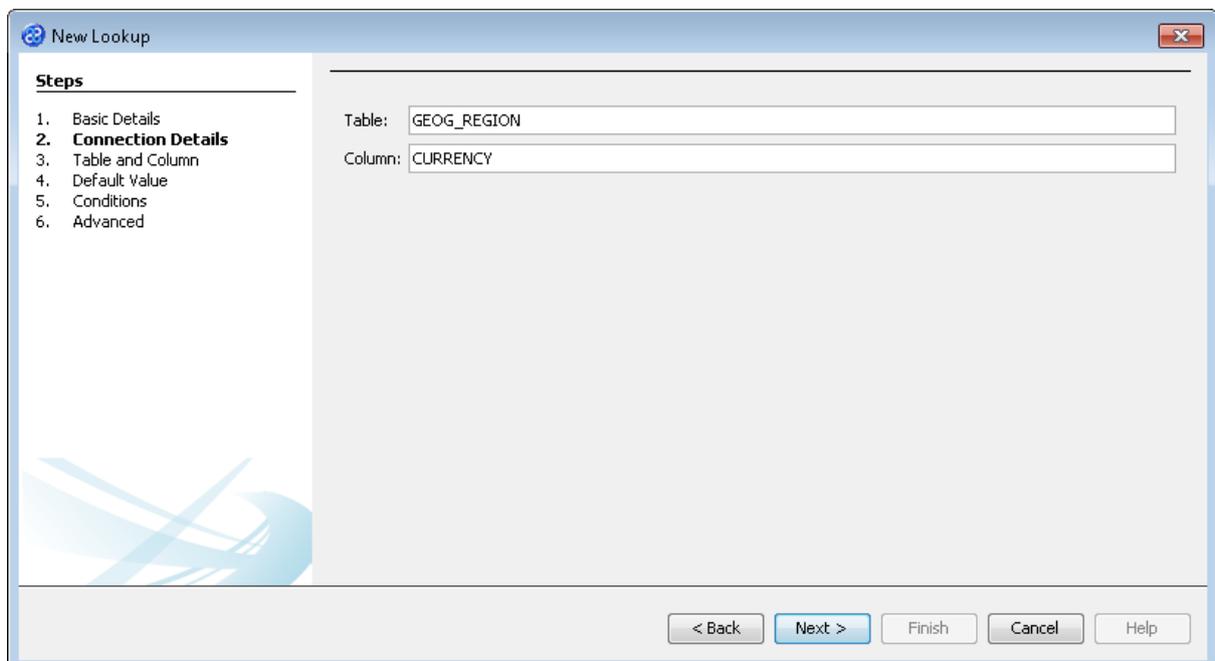

```
[TMHOME]\Tutorials\Source_and_Target\Tutorial_13_Lookups\Target\A\Lookup
```
 - d) In the **Driver** field select **org.apache.derby.jdbc.EmbeddedDriver** from the list of available options.
 - e) Leave the **SQL** field blank.
- 9) Click once on the **OK** button to add the new connection alias and return to the **New Connection Alias** window.
- 10) Check that the **LookupA_Connection** alias is selected and click on the **OK** button to set this as the value in the **JNDI Name** field of the **New Lookup, Connection Details** page of the wizard.

- 11) Check that there is a tick in the **Use connection name for JNDI name** and ensure there is not a tick in the **Connect Now** tick box.



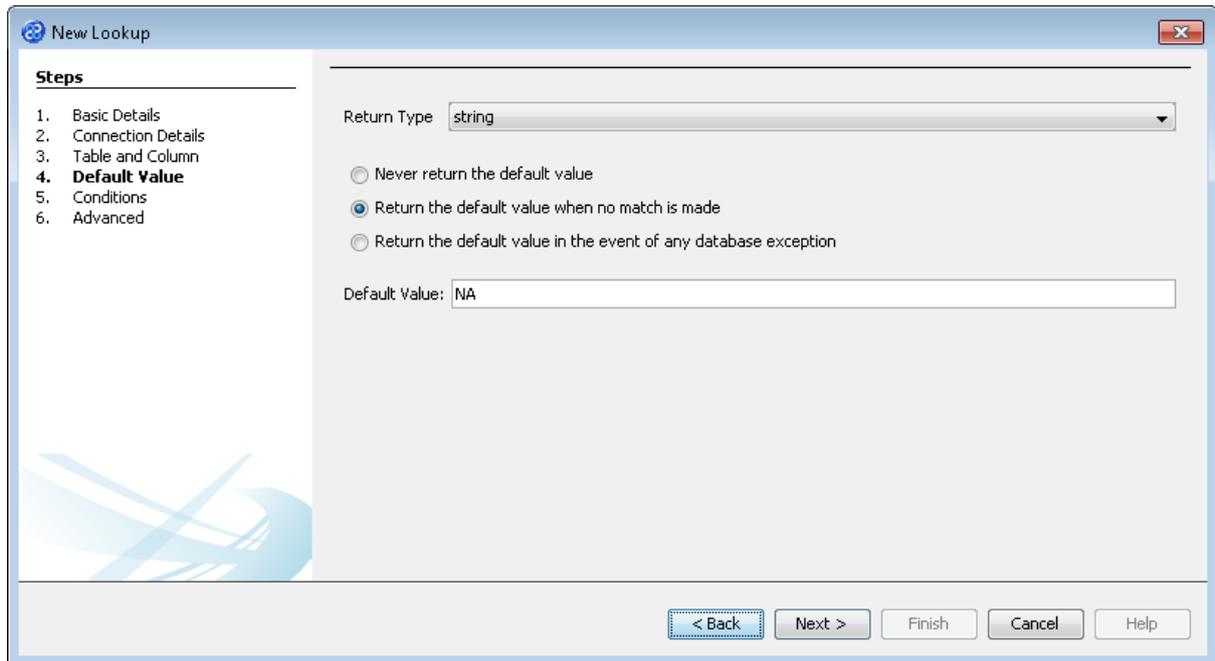
- 12) Click once on the **Next >** button to move to the Table and Column page of the New Lookup dialogue.

- 13) We will now specify the table and column values. Type into the entity or table field **GEOG_REGION** and into the attribute or column **CURRENCY**. The image below shows how step 3 should look.

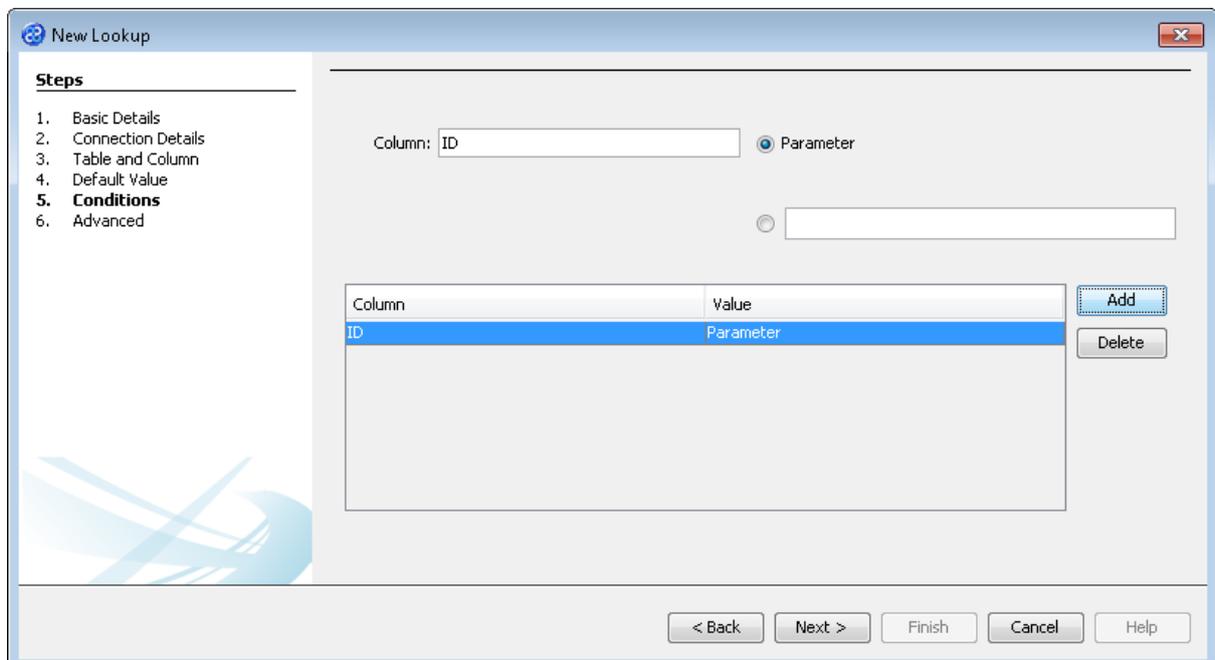


- 14) Click once on the **Next >** button to move to step 4, **Default Value**, for the **New Lookup** wizard. The default status of this step is **Never return the default value** but for our lookup we will set the radio button to **Return the default value when no match is made** and set the default value to be

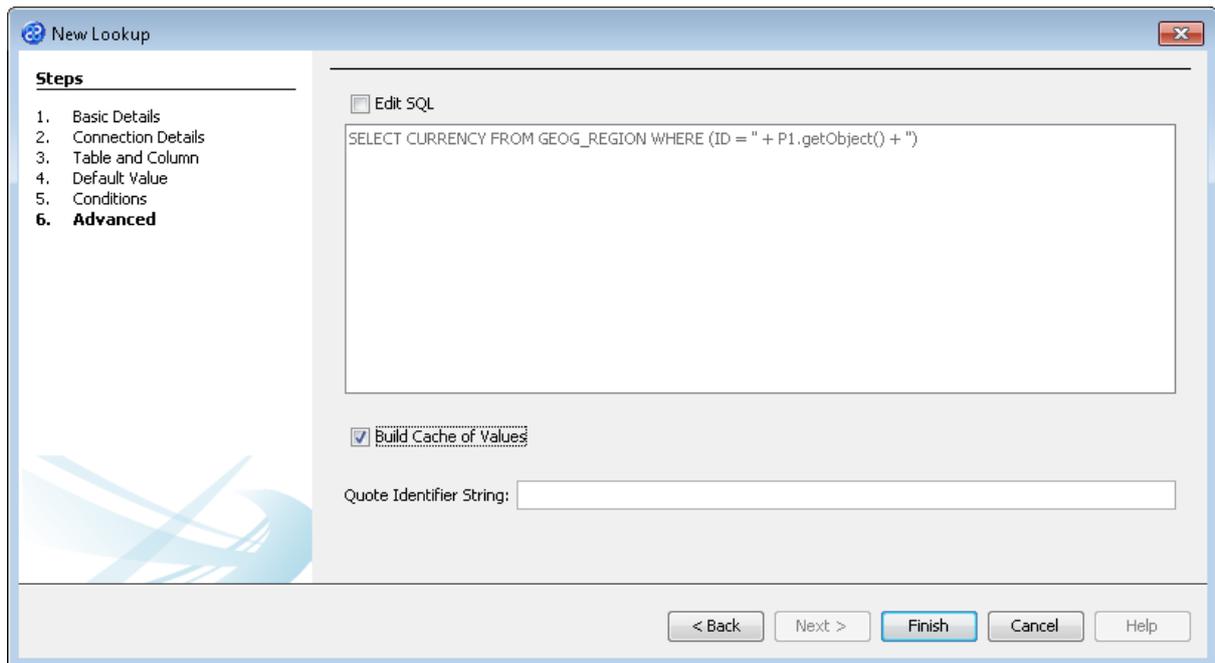
NA by typing this into the **Default Value** field. Check that the return type is set to **string**. This step should now look like the image below.



15) Click once on the **Next >** button to move to step 5, Conditions. In this step we will set a condition which is that the column ID will be a parameter. Type **ID** into the **Column** field. Now click once on the **Add** button to add the condition. This step should now look like the image below.



16) Click once on the **Next >** button to move to step 6, Advanced. Place a tick in the tick box called **Build Cache of Values**. Ignore all other fields on this page. The Advanced step will display different information depending on where the lookup values are coming from.

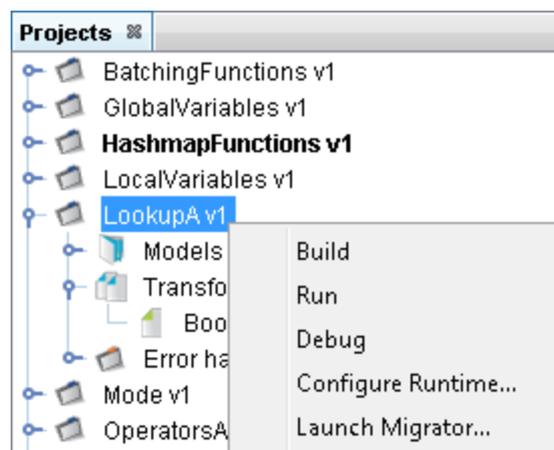


17) Click once on the **Finish** button to close the wizard and save your lookup. You may notice that the error icon, , has disappeared from our transform now that the lookup has been specified. Now we can build our project.

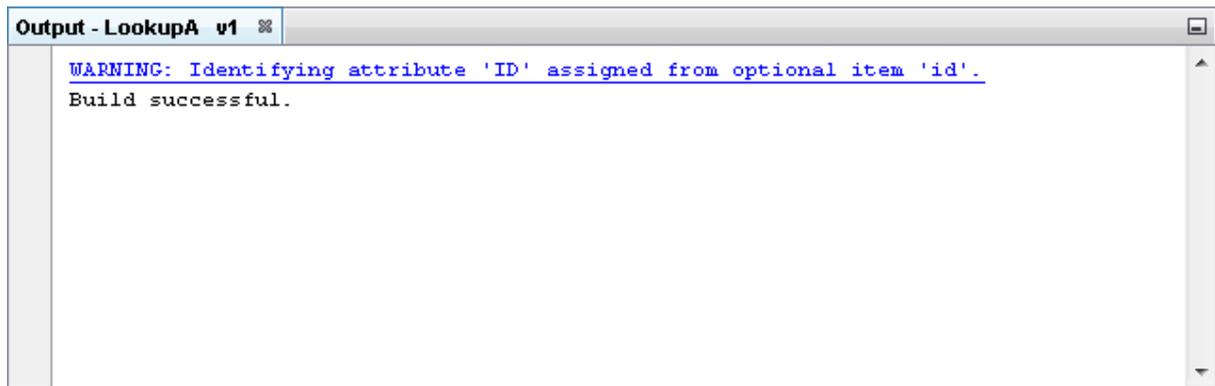
Exercise 5 - Build Your LookupA Project

Now we will build our project.

- 1) Move your mouse pointer so that it is over the title of the project you are working on and use the right mouse or secondary mouse button to display the context menu.



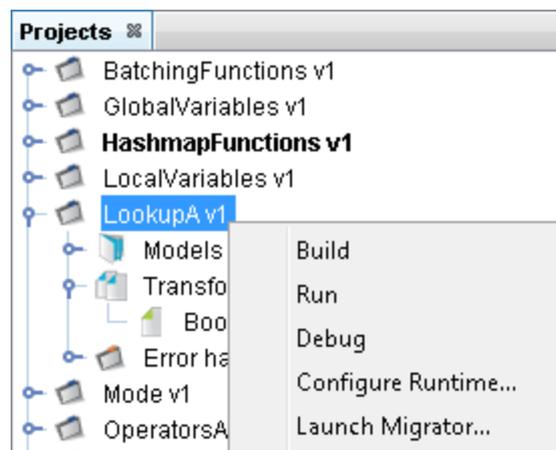
- 2) Click once on the **Build** option from the menu.
- 3) The **Output** pane will open and show you if there are any errors in your transform code. In this exercise you should not have any error messages and you should see a message stating **Build successful**.



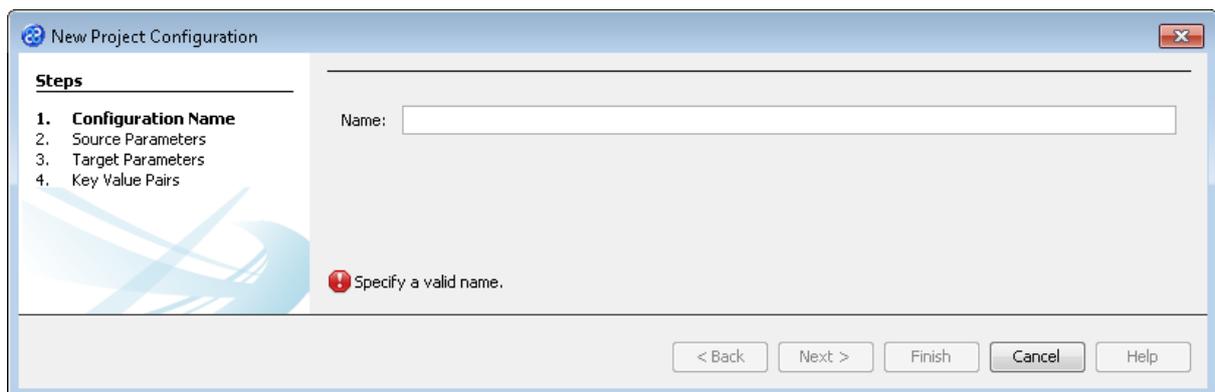
Exercise 6 - Run the Project

Now let's Run our transformation to see what results are produced. We will need to update the runtime configuration for this project.

- 1) Move your mouse pointer so that it is over the title of the project you are working on and use the right mouse or secondary mouse button to display the context menu.



- 2) Click the **Run** option from the menu. TM Designer will now open the New Project Configuration window where you will set the connection information for the project.



- 3) Let's give this configuration the name Config1. Type **Config1** into the **Name** field.
- 4) Click the **Next >** button to move to **Step 2. Source Parameters** where we will provide the details for the source data store connection.

- 5) Go to the **url_BookList** field of the **Source** pane. In this field we will specify where to get our data store file. Enter the following into the field or you can use the button to select the file.

[TMHOME]\Tutorials\Source_and_Target\Tutorial_13_Lookups\Source\A_B\BookListInput.csv

- 6) The **Source Parameters** step should look similar to the image below.

The screenshot shows the 'New Project Configuration' dialog box with the 'Source Parameters' step selected. The 'url_BookList' field is populated with the path: \\Tutorials\Source_and_Target\Tutorial_13_Lookups\Source\A_B\BookListInput.csv. There are 'Browse...' buttons next to the 'url_BookList', 'DirectoryName', and 'DirFileExtension' fields. The 'Steps' list on the left shows: 1. Configuration Name, 2. Source Parameters (highlighted), 3. Target Parameters, 4. Key Value Pairs. At the bottom, there are buttons for '< Back', 'Next >', 'Finish', 'Cancel', and 'Help'.

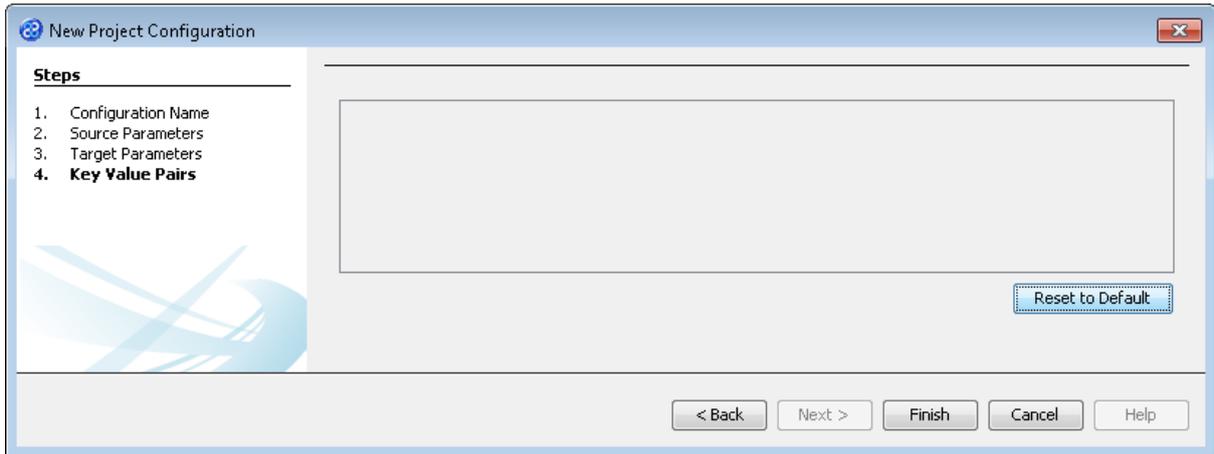
- 7) Click the **Next >** button to move to **Step 3. Target Parameters** where we will provide the details for the target data store connection.
- 8) Go to the **url** field. You will now need to provide the details of where to go to connect to the source data. View the list of options and select the option called **jdbc:derby:<YOUR_NAME>** from the drop down list. Now replace the **<YOUR_NAME>** part of the list item, including the angle brackets with the directory where the Derby database is stored. This will be in the following location.

[TMHOME]\Tutorials\Source_and_Target\Tutorial_13_Lookups\Target\A\Books

- 9) Go to the **driver** field and display the list of options available. Select the option called **org.apache.derby.jdbc.EmbeddedDriver**. The New Project Configuration window will look similar to the image below. **user**, **password** and **sqlinit** do not require values.
- 10) The **Target Parameters** step should look similar to the image below.

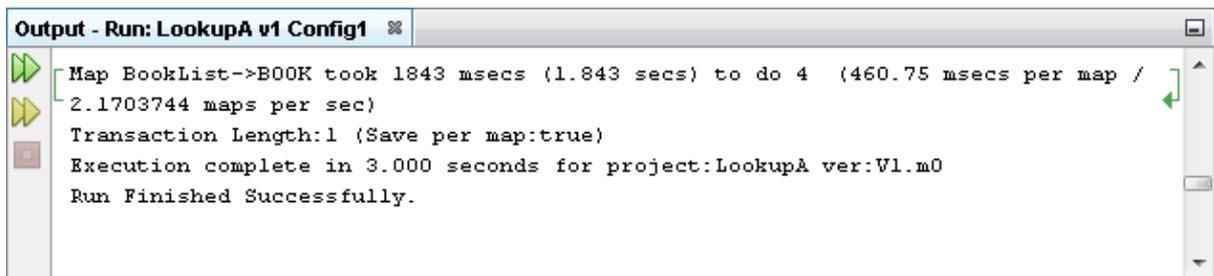
The screenshot shows the 'New Project Configuration' dialog box with the 'Target Parameters' step selected. The 'url' field is populated with: jdbc:derby:C:\Users\uc\TM\Tutorials\Source_and_Target\Tutorial_13_Lookups\Target\A\Books. The 'driver' field is populated with: org.apache.derby.jdbc.EmbeddedDriver. There are empty text boxes for 'user', 'password', and 'sqlinit'. The 'Steps' list on the left shows: 1. Configuration Name, 2. Source Parameters, 3. Target Parameters (highlighted), 4. Key Value Pairs. At the bottom, there are buttons for '< Back', 'Next >', 'Finish', 'Cancel', and 'Help'.

- 11) Click the **Next >** button to move to **Step 4. Key Value Pairs**. We do not need to specify any key value pairs in this exercise.



12) Click the **Finish** button to save the project configuration and to run the project within TM Designer. This performs the same execution as the **Launch Migrator...** option from the project context menu.

13) TM Designer will open the Output - Run pane with the results of running the project as shown below.

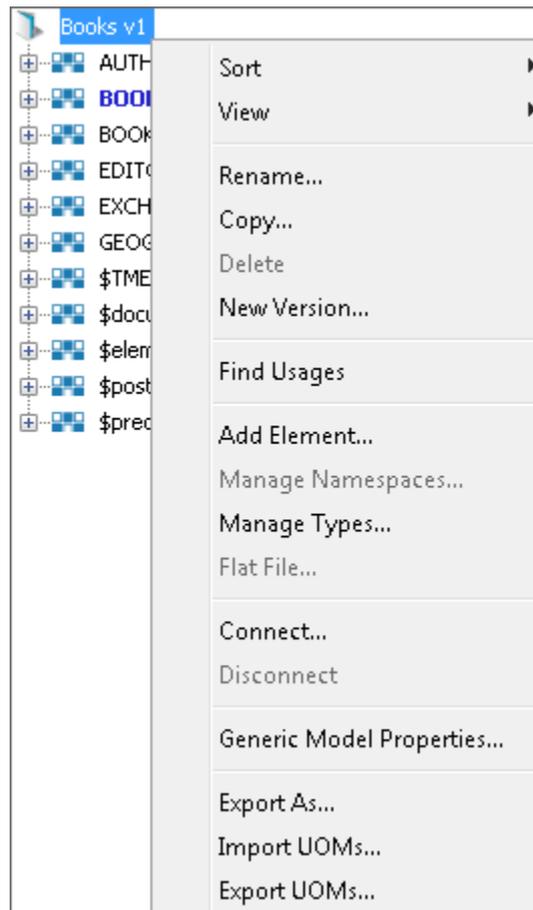


14) Let's now check the data using the **View Data...** functionality.

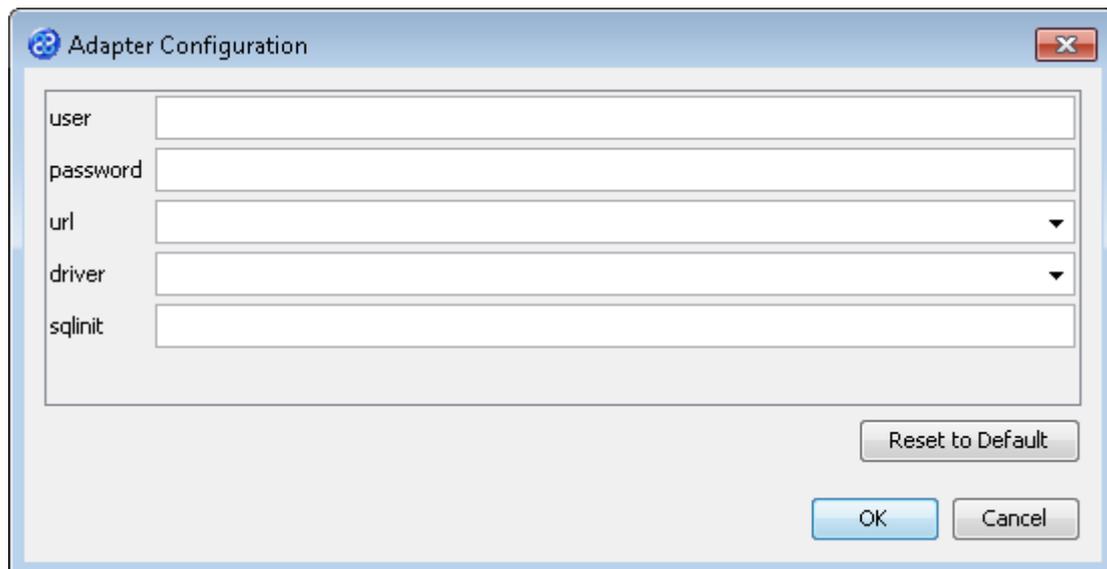
Exercise 7 - View the Target Data

Now let's check our target data store to see if our data has been transformed as expected. We will connect and look at the two files or elements that we have created.

- 1) With the Editor pane still open, move the cursor over the name of the data model in the **Transform Target** pane and display the context menu for the data model.



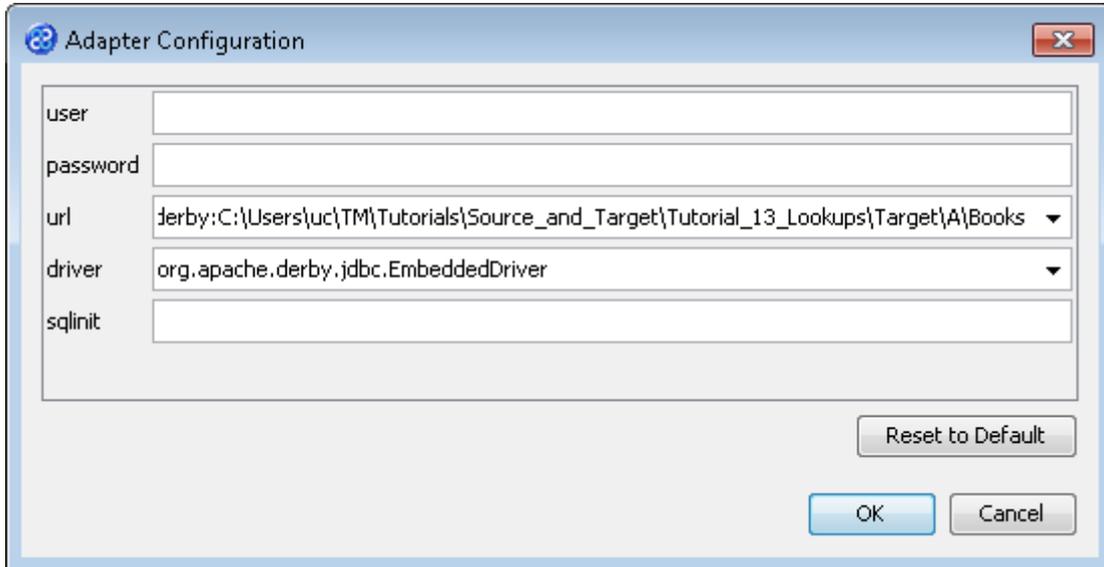
- 2) Select the **Connect...** option from the menu. The Adapter Configuration window will open ready for the connection details to be entered for the target data store. Note that we will be connecting to two elements in two separate files therefore we need to provide the destination for both files.



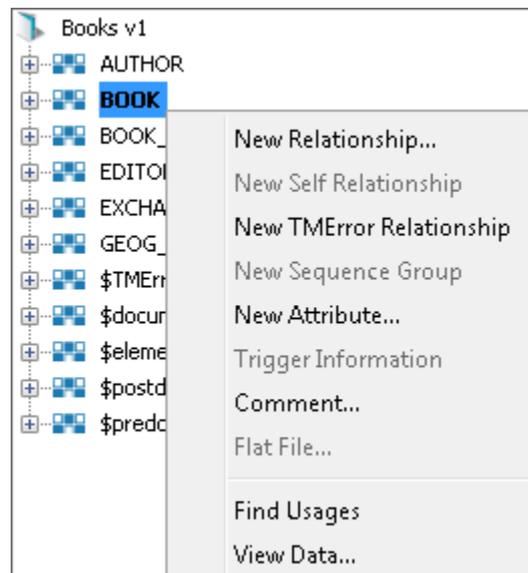
- 3) Go to the **url** field. You will now need to provide the details of where to go to connect to the source data. View the list of options and select the option called **jdbc:derby:<YOUR_NAME>** from the drop down list. Now replace the **<YOUR_NAME>** part of the list item, including the angle brackets with the directory where the Derby database is stored. This will be in the following location.

[TMHOME]\Tutorials\Source_and_Target\Tutorial_13_Lookups\Target\A\Books

- 4) Go to the driver field and display the list of options available. Select the option called **org.apache.derby.jdbc.EmbeddedDriver**. The New Project Configuration window will look similar to the image below. **user**, **password** and **sqlinit** do not require values.
- 5) The adapter configuration should look similar to the one below.



- 6) Click the **OK** button to connect to the data store. A message box will appear telling you that the connection is being made.
- 7) Move your cursor over the **BOOK** element in the data model and display the context menu for the element.



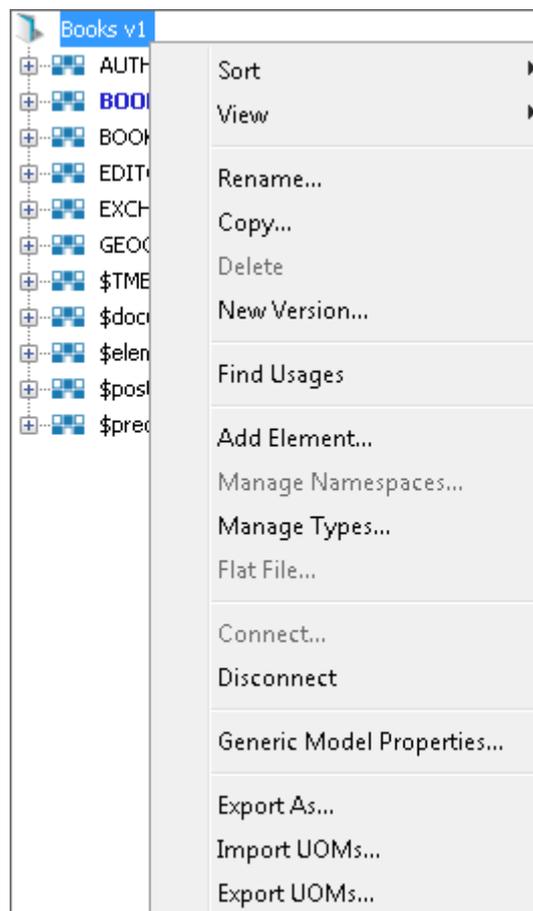
- 8) Select the **View Data...** option from the menu. This will open a new pane in the Editor pane displaying the writer data as shown below.

Books v1 : BOOK ⌵

CURRENCY	ID	PRICE	EDITOR_ID	IS_FICTION	PUBLISHED_DATE	TITLE
GBP	111	20	2001	Y	1999-01-06	Grass
USD	222	30	2001	Y	2002-01-09	Trees
USD	333	40	2002	N	1900-01-03	Soil
GBP	444	50		Y	1965-01-12	Soot
GBP	682	55				Rope
NA	683	63				Twine
GBP	684	32				String
USD	685	21				Wool

Hide empty columns
 Rows 8
Maximum Rows
Refresh

- 9) In this example we can see that the CURRENCY column which has been updated with GBP and USD. Note also that one of the records has a CURRENCY value of NA, our default value which we specified in the lookup. The target data store had data already present in it. These are the records Grass, Trees, Soil and Soot which have also been updated.
- 10) Let's close the data pane and disconnect from the data store. Click on the ⌵ icon to close the data view pane.
- 11) Now move the cursor over the name of the data model in the **Transform Target** pane again and display the context menu for the data model.

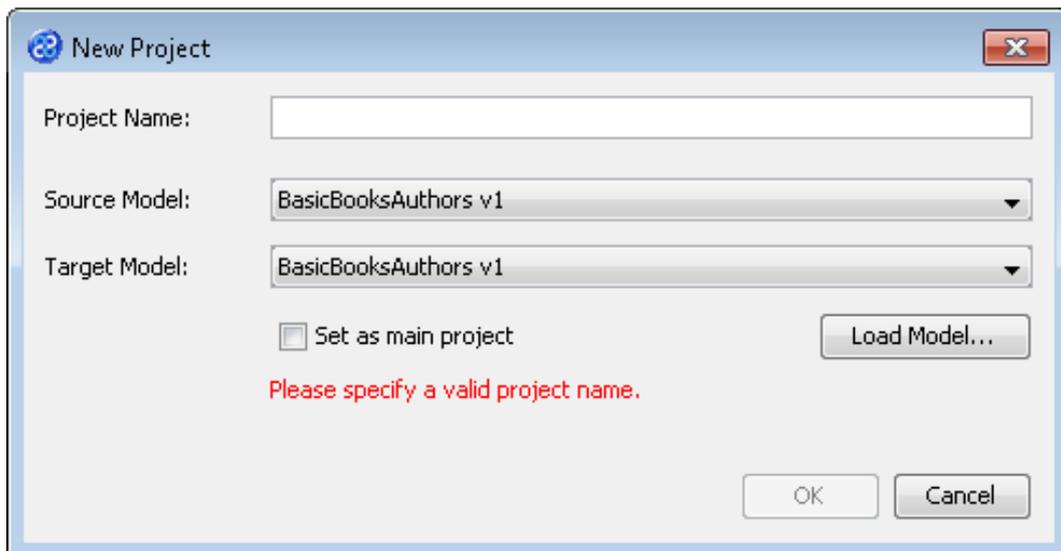


- 12) Note that the **Disconnect** option is active now. Click on this to disconnect from the data store.

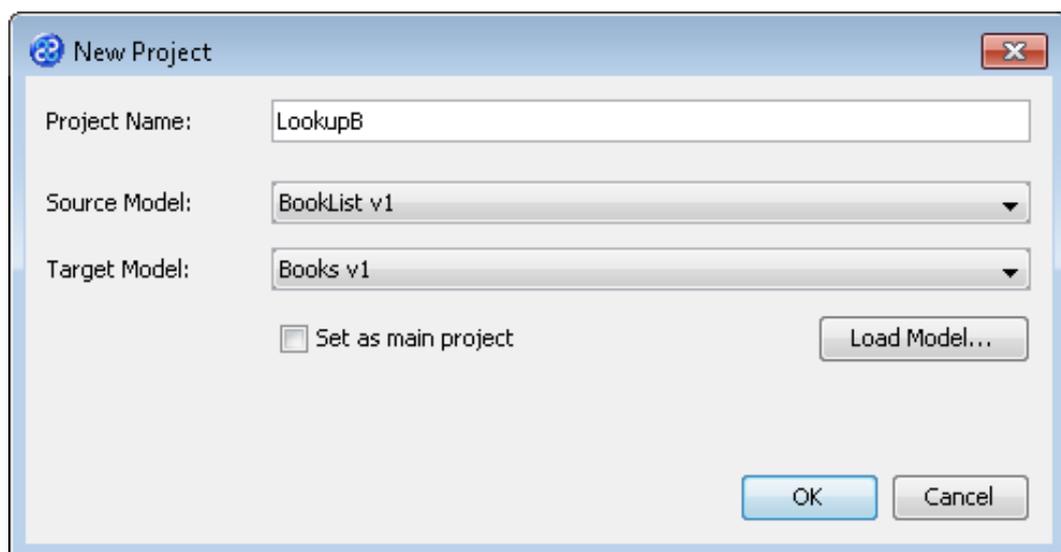
Exercise 8 - Create the LookupB Project

This exercise creates a new project where we will use a Derby relational database data model called **Books v1** and a flat file data model called **BookList v1**. We will be using a new lookup called **myCurrency** created in the previous project. This project also requires a dependent transform which will be used to only create authors if there is a valid currency.

- 1) Using your mouse click on the **File** option from the menu bar of TM Designer.
- 2) From the menu, click once on the **New Project...** option. The **New Project** window will open.



- 3) In the **Project Name** field we will provide a name for the project. Let's call our project **LookupB** by typing the name into the field.
- 4) Now we must select the target and source models for our project. In the **Source Model** field select **BookList v1** from the list. In the **Target Model** field select **Books v1**.

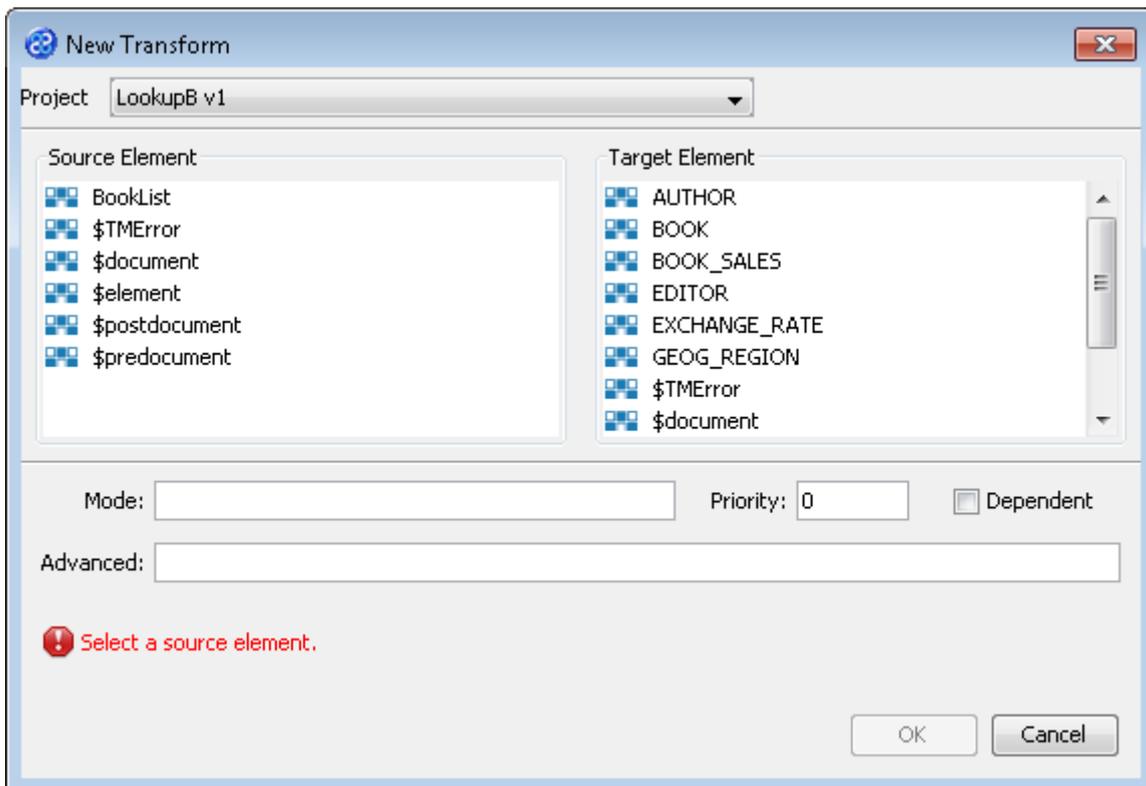


- 5) Now click once on the **OK** button. Your project will be created and be displayed in the **Projects** pane.

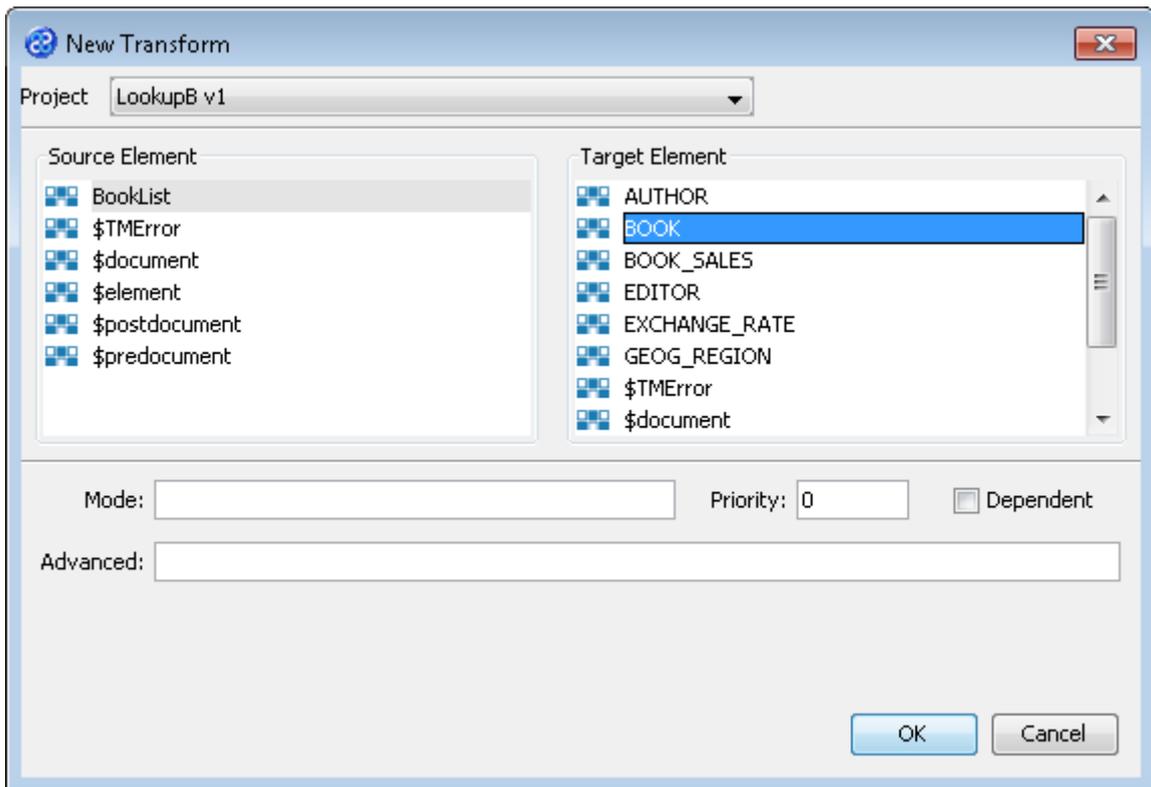
Exercise 9 - Create the Independent Transform for the LookupB Project

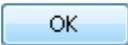
This exercise creates our transform. You will need to enable the [View](#) and [View Inverse Relationships](#) functionality to use the drag and drop functionality for the dependent transform.

- 1) Click once on the [File](#) menu bar option.
- 2) Click once on the [New Transform...](#) option from the sub-menu.
- 3) This will open the **New Transform** window. Ensure that you have the correct project selected in the **Project** drop down list, in our case this will be **LookupB v1**.



- 4) With the **New Transform** window open, we will select the elements for the source and target. In this case the source element will be **BookList** and the target element will be **BOOK**. The **New Transform** window will look like the one below.



- 5) Click once on the  button to create your new transform.
- 6) The Editor pane will open ready for you to write your transform code once the **New Transform** is created.
- 7) Now we will write our transform as shown below. You will see an error, , against the start of the line beginning with the **IF** statement because we have not yet defined our lookup.

```
TITLE := title;
<ID> := <id>;
PRICE := price;

--Only populate the currency if a currency exists.
--Also we will only create authors where
--a valid currency is found.

IF (NOT(myCurrency(currency) = 'N/A')) THEN
CURRENCY := myCurrency(currency);
--Cascade the transform to the AUTHOR.
iAUTHOR := self;
END_IF;
```

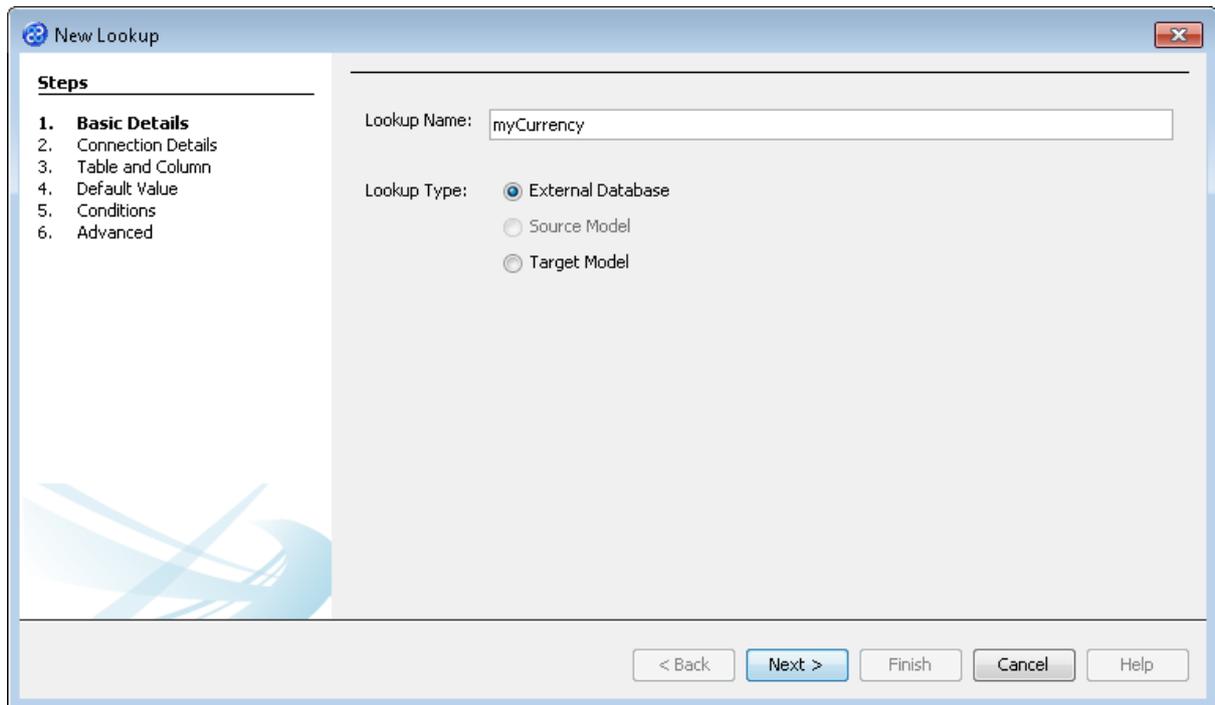
- 8) Click once on the **File** menu bar option.
- 9) Click once on the **Save** menu bar option to save your transform. Now let's create our lookup.

Exercise 10 - Create the Lookup for the Project Called LookupB

Now we will create our lookup called myCurrency.

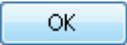
- 1) Place the mouse pointer over the name of the project called LookupB and display the context menu by using the right mouse or secondary mouse button.
- 2) Select the option called New Lookup... from the list of options displayed.
- 3) This will open the **New Lookup...** dialogue window.

- 4) Enter the name of the lookup into the **Lookup Name** field. This will be **myCurrency**.
- 5) Set the **Lookup Type** radio button to be **External Database** if it is not already selected. The first step of the dialogue should look like the image below.



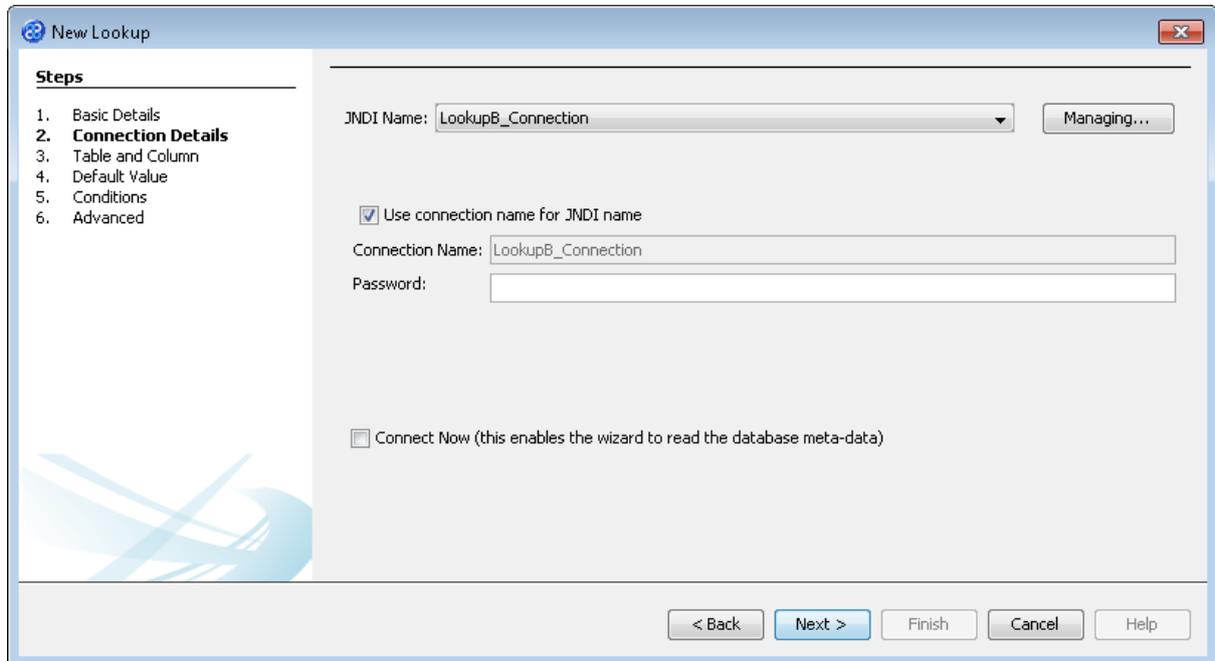
- 6) Click once on the **Next >** button to move to step 2, **Connection Details**. Notice that the connection alias we created for our previous project is selected. If the values for our lookup could use the same source then we could use this connection alias but we will be using a different target data store to get the values. Because of this we will create a new connection alias.
- 7) Click once on the button to open the **Manage Connection Aliases** window.
- 8) Click once on the button to add a new connection alias and open the **New Connection Alias** window where we will set the connection details. Enter the following details.
 - a) In **Name** field type **LookupB_Connection**.
 - b) Leave the **User** and **Password** fields blank.
 - c) In the **URL** field select the option **jdbc:derby:<YOUR_NAME>** from the list available and replace the **<YOUR_NAME>** part of the option with the location of the lookup source which will be in the following directory.

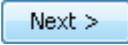
[TMHOME]\Tutorials\Source_and_Target\Tutorial_13_Lookups\Target\B\Lookup
 - d) In the **Driver** field select **org.apache.derby.jdbc.EmbeddedDriver** from the list of available options.
 - e) Leave the **SQL** field blank.
- 9) Click once on the **OK** button to add the new connection alias and return to the New Connection Alias window.

10) Click on the  button to return to the **New Lookup, Connection Details** page of the wizard.

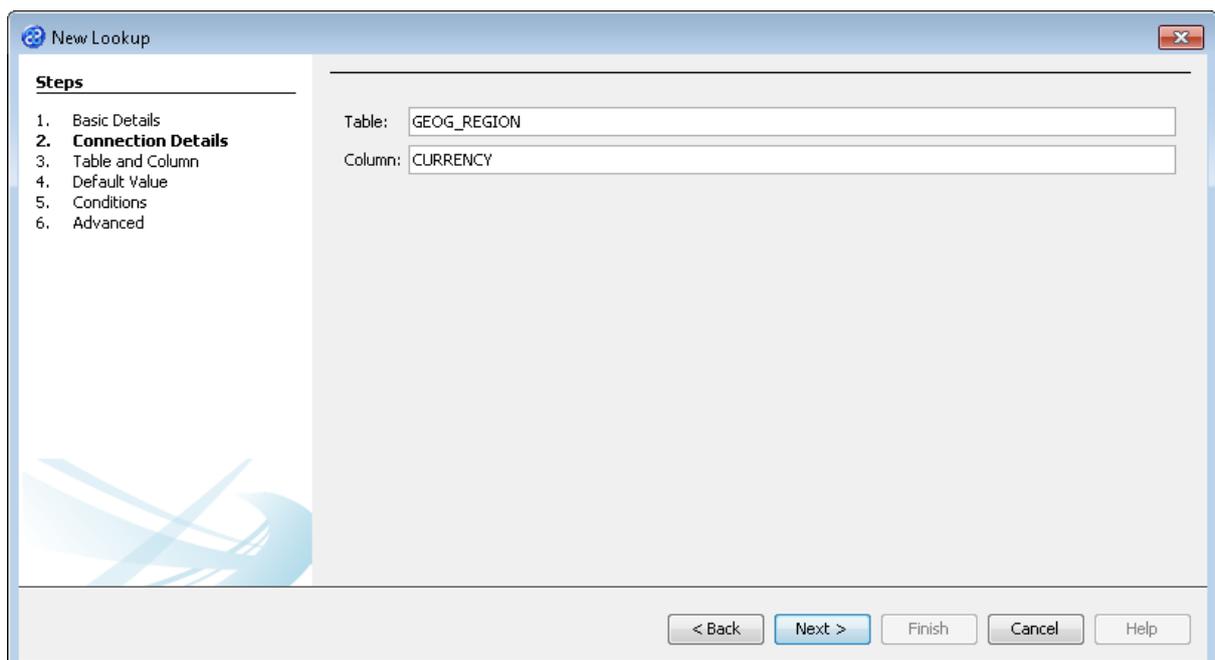
11) Select the **LookupB_Connection** from the drop down list in the JNDI Name field.

12) Check that there is a tick in the **Use connection name for JNDI name** and not a tick in the **Connect Now** tick box.

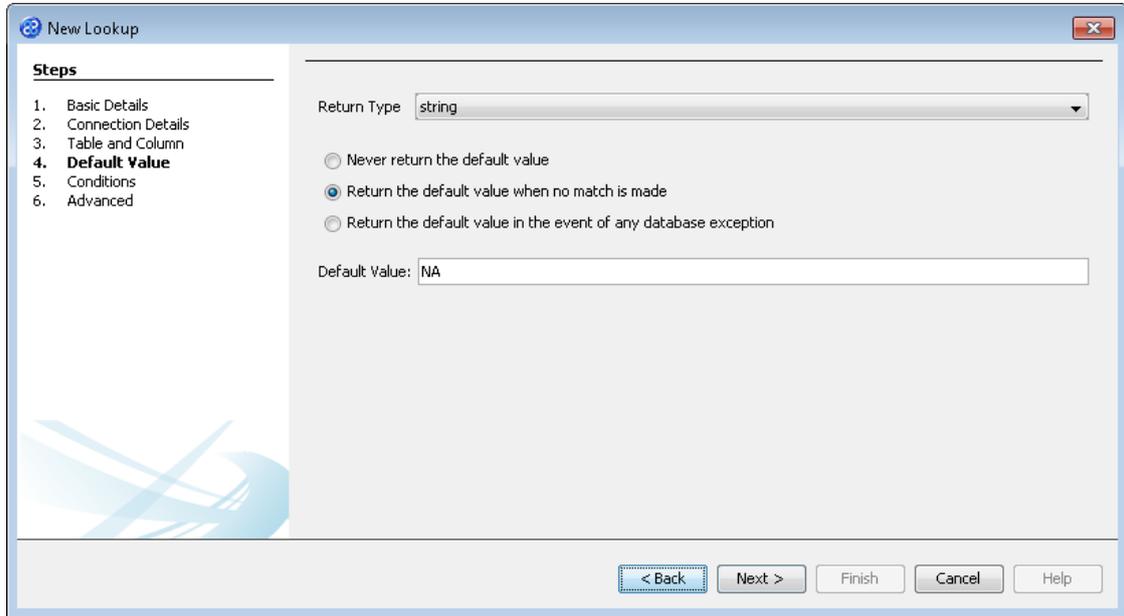


13) Click once on the  button to move to the Table and Column page of the New Lookup dialogue.

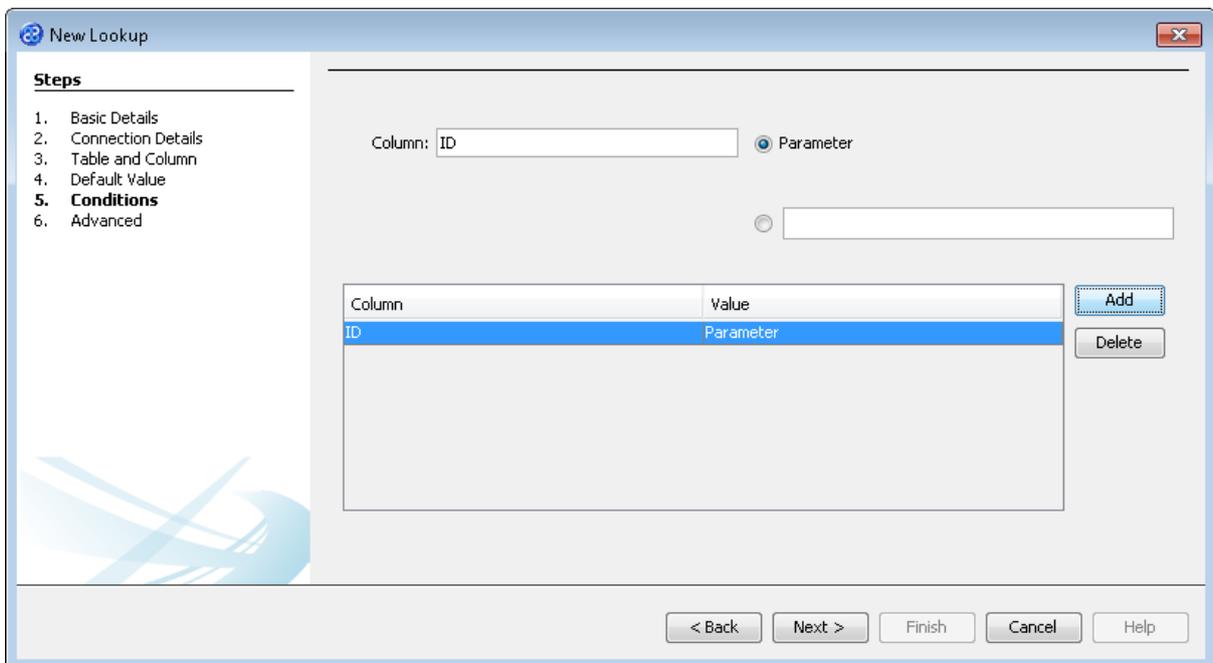
14) We will now specify the table and column values. Type into the entity or **Table** field **GEOG_REGION** and the attribute or **Column** field **CURRENCY**. The image below shows how step 3 should look.



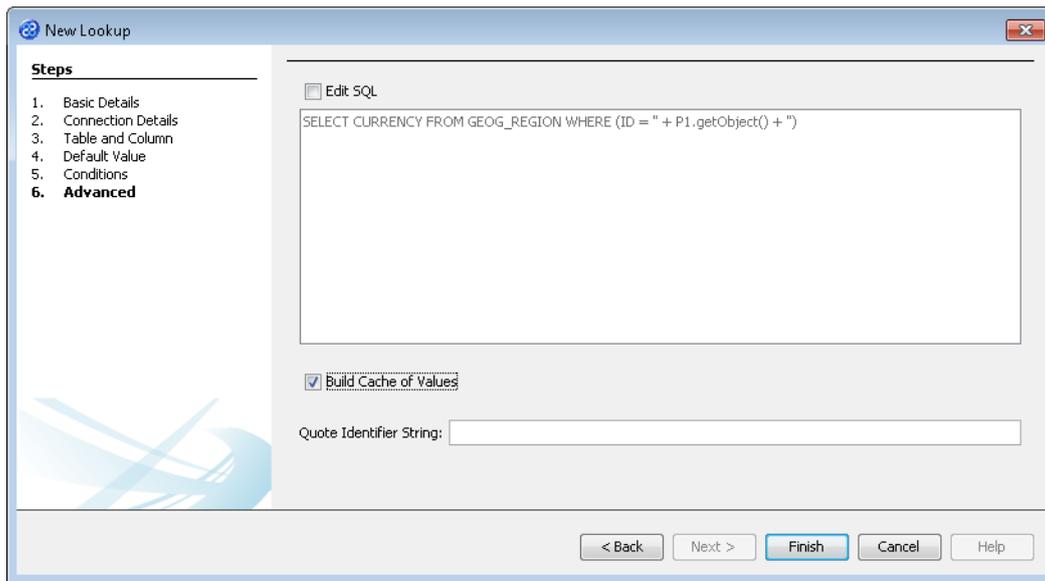
- 15) Click once on the **Next >** button to move to step 4, **Default Value**, for the **New Lookup** wizard. The default status of this step is **Never return the default value** but for our lookup we will set the radio button to **Return the default value when no match is made** and set the default value to be **NA** by typing this into the **Default Value** field. Check that the return type is set to **string**. This step should now look like the image below.



- 16) Click once on the **Next >** button to move to step 5, **Conditions**. In this step we will set a condition which is that the column **ID** will be a parameter. Now click once on the **Add** button to add the condition. This step should now look like the image below.



- 17) Click once on the **Next >** button to move to step 6, **Advanced**. Place a tick in the tick box called **Build Cache of Values**. Ignore all other fields on this page. The **Advanced** step will display different information depending on where the lookup values are coming from.

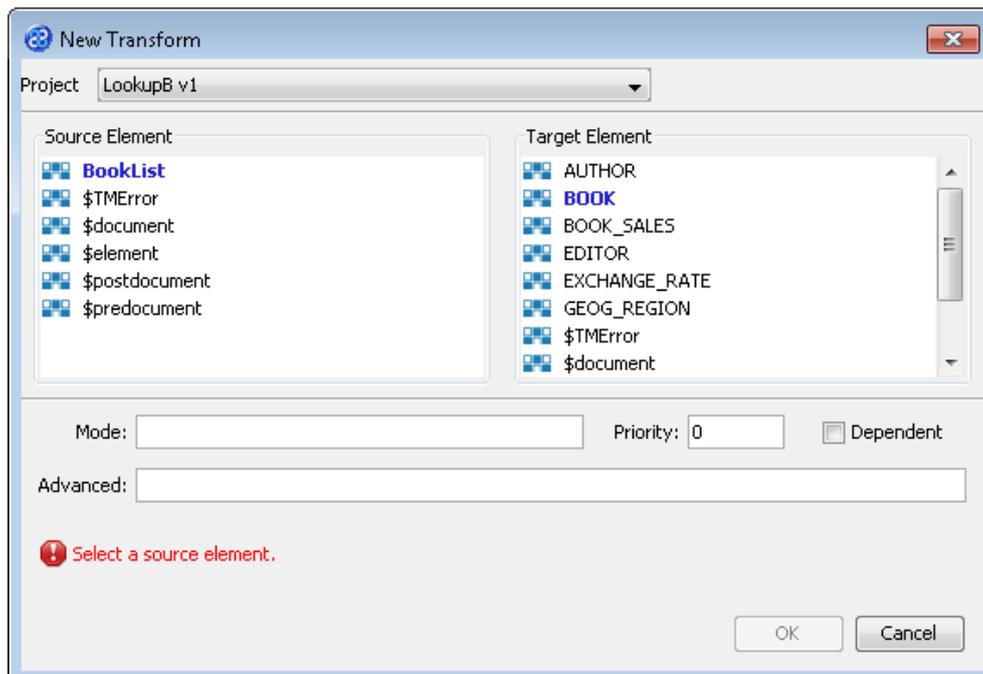


- 18) Click once on the **Finish** button to close the wizard and save your lookup. You may notice that the error icon, , has disappeared from our transform now that the lookup has been specified.

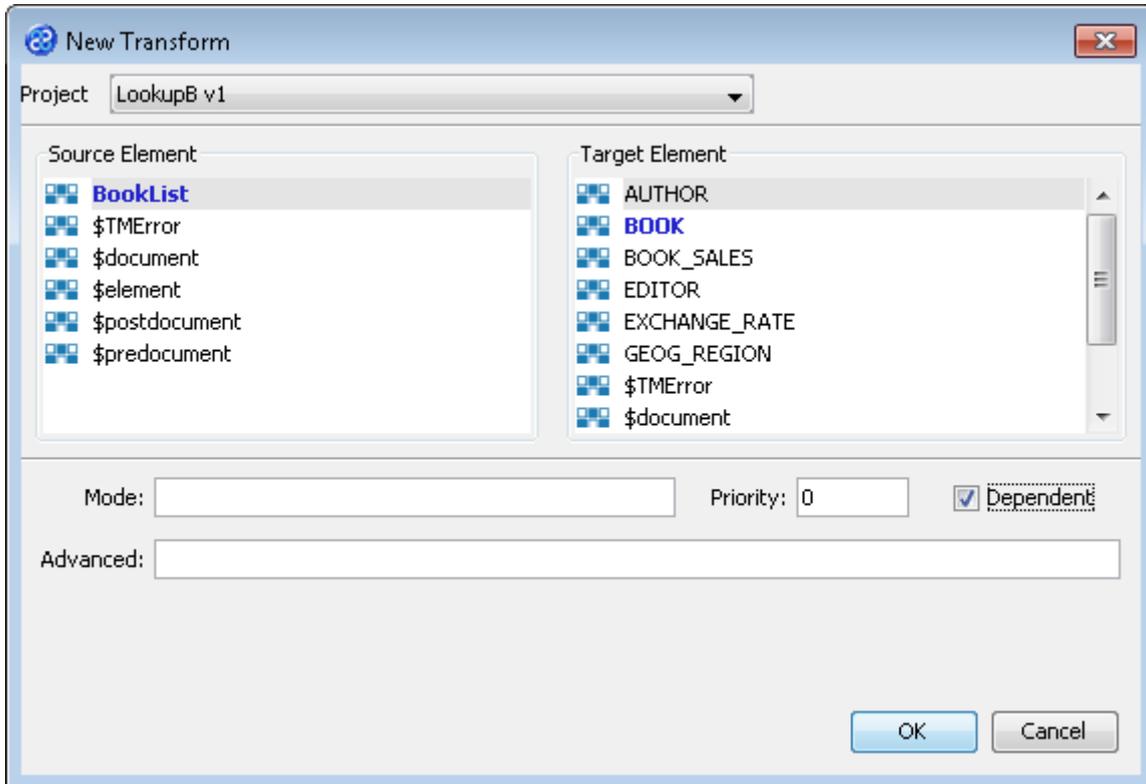
Exercise 11 - Add the Dependent Transform to Update the Author Information

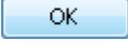
This exercise will add our dependent transform.

- 1) Click once on the **File** menu bar option.
- 2) Click once on the **New Transform...** option from the sub-menu.
- 3) This will open the **New Transform** window. Ensure that you have the correct project selected in the **Project** drop down list, in our case this will be **LookupB v1**.



- 4) With the **New Transform** window open, we will select the elements for the source and target. In this case the source element will be **BookList** and the target element will be **AUTHOR**. We must also ensure that the tick box called **Dependent** has a tick. The **New Transform** window will look like the one below.



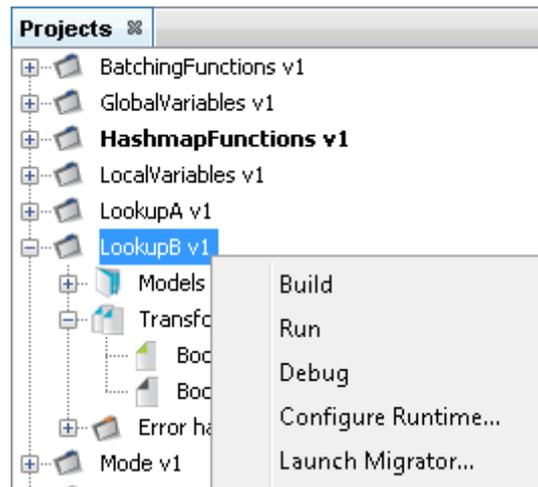
- 5) Click once on the  button to create your new transform.
- 6) The Editor pane will open ready for you to write your transform code once the **New Transform** is created.
- 7) Now we will write our transform.

```
NAME := <author forename>;  
SURNAME := <author surname>;
```
- 8) Click once on the **File** menu bar option.
- 9) Click once on the **Save** menu bar option to save your transform.

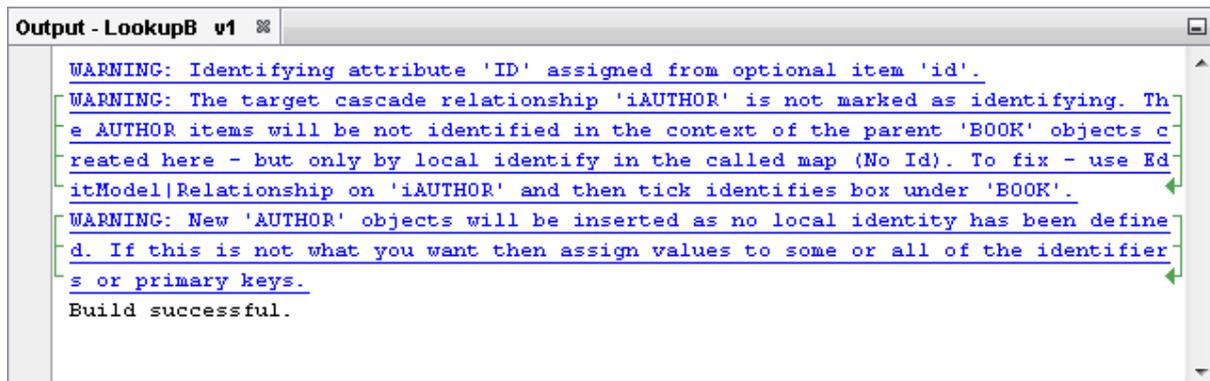
Exercise 12 - Build Your Lookup_B Project

Now we will build and test our lookup project.

- 1) Move your mouse pointer so that it is over the title of the project you are working on and use the right mouse or secondary mouse button to display the context menu.



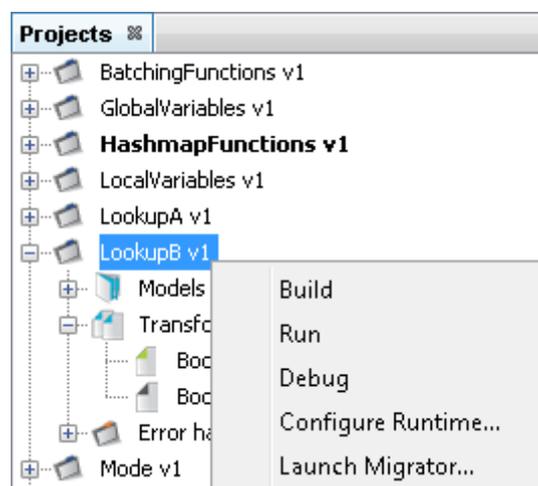
- 2) Click once on the **Build** option from the menu.
- 3) The **Output** pane will open and show you if there are any errors in your transform code. In this exercise you should not have any error messages and you should see a message stating **Build successful**.



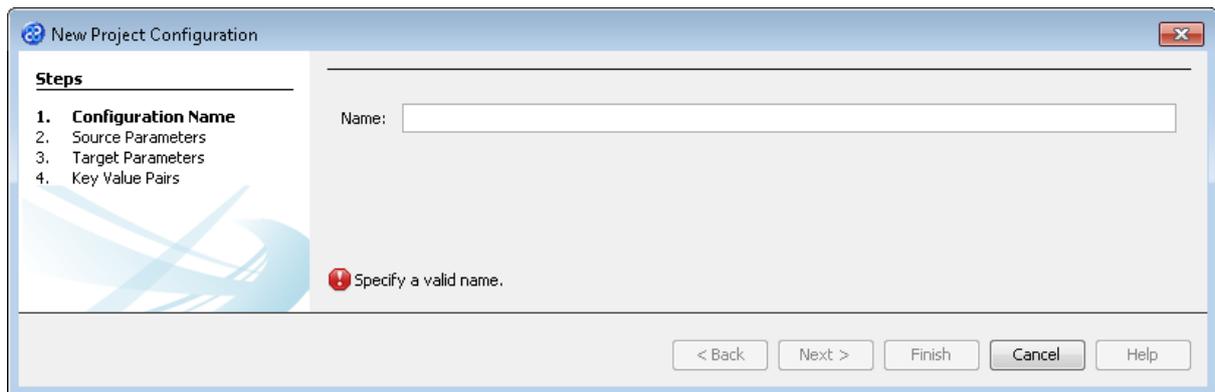
Exercise 13 - Run the Project

Now let's Run our transformation to see what results are produced. We will need to update the runtime configuration for this project.

- 1) Move your mouse pointer so that it is over the title of the project you are working on and use the right mouse or secondary mouse button to display the context menu.



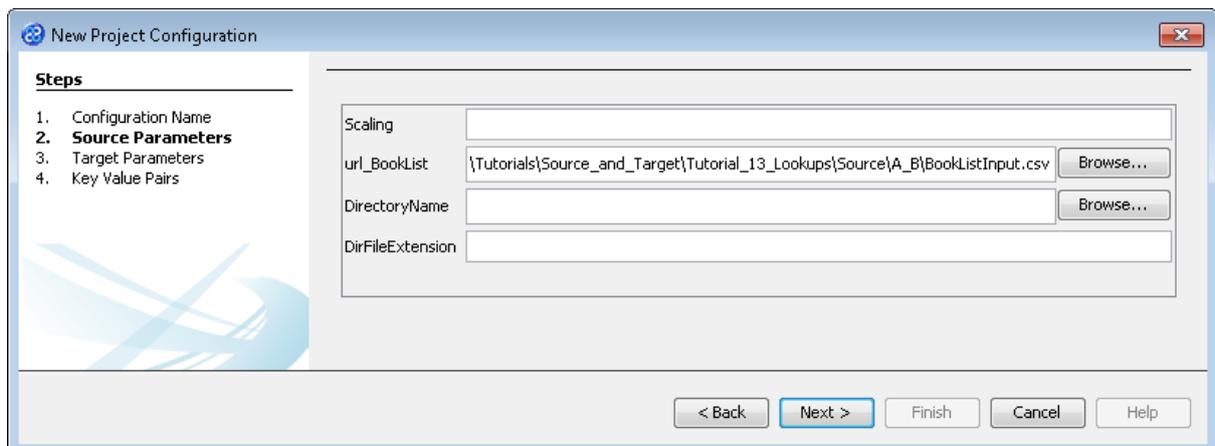
- Click the **Run** option from the menu. TM Designer will now open the New Project Configuration window where you will set the connection information for the project.



- Let's give this configuration the name Config1. Type **Config1** into the **Name** field.
- Click the **Next >** button to move to **Step 2. Source Parameters** where we will provide the details for the source data store connection.
- Go to the **url_BookList** field of the **Source** pane. In this field we will specify where to get our data store file. Enter the following into the field or you can use the button to select the file.

[TMHOME]\Tutorials\Source_and_Target\Tutorial_13_Lookups\Source\A_B\BookListInput.csv

- The **Source Parameters** step should look similar to the image below.

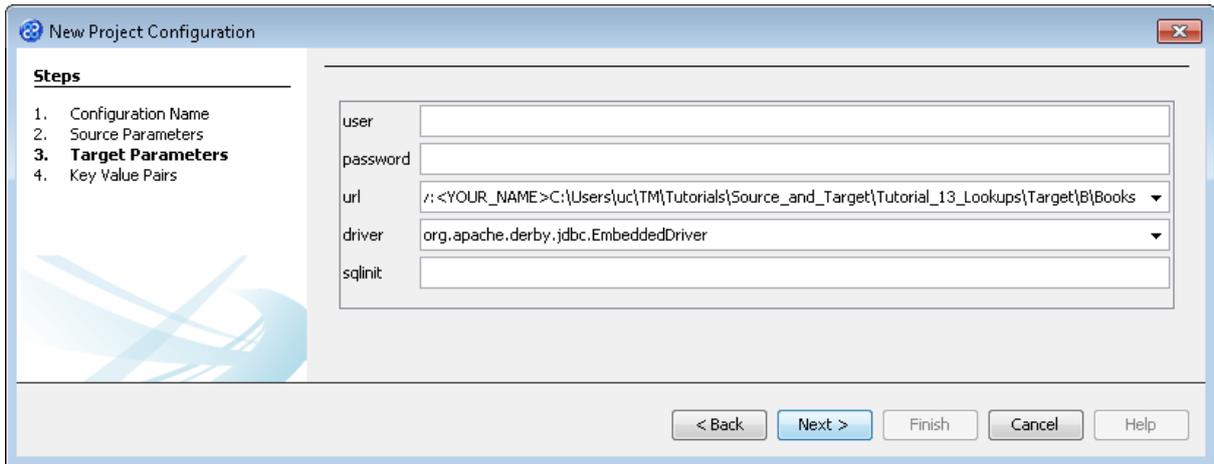


- Click the **Next >** button to move to **Step 3. Target Parameters** where we will provide the details for the target data store connection.
- Go to the **url** field. You will now need to provide the details of where to go to connect to the source data. View the list of options and select the option called **jdbc:derby:<YOUR_NAME>** from the drop down list. Now replace the **<YOUR_NAME>** part of the list item, including the angle brackets with the directory where the Derby database is stored. This will be in the following location.

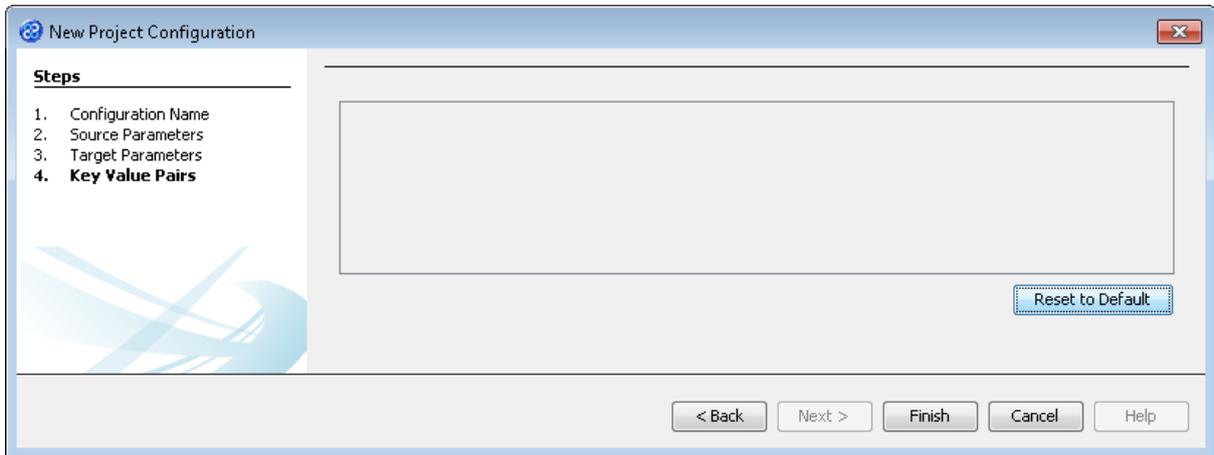
[TMHOME]\Tutorials\Source_and_Target\Tutorial_13_Lookups\Target\B\Books

- Go to the driver field and display the list of options available. Select the option called **org.apache.derby.jdbc.EmbeddedDriver**. The New Project Configuration window will look similar to the image below. **user**, **password** and **sqlinit** do not require values.

10) The **Target Parameters** step should look similar to the image below.

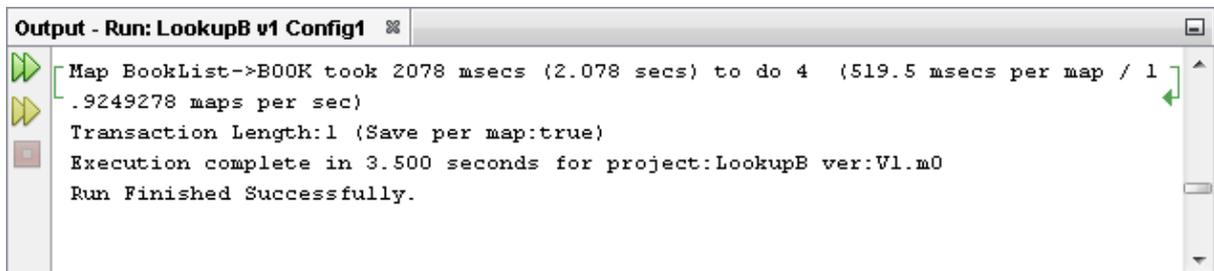


11) Click the **Next >** button to move to **Step 4. Key Value Pairs**. We do not need to specify any key value pairs in this exercise.



12) Click the **Finish** button to save the project configuration and to run the project within TM Designer. This performs the same execution as the **Launch Migrator...** option from the project context menu.

13) TM Designer will open the Output - Run pane with the results of running the project as shown below.

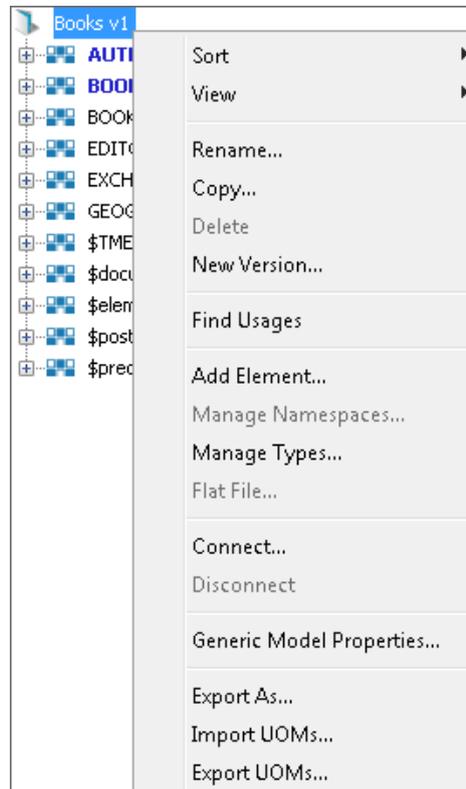


14) Let's now check the data using the **View Data...** functionality.

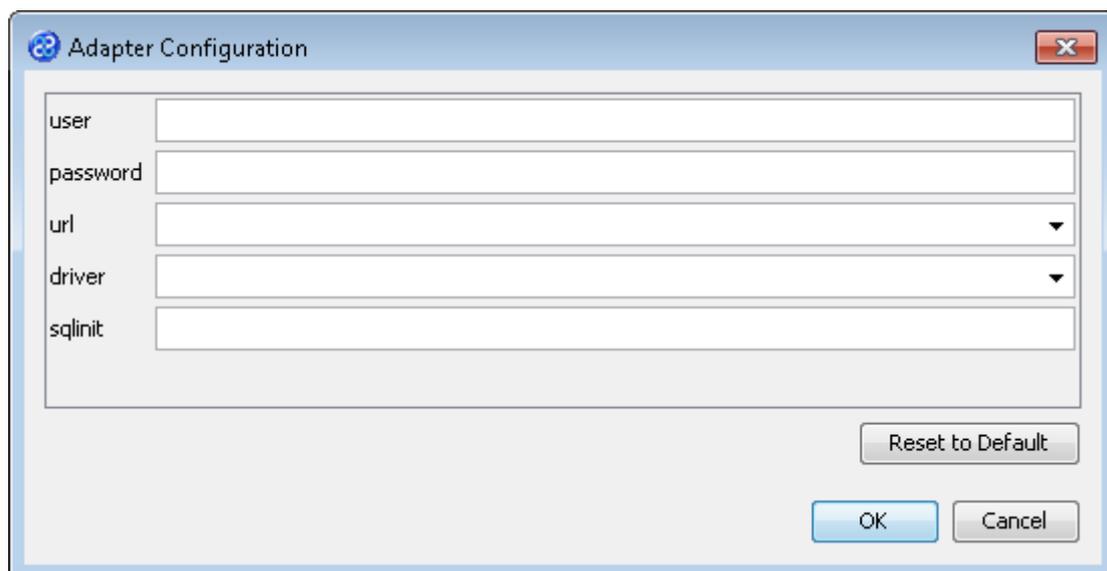
Exercise 14 - View the Target Data

Now let's check our target data store to see if our data has been transformed as expected. We will connect and look at the two files or elements that we have created.

- 1) With the Editor pane still open, move the cursor over the name of the data model in the **Transform Target** pane and display the context menu for the data model.



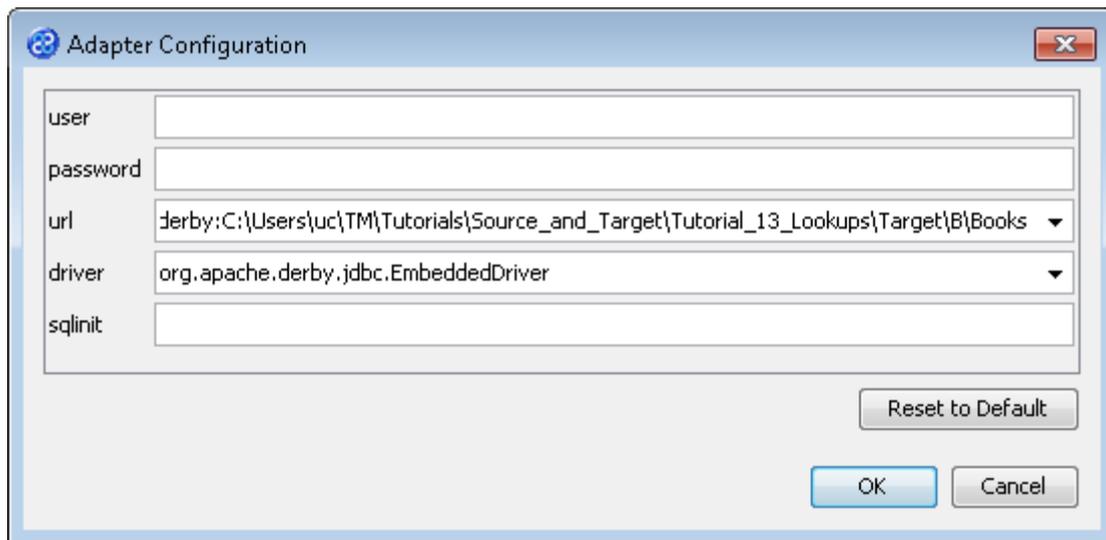
- 2) Select the **Connect...** option from the menu. The Adapter Configuration window will open ready for the connection details to be entered for the target data store. Note that we will be connecting to two elements in two separate files therefore we need to provide the destination for both files.

A screenshot of the 'Adapter Configuration' dialog box. The dialog has a title bar with a blue icon and the text 'Adapter Configuration'. It contains five input fields: 'user', 'password', 'url', 'driver', and 'sqlinit'. The 'url' and 'driver' fields have dropdown arrows. At the bottom right, there are three buttons: 'Reset to Default', 'OK', and 'Cancel'.

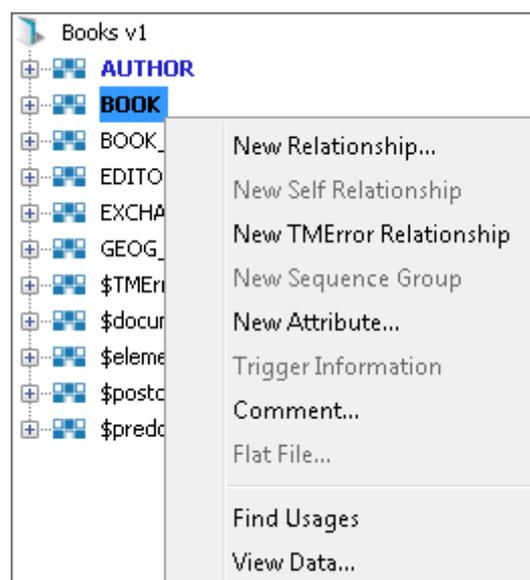
- 3) Go to the **url** field. You will now need to provide the details of where to go to connect to the source data. View the list of options and select the option called **jdbc:derby:<YOUR_NAME>** from the drop down list. Now replace the <YOUR_NAME> part of the list item, including the angle brackets with the directory where the Derby database is stored. This will be in the following location.

[TMHOME]\Tutorials\Source_and_Target\Tutorial_13_Lookups\Target\B\Books

- 4) Go to the driver field and display the list of options available. Select the option called **org.apache.derby.jdbc.EmbeddedDriver**. The New Project Configuration window will look similar to the image below. **user**, **password** and **sqlinit** do not require values.
- 5) The adapter configuration should look similar to the one below.



- 6) Click the **OK** button to connect to the data store. A message box will appear telling you that the connection is being made.
- 7) Move your cursor over the **BOOK** element in the data model and display the context menu for the element.



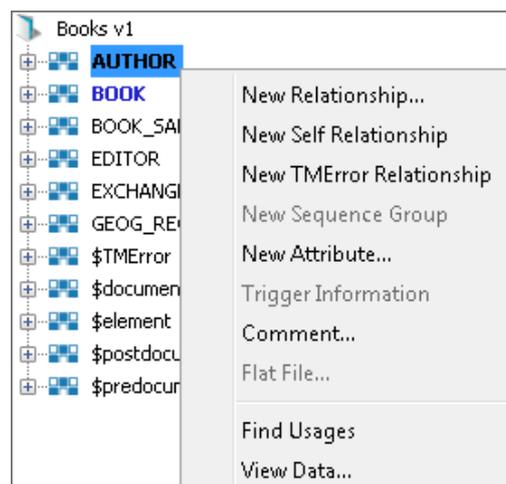
- 8) Select the **View Data...** option from the menu. This will open a new pane in the Editor pane displaying the writer data as shown below.

Books v1 : BOOK

CURRENCY	ID	PRICE	EDITOR_ID	IS_FICTION	PUBLISHED_DATE	TITLE
GBP	111	20	2001	Y	1999-01-06	Grass
USD	222	30	2001	Y	2002-01-09	Trees
USD	333	40	2002	N	1900-01-03	Soil
GBP	444	50		Y	1965-01-12	Soot
GBP	682	55				Rope
NA	683	63				Twine
GBP	684	32				String
USD	685	21				Wool

Hide empty columns Rows 8 Maximum Rows 200 Refresh

- 9) Move your cursor over the **AUTHOR** element in the data model and display the context menu for the element.



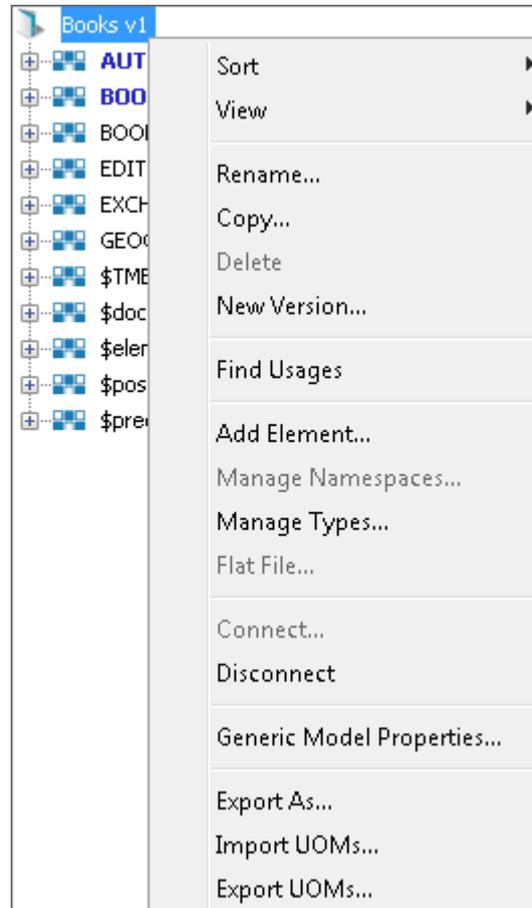
- 10) Select the **View Data...** option from the menu. This will open a new pane in the Editor pane displaying the writer data as shown below.

Books v1 : AUTHOR

BOOK_ID	NAME	SURNAME
111	Graham	Green
222	Graham	Green
222	Bill	Brown
333	Bill	Brown
444	Jed	Black
682	Ralph	Reigns
683	Tim	Day
684	Steven	Strong
685	Wayne	waylong

Hide empty columns Rows 9 Maximum Rows 200 Refresh

- 11) In this example we can see the changes made. The first table is for BOOK and the second table is AUTHOR which is now populated with the authors from our transform source data store.
- 12) Let's close the data panes and disconnect from the data store. Click on the  icon to close the data view pane.
- 13) Now move the cursor over the name of the data model in the **Transform Target** pane again and display the context menu for the data model.



- 14) Note that the **Disconnect** option is active now. Click on this to disconnect from the data store.