

Assignment 4

Due Apr 12 by 11:59pm **Points** 10 **Submitting** a file upload **File Types** zip
Available until Apr 16 at 11:59pm

This assignment was locked Apr 16 at 11:59pm.



Northwind Traders Site

Statement of Authorship

- Lab to be done individually
- In order to be graded, the following Statement of Authorship must be on the Privacy page
- I, Firstname Lastname, student number 123456789, certify that this material is my original work. No other person's work has been used without due acknowledgment and I have not made my work available to anyone else.
- Replace Firstname Lastname with your name and 123456789 with your student number

Requirements

- Create a C# ASP.NET Core Web Application project named **assignment4**, ensure solution and project are not in same directory
- Use version **ASP.NET Core 3.1** with the Web Application (Model-View-Controller) template, configure HTTPS
- Create a C# ASP.NET Core Web Application project named **assignment4** using version ASP.NET Core 3.1 with the Web Application (Model-View-Controller) and API templates
- The site allows the user to observe two tables of the Northwind database

 Use this script to create the database [Northwind.sql](https://mycanvas.mohawkcollege.ca/courses/56674/files/8771171/download?download_frd=1) 

(https://mycanvas.mohawkcollege.ca/courses/56674/files/8771171/download?download_frd=1)

- Your final submitted work must use localhost\\sqlexpress in the connection string
- Each of the existing pages and new pages will need to have their Page Title property modified

1st Project Setup

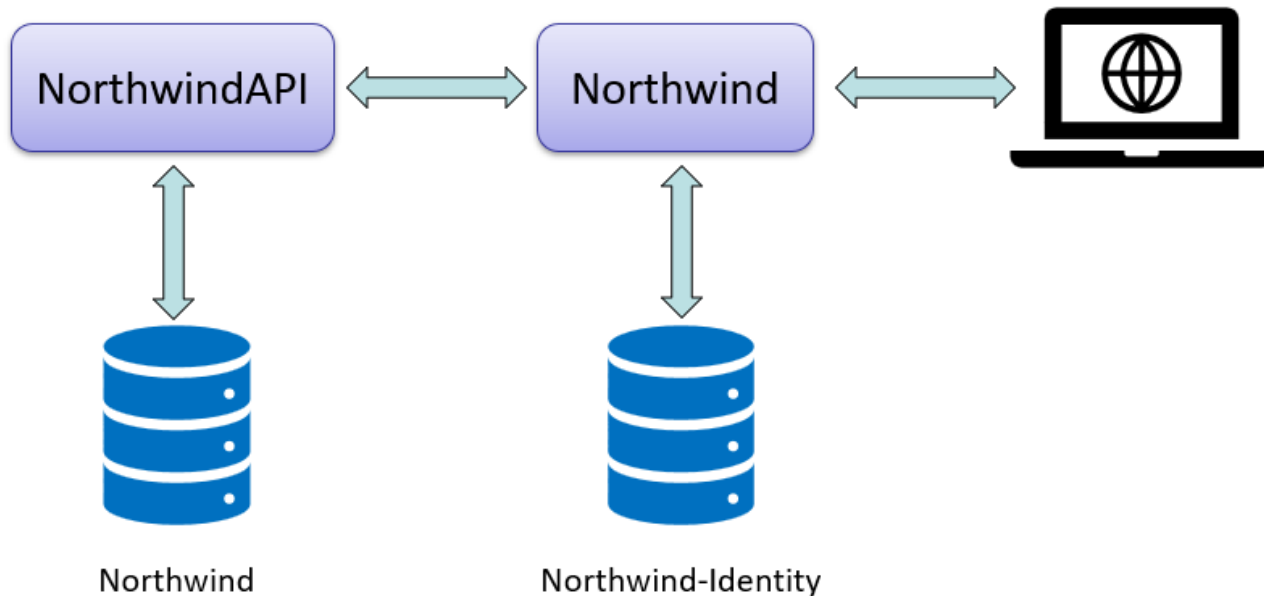
- Project name: **Northwind**
- Solution name: **assignment4**
- Place solution and project in the same directory: **Not selected**
- Template: **Web Application (Model-View-Controller)**
- Authentication: **Individual User Accounts**

2nd Project Setup

- Project name: **NorthwindAPI**
- Template: **API**
- Configure for HTTPS: **Selected**
- Delete Controllers / WeatherForecastController.cs and WeatherForecast.cs

Solution Setup

- Configure multiple startup projects
- Set both projects to start
- Set the API project to start first



Project Manager Console

- When using the PMC, remember to set the Default project drop-down list to the correct project

Database Setup

- Ensure the name of the identity database is **Northwind-Identity**
- In the API project, use the scaffolder to create the database context and model for the Northwind database table Products into a folder named Models

NorthwindAPI - Products Controller

- Scaffold an API Controller with actions, using Entity Framework based on the Product model
- If you receive the error "There was an error running the selected code generator", uninstall and re-install the NuGet package: Microsoft.VisualStudio.Web.CodeGeneration.Design, version 3.1.4
- Remove the PUT, POST, and DELETE endpoints
- Update the route attribute of the GetProducts method to **[HttpGet("ByCategory/{category}")]** and change the method signature to accept an integer for category

- Update the method to only return products that are of the requested category and products that are not discontinued

NorthwindAPI - Swagger

- Configure a Swagger endpoint to document the API
- Configure the project's launch URL to be the Swagger endpoint

NorthwindAPI - Category

- Add a class for Category
 - CategoryId int
 - CategoryName string
- Manually add the Categories DbSet property to the database context

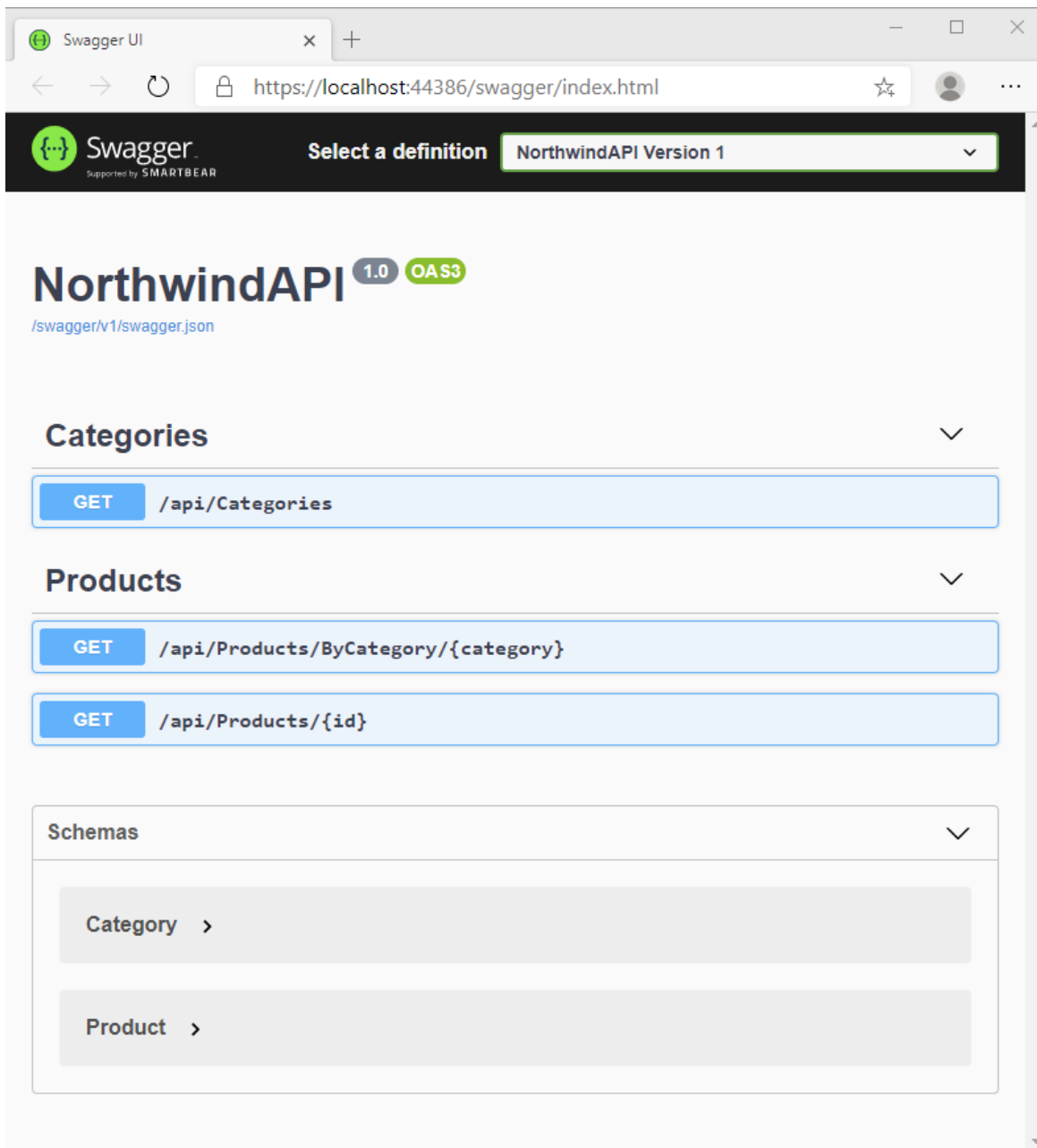
NorthwindAPI - Categories Controller

- Scaffold an API Controller with actions, using Entity Framework based on the Category model
- Remove all of the endpoints except the GET that returns all categories

Swagger

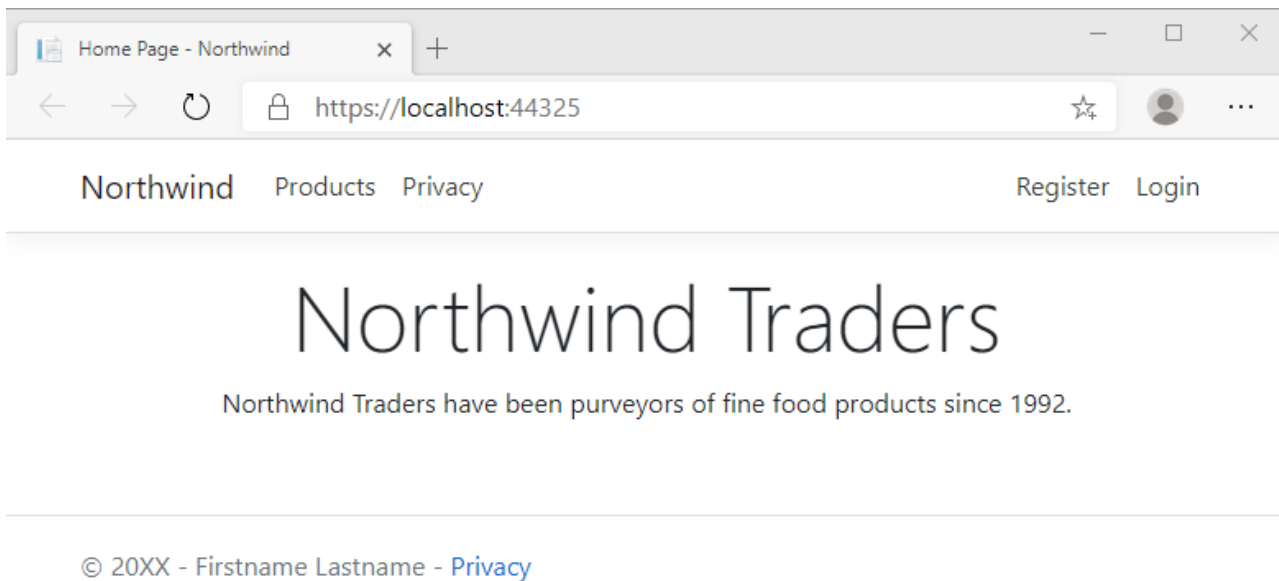
- Once NorthwindAPI is fully configured, the Swagger endpoint should look like this





▶ Northwind - __Layout.cshtml and Home / Index.cshtml

- __Layout.cshtml changes
 - Menu link to ProductsController/Index
 - Footer: change 20XX to current year and Firstname Lastname to your name
- Home / Index.cshtml changes
 - Text as shown



Northwind - Product

- Create a Product model class based on the JSON returned by Northwind API
- The data type for unit price is decimal
- Add annotations as shown in the screenshots

Northwind - Category

- Create a Category model class based on the JSON returned by Northwind API

Products Controller

- Scaffold an MVC Controller with read/write actions
- Remove the Create, Edit, and Delete actions
- Ensure all Northwind API calls are in Try/Catch blocks
- Create a method named GetCategoriesAsync that returns a list of all categories by making an asynchronous call to Northwind API
- Update the Index method to accept an optional parameter for category id, give it a default value of 1 (which is Beverages)
 - Using GetCategoriesAsync, build a drop-down list for categories
 - Update the products when the category changes
 - Make an asynchronous call to Northwind API to return all products in the specified category
- Update the Details method to make an asynchronous call to Northwind API to return the specified product
 - If the product is found, get all the categories and pass the category name to the View using a ViewBag
 - If the product is not found, return the error view with the shown message
- Create the Index and Details views as shown in the screenshots
 - In the Index view, the product name has been made into a link to the Details action

- Allow anonymous access to the Index action, but only authorized access to the Details action

Products - Northwind

← → ↻ <https://localhost:44325/Products?categoryId=5> ☆ 👤 ⋮

Northwind Products Privacy Register Login

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Products

Category: Grains/Cereals ▾

Name	Unit Price	In Stock	On Order
Gustaf's Knäckebröd	21.00	104	0
Tunnbröd	9.00	61	0
Filo Mix	7.00	38	0
Gnocchi di nonna Alice	38.00	21	10
Ravioli Angelo	19.50	36	0
Wimmers gute Semmelknödel	33.25	22	80

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Details - Sasquatch Ale - Northwind

← → ↻ <https://localhost:44325/Products/Details/34> ☆ 👤 ⋮

Northwind Products Privacy Hello bob@mail.com! Logout

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Sasquatch Ale

Supplier Id

Category

Quantity

Per Unit

Unit Price

In Stock

On Order

Reorder

Level

Discontinued

16

Beverages

24 - 12 oz bottles

14.00

111

0

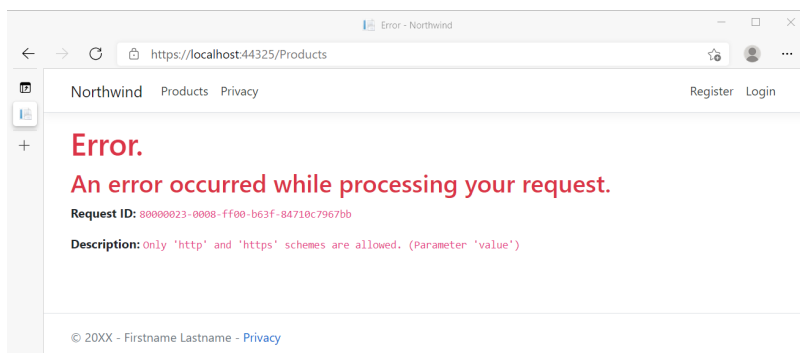
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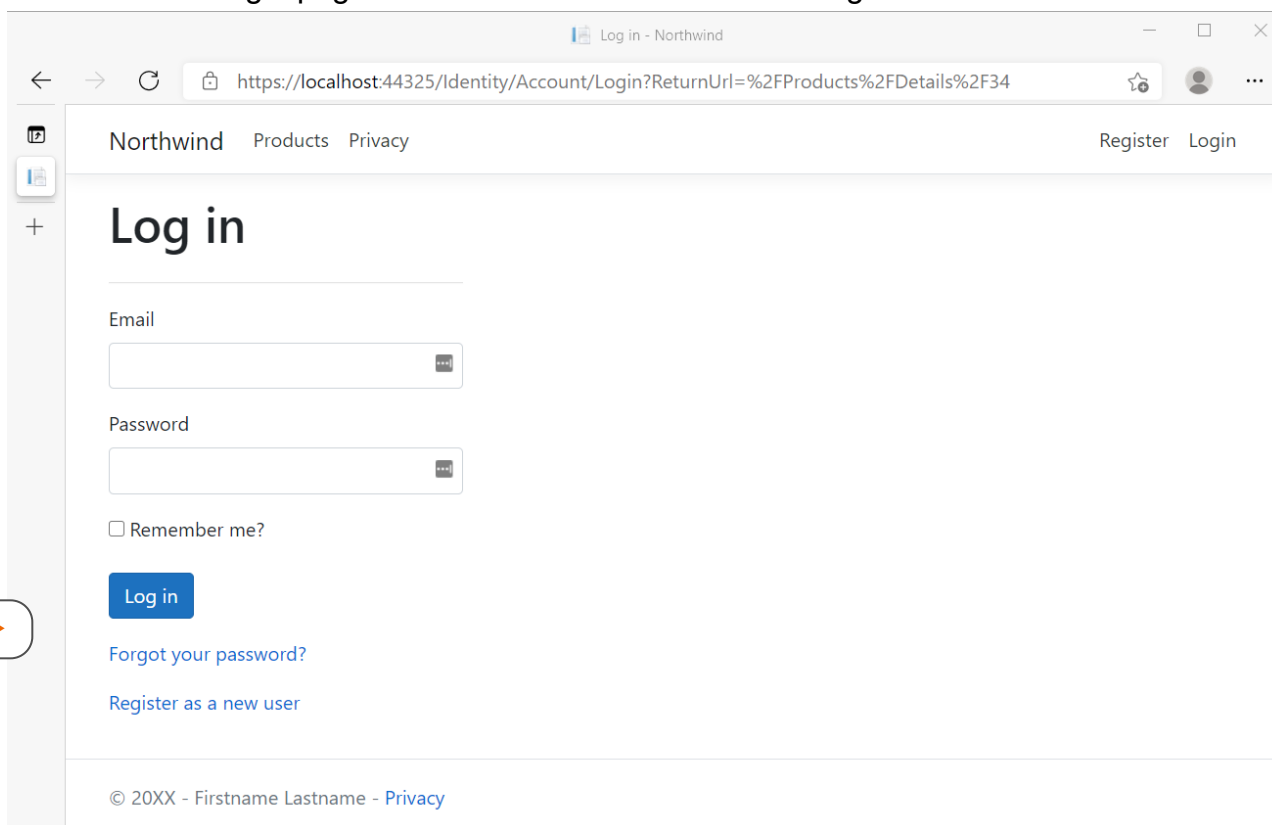
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Error

- Add a Description property to the Error model
- Update the Error view to use Description and remove the development text

Login Page

- Customize the login page as shown here and so that email gets focus



- You do not need to customize the registration page

Submission Instructions

- Once you have completed the assignment
- Exit all instances of Visual Studio
- Open File Explorer
- Find the folder where your assignment is
- These instructions will use C:\code\co884\assignment4 as an example

- Verify that the expected files are present
- Double-click the assignment4 folder
- Click the View menu and select Hidden Items if necessary
- Delete the **.vs** folder, it stores temporary data and can get quite large
- Return to the C:\code\co884 folder
- Right-click the assignment4 folder and select Send To / Compressed (zipped) folder
- Submit this file (assignment4.zip) by clicking the Submit Assignment button in the upper-right of this page and completing the submission

