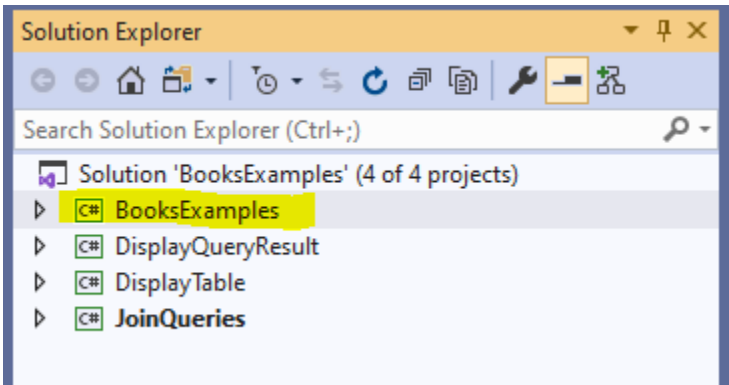
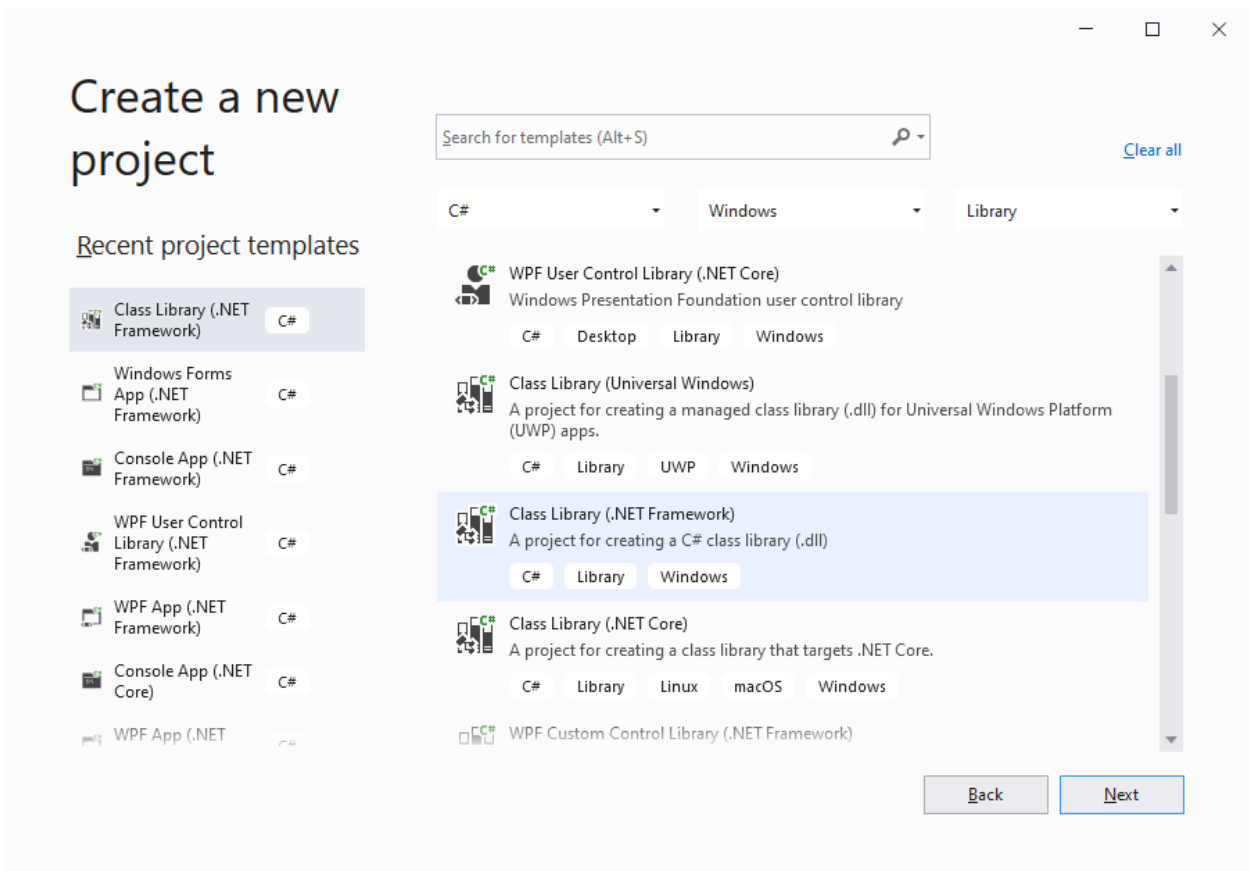


This tutorial is about creating Entity Data Model Library Project (BooksExamples)



1. Create a new Project by choosing the template as shown.



2. Choose appropriate names as shown.

Configure your new project

Class Library (.NET Framework) C# Library Windows

Project name
BooksExamples

Location
D:\COMP212\Sec002

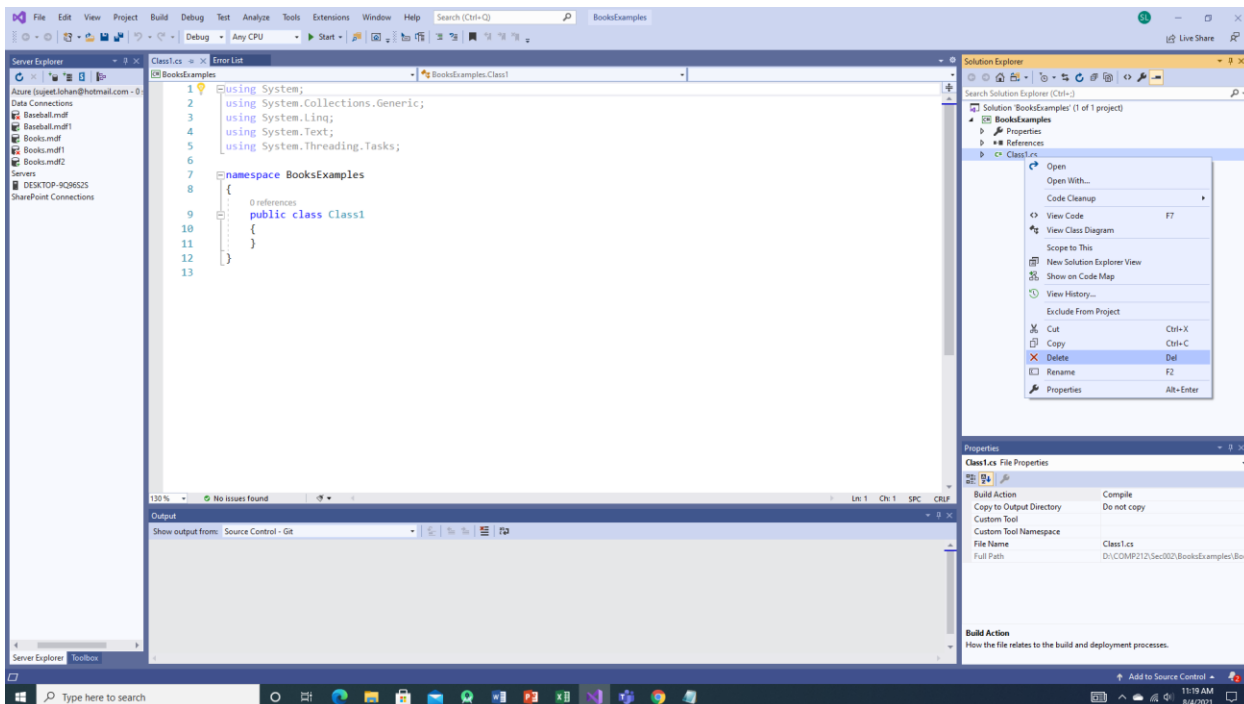
Solution name
BooksExamples

☐ Place solution and project in the same directory

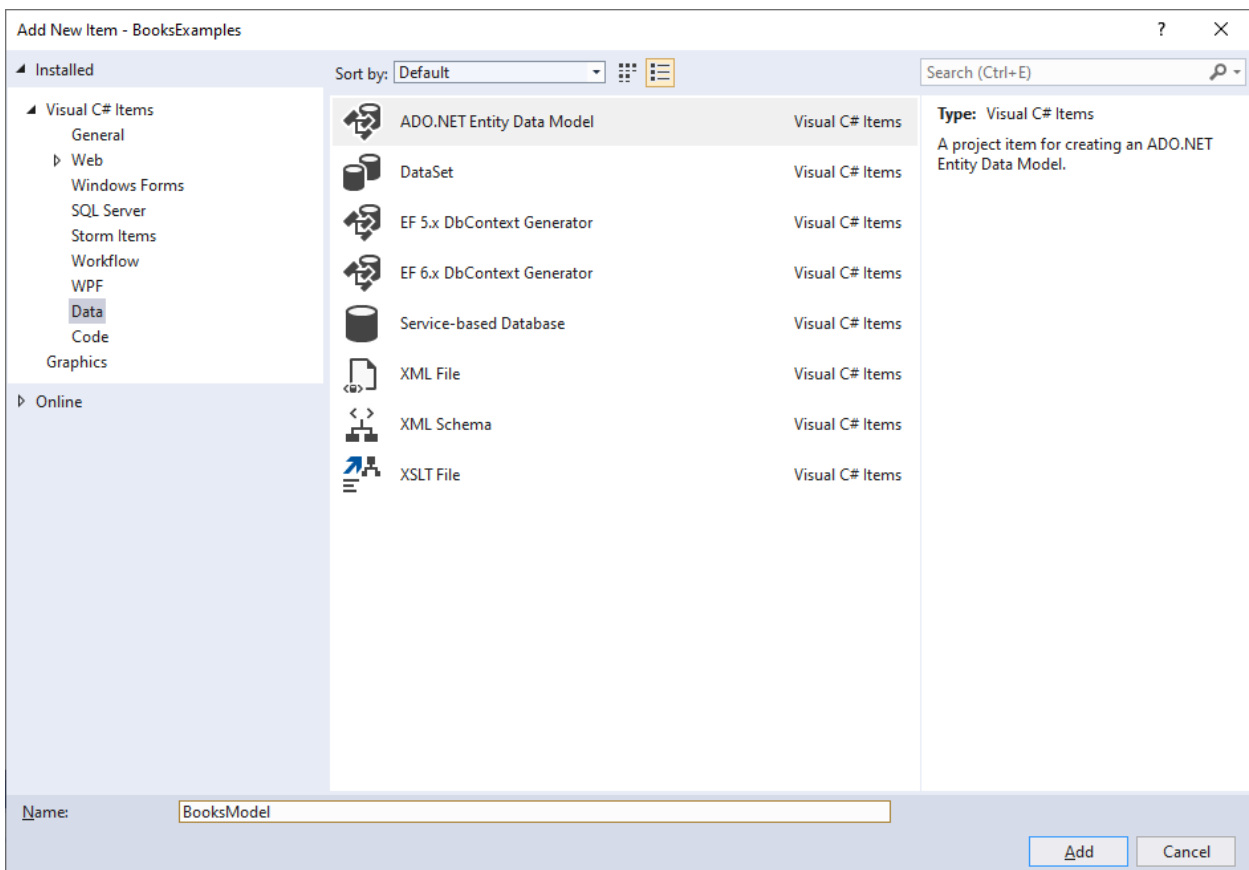
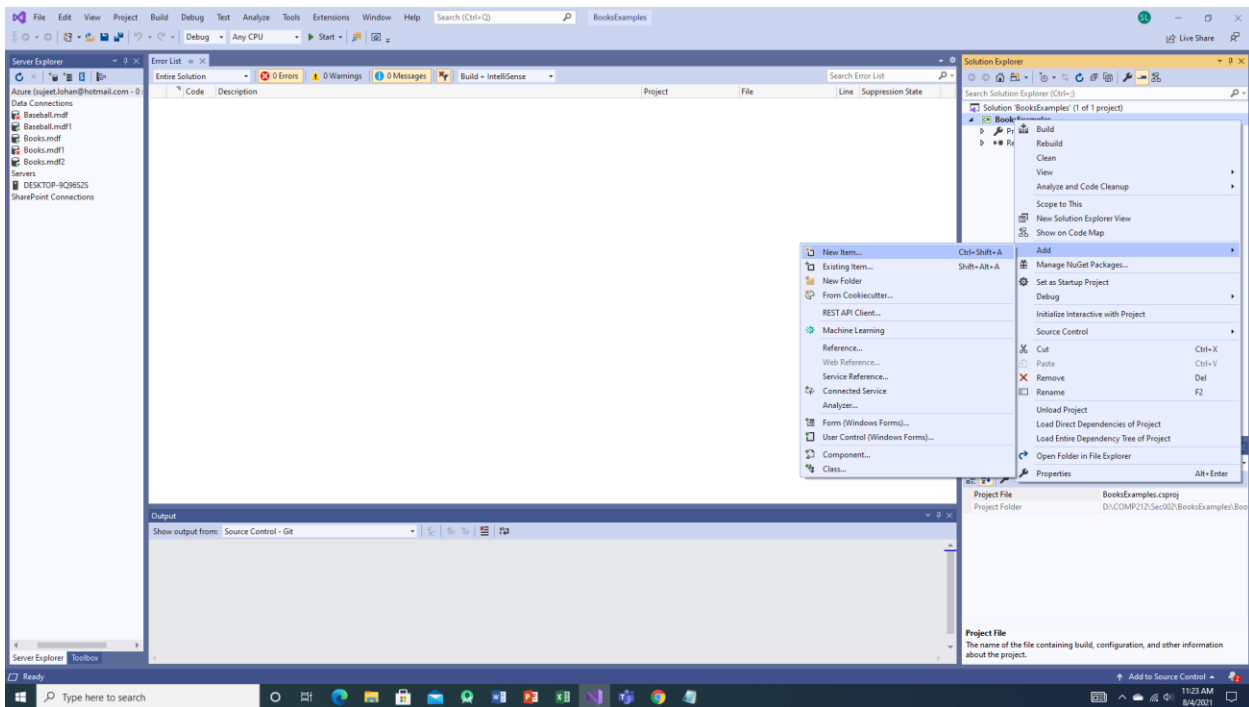
Framework
.NET Framework 4.7.2

Back Create

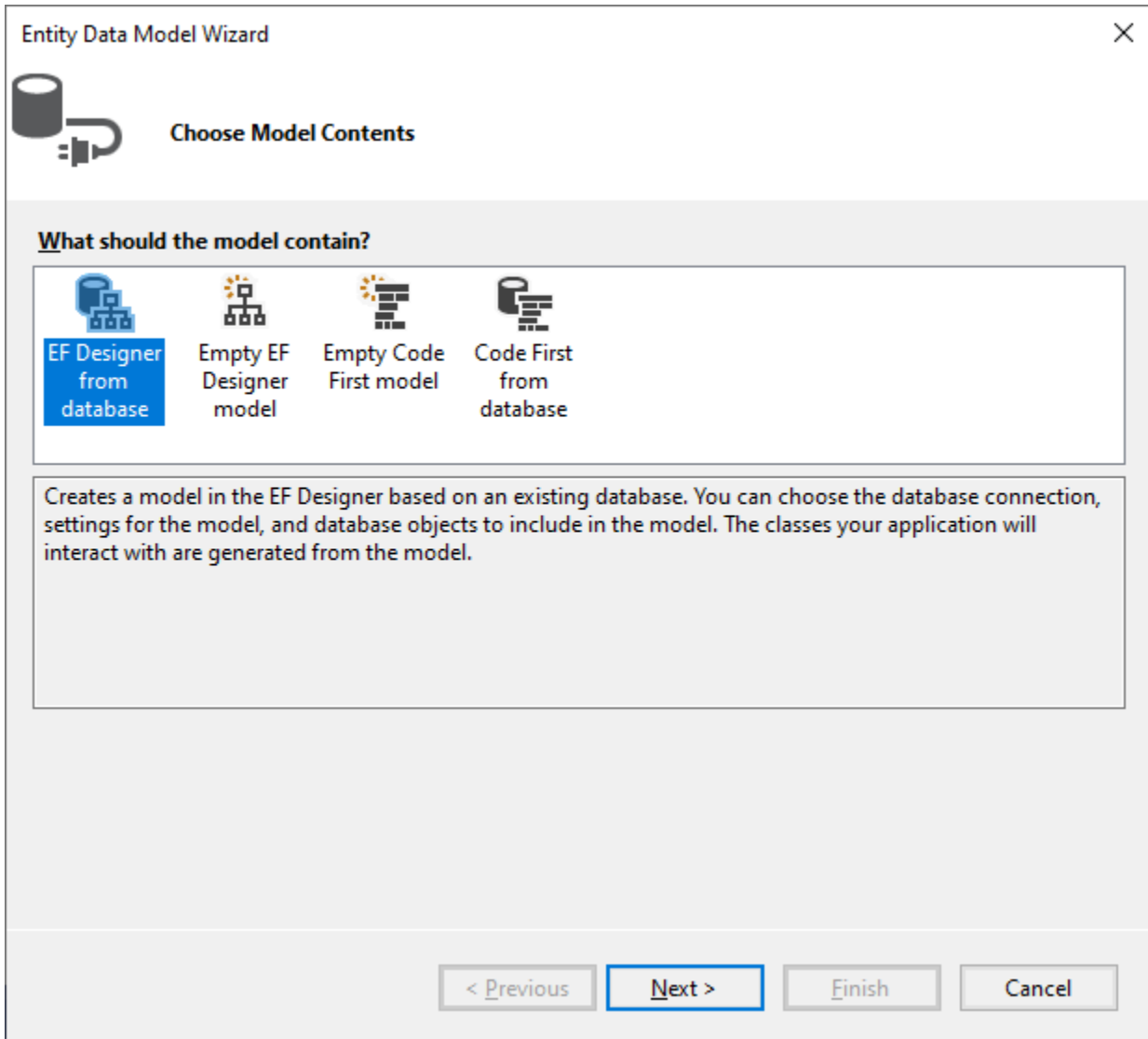
3. Delete the file – **class1.cs**



4. Add an ADO.NET Entity Data Model and name it **BooksModel** and click **Add**.



5. Choose the model type as shown and click **Next**.



The image shows the 'Entity Data Model Wizard' window, specifically the 'Choose Model Contents' step. The window has a title bar with the text 'Entity Data Model Wizard' and a close button (X). Below the title bar is a header area with a database cylinder icon and the text 'Choose Model Contents'. The main area is titled 'What should the model contain?' and contains four options, each with an icon and text: 'EF Designer from database' (highlighted with a blue border), 'Empty EF Designer model', 'Empty Code First model', and 'Code First from database'. Below these options is a descriptive text box for the selected option: 'Creates a model in the EF Designer based on an existing database. You can choose the database connection, settings for the model, and database objects to include in the model. The classes your application will interact with are generated from the model.' At the bottom of the window are four buttons: '< Previous', 'Next >' (highlighted with a blue border), 'Finish', and 'Cancel'.

Entity Data Model Wizard

Choose Model Contents

What should the model contain?

EF Designer from database

Empty EF Designer model

Empty Code First model

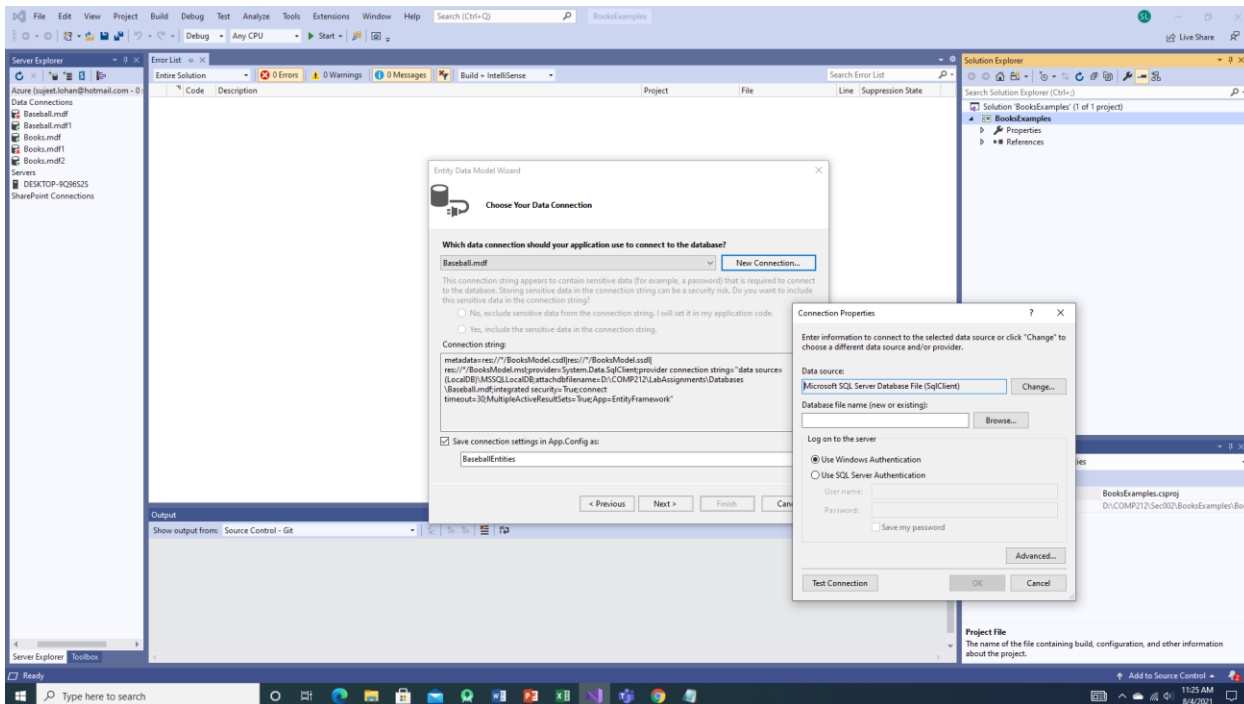
Code First from database

Creates a model in the EF Designer based on an existing database. You can choose the database connection, settings for the model, and database objects to include in the model. The classes your application will interact with are generated from the model.

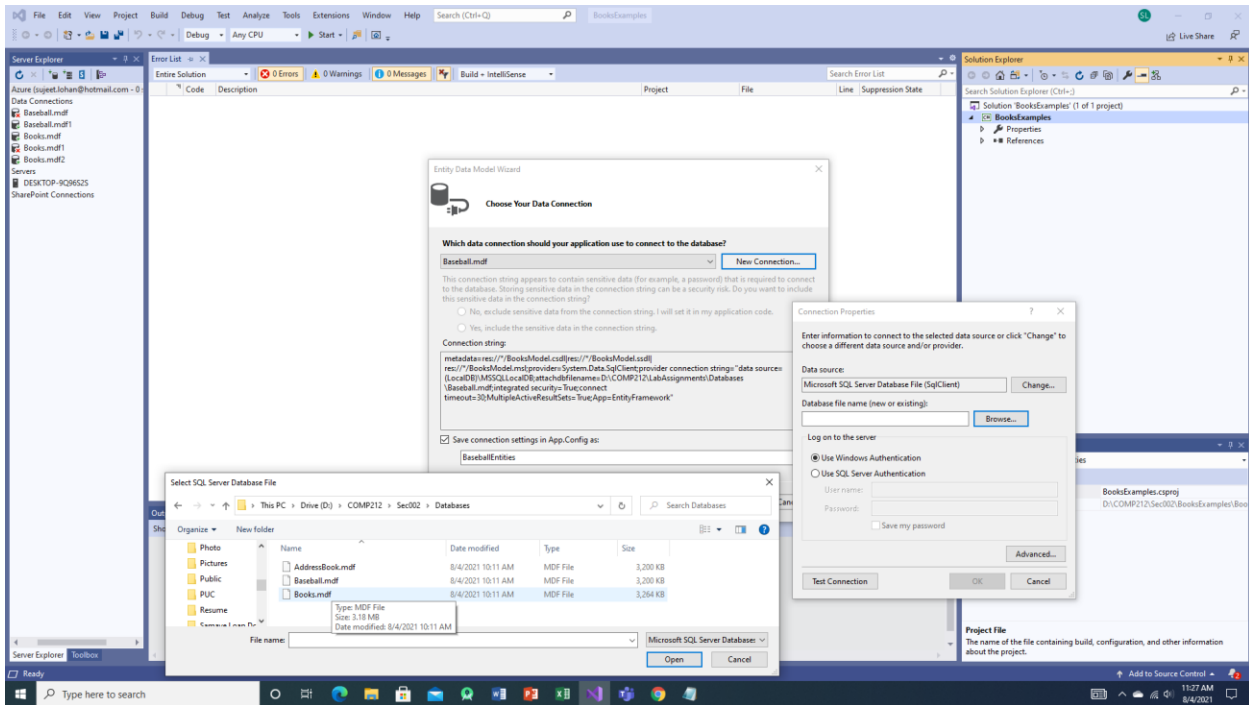
< Previous Next > Finish Cancel

Step 6: Click on the button **New Connection** and it will show you pop up – **Connection Properties**. From the **Data source** drop down choose the option – **Microsoft SQL Server Database File(SqlClient)** as shown below.

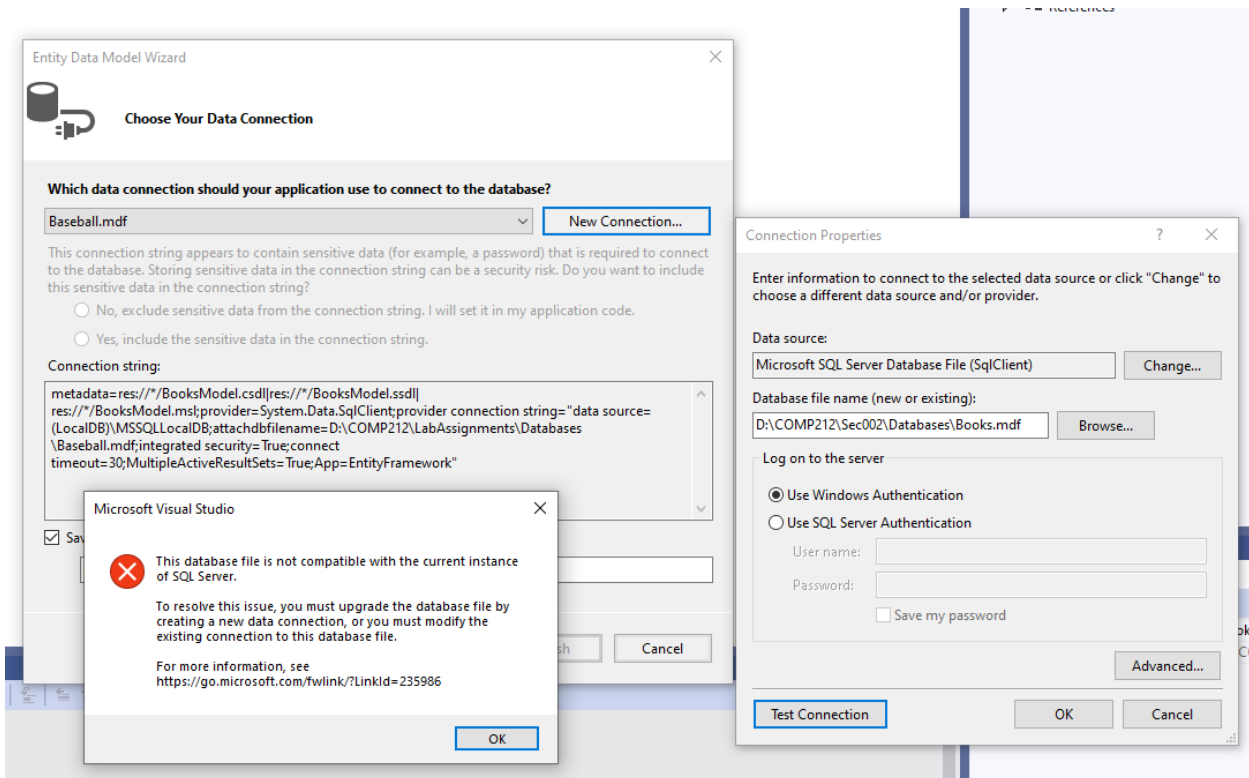
Click Browse and go to place where your book database is? (select **Books.mdf** file which is Databases folder, uploaded on D2L)



Click Browse and go to place where your book database is? (select **Books.mdf** file which is Databases folder, uploaded on D2L)

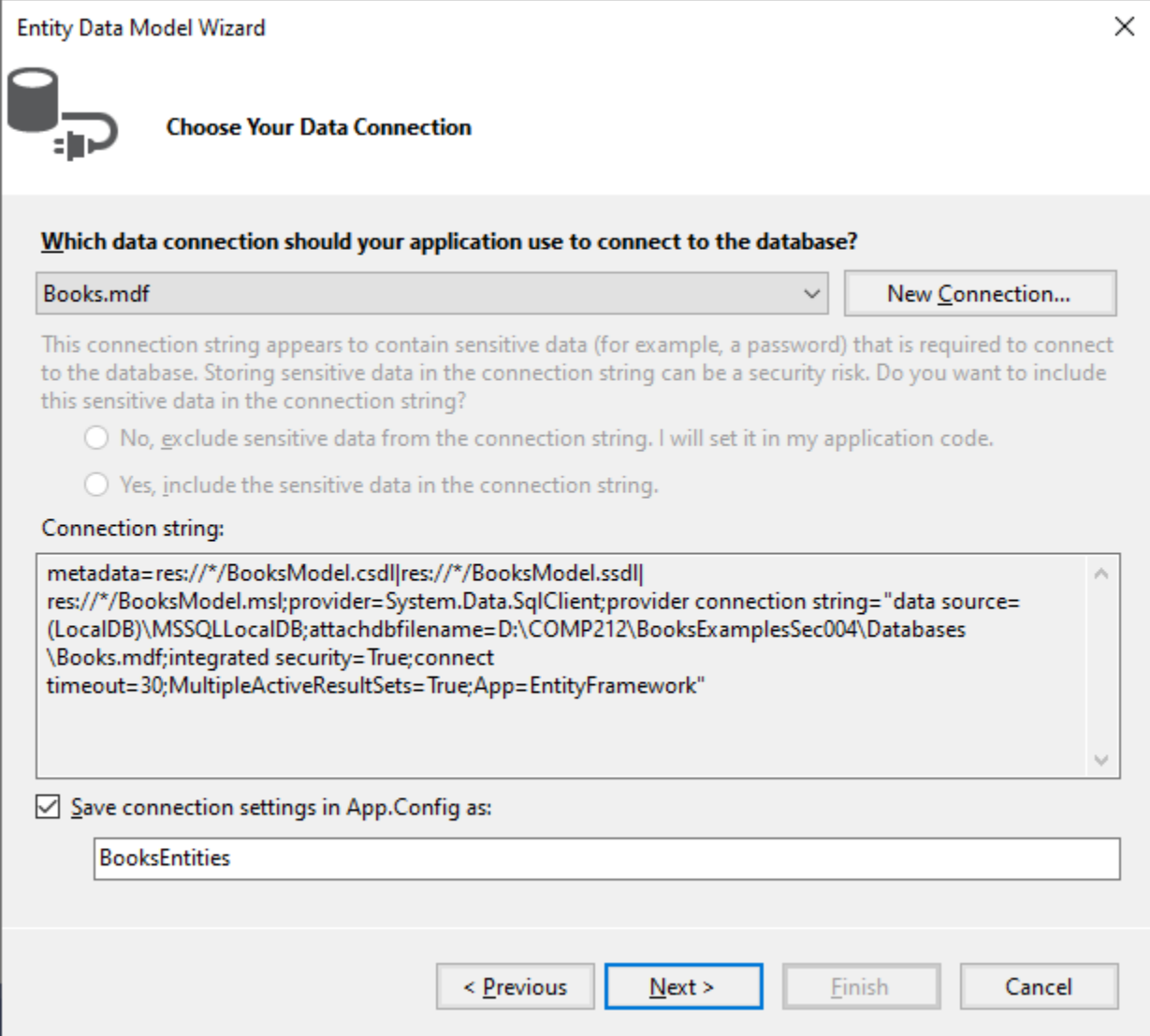


And hit the **Test Connection** button and if you see the error Message Box, then click **Ok** and choose the options as shown.



Click okay.

And then **Click** next.



The image shows the 'Entity Data Model Wizard' window, specifically the 'Choose Your Data Connection' step. The window has a title bar with a close button. Below the title bar is a header area with a database icon and the text 'Choose Your Data Connection'. The main content area is titled 'Which data connection should your application use to connect to the database?'. It features a dropdown menu with 'Books.mdf' selected and a 'New Connection...' button. Below this, a text box explains that the connection string contains sensitive data and asks if it should be included. There are two radio buttons: 'No, exclude sensitive data from the connection string. I will set it in my application code.' (selected) and 'Yes, include the sensitive data in the connection string.'. Below the radio buttons is a 'Connection string:' label and a text area containing the connection string: `metadata=res://*/BooksModel.csdl|res://*/BooksModel.ssdl|res://*/BooksModel.msl;provider=System.Data.SqlClient;provider connection string="data source=(LocalDB)\MSSQLLocalDB;attachdbfilename=D:\COMP212\BooksExamplesSec004\Databases\Books.mdf;integrated security=True;connect timeout=30;MultipleActiveResultSets=True;App=EntityFramework"`. Below the text area is a checkbox labeled 'Save connection settings in App.Config as:' which is checked, and a text box containing 'BooksEntities'. At the bottom are four buttons: '< Previous', 'Next >' (highlighted with a blue border), 'Finish', and 'Cancel'.

Entity Data Model Wizard

Choose Your Data Connection

Which data connection should your application use to connect to the database?

Books.mdf New Connection...

This connection string appears to contain sensitive data (for example, a password) that is required to connect to the database. Storing sensitive data in the connection string can be a security risk. Do you want to include this sensitive data in the connection string?

☐ No, exclude sensitive data from the connection string. I will set it in my application code.

☐ Yes, include the sensitive data in the connection string.

Connection string:

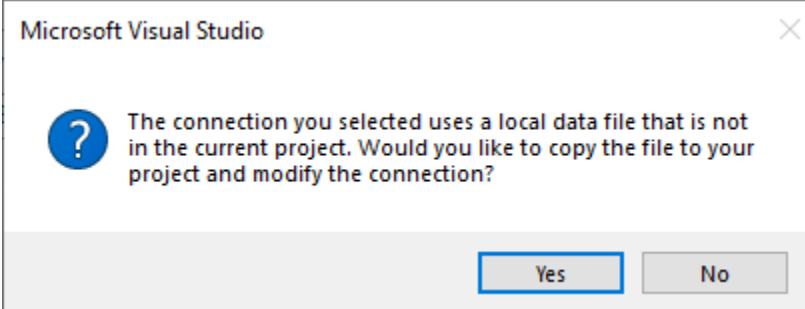
metadata=res://*/BooksModel.csdl|res://*/BooksModel.ssdl|
res://*/BooksModel.msl;provider=System.Data.SqlClient;provider connection string="data source=
(LocalDB)\MSSQLLocalDB;attachdbfilename=D:\COMP212\BooksExamplesSec004\Databases
\Books.mdf;integrated security=True;connect
timeout=30;MultipleActiveResultSets=True;App=EntityFramework"

☒ Save connection settings in App.Config as:

BooksEntities

< Previous Next > Finish Cancel

Click **Yes**, as we want to copy the database file **Books.mdf** to our project.



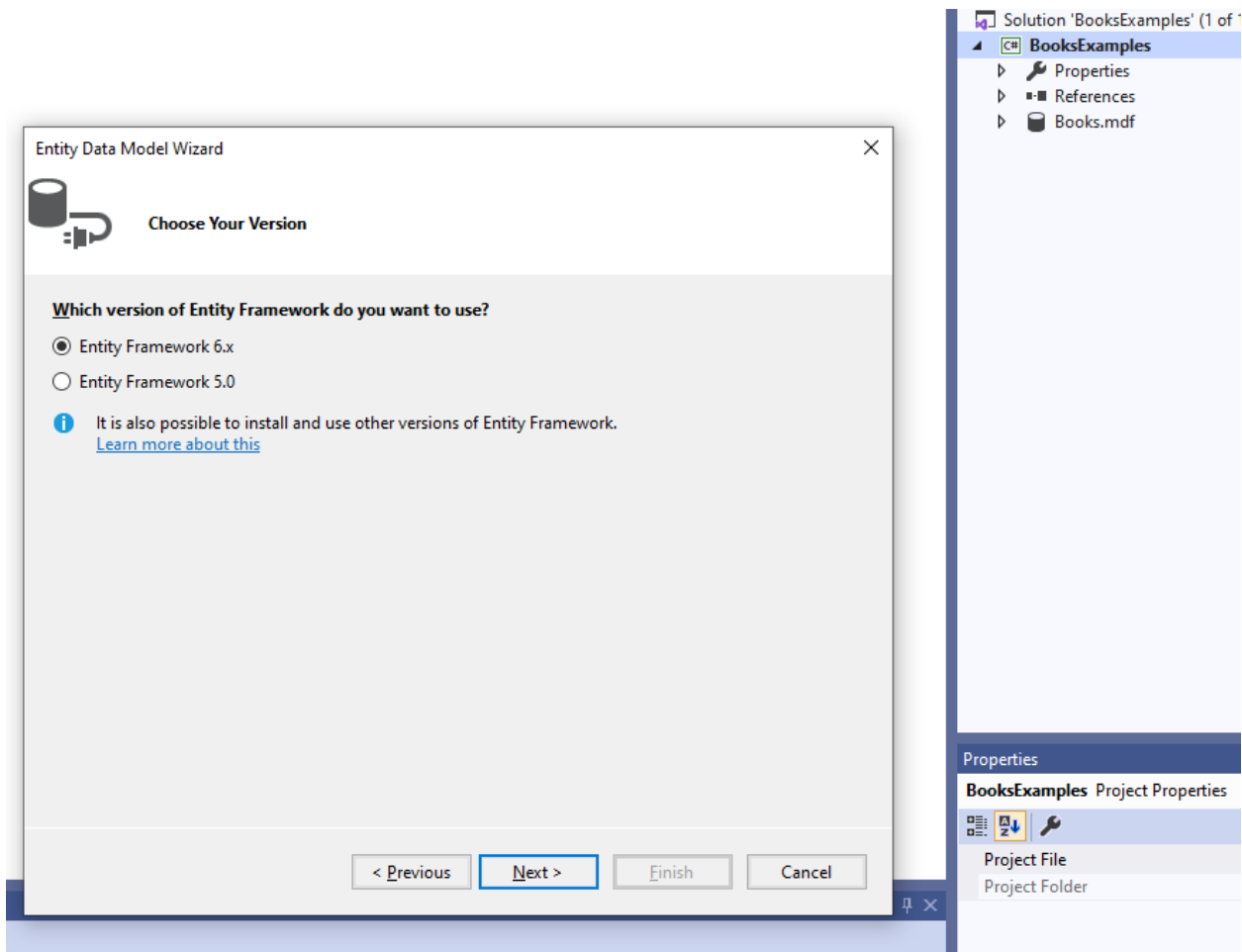
The image shows a 'Microsoft Visual Studio' dialog box with a question mark icon. The text inside says: 'The connection you selected uses a local data file that is not in the current project. Would you like to copy the file to your project and modify the connection?'. At the bottom are two buttons: 'Yes' (highlighted with a blue border) and 'No'.

Microsoft Visual Studio

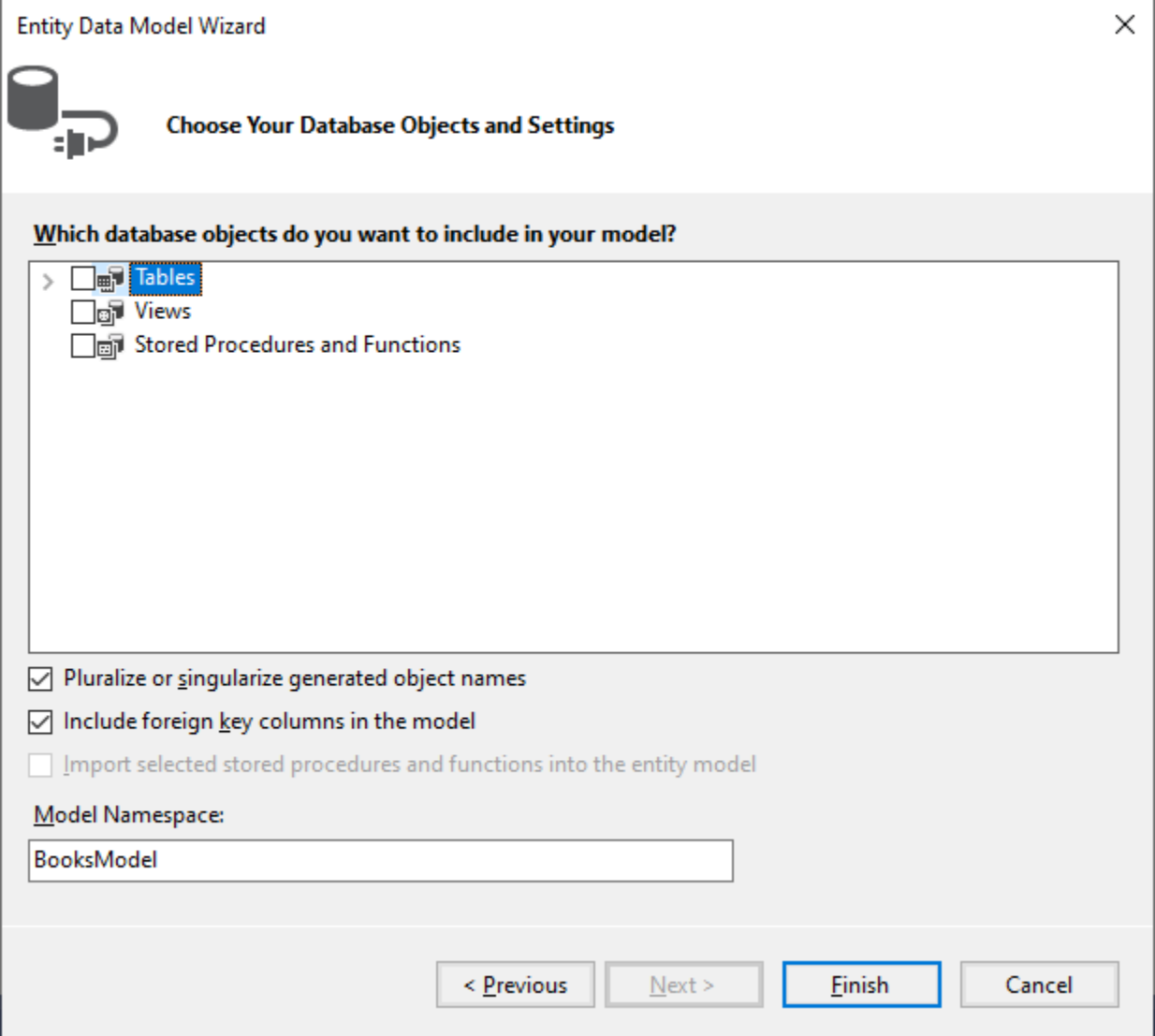
? The connection you selected uses a local data file that is not in the current project. Would you like to copy the file to your project and modify the connection?

Yes No

Step 7: Choose as shown.



Step 8: In the following screenshot, check the **Tables** node.



The screenshot shows the 'Entity Data Model Wizard' dialog box. The title bar reads 'Entity Data Model Wizard' with a close button (X) on the right. Below the title bar is a database cylinder icon and the text 'Choose Your Database Objects and Settings'. The main area is titled 'Which database objects do you want to include in your model?'. It contains a list of database objects with checkboxes: 'Tables' (checked), 'Views' (unchecked), and 'Stored Procedures and Functions' (unchecked). Below this list are three checkboxes: 'Pluralize or singularize generated object names' (checked), 'Include foreign key columns in the model' (checked), and 'Import selected stored procedures and functions into the entity model' (unchecked). At the bottom, there is a 'Model Namespace:' label and a text box containing 'BooksModel'. The bottom right corner has four buttons: '< Previous', 'Next >', 'Finish' (highlighted with a blue border), and 'Cancel'.

Entity Data Model Wizard

Choose Your Database Objects and Settings

Which database objects do you want to include in your model?

- ☒ Tables
- ☐ Views
- ☐ Stored Procedures and Functions

☒ Pluralize or singularize generated object names

☒ Include foreign key columns in the model

☐ Import selected stored procedures and functions into the entity model


Model Namespace:

BooksModel

< Previous Next > **Finish** Cancel

Expand Table node and select the tables as shown..

Entity Data Model Wizard

 Choose Your Database Objects and Settings

Which database objects do you want to include in your model?

- ☒ **Tables**
 - ☒ **dbo**
 - ☒ AuthorISBN
 - ☒ Authors
 - ☒ Titles
 - ☐ Views
 - ☐ Stored Procedures and Functions

☒ Pluralize or singularize generated object names

☒ Include foreign key columns in the model

☐ Import selected stored procedures and functions into the entity model

Model Namespace:

BooksModel

< Previous Next > **Finish** Cancel

Ignore the Security Warning.

Security Warning

Running this text template can potentially harm your computer. Do not run it if you obtained it from an untrusted source.

Click OK to run the template.
Click Cancel to stop the process.

☐ Do not show this message again

OK Cancel

Step 09: If all the above steps carried out correctly, the you would see the following files added – Books.mdf and Books.edmx as shown below.

