

Sample task:

08312021_Empite_Co_Solution Project

Documentation.

To develop this sample application I used below

resources, IDE: Visual studio community edition 2019

Database server: SQL server management studio

3rd party integrations: these packages are installed to current visual studio solution through “Nutget Package manager”

1. "Microsoft.AspNetCore.Identity.EntityFrameworkCore" Version="5.0.9"
2. "Microsoft.AspNetCore.Identity.UI" Version="5.0.9"
3. "Microsoft.EntityFrameworkCore.Sqlite" Version="5.0.8"
4. "Microsoft.EntityFrameworkCore.SqlServer" Version="5.0.8"
5. "Microsoft.EntityFrameworkCore.SqlServer.Design" Version="1.1.6"
6. "Microsoft.EntityFrameworkCore.Tools"

Version="5.0.8" This was the concept and procedure I

followed!

First of all I have created ASP.Net core Web Application with MVC.
After that I have two sub folders called “Data” and “Models”

Data:

This folder contains all context classes that I used to develop this sample application.

I have used EF core for create

this, This contain 2 context

classes

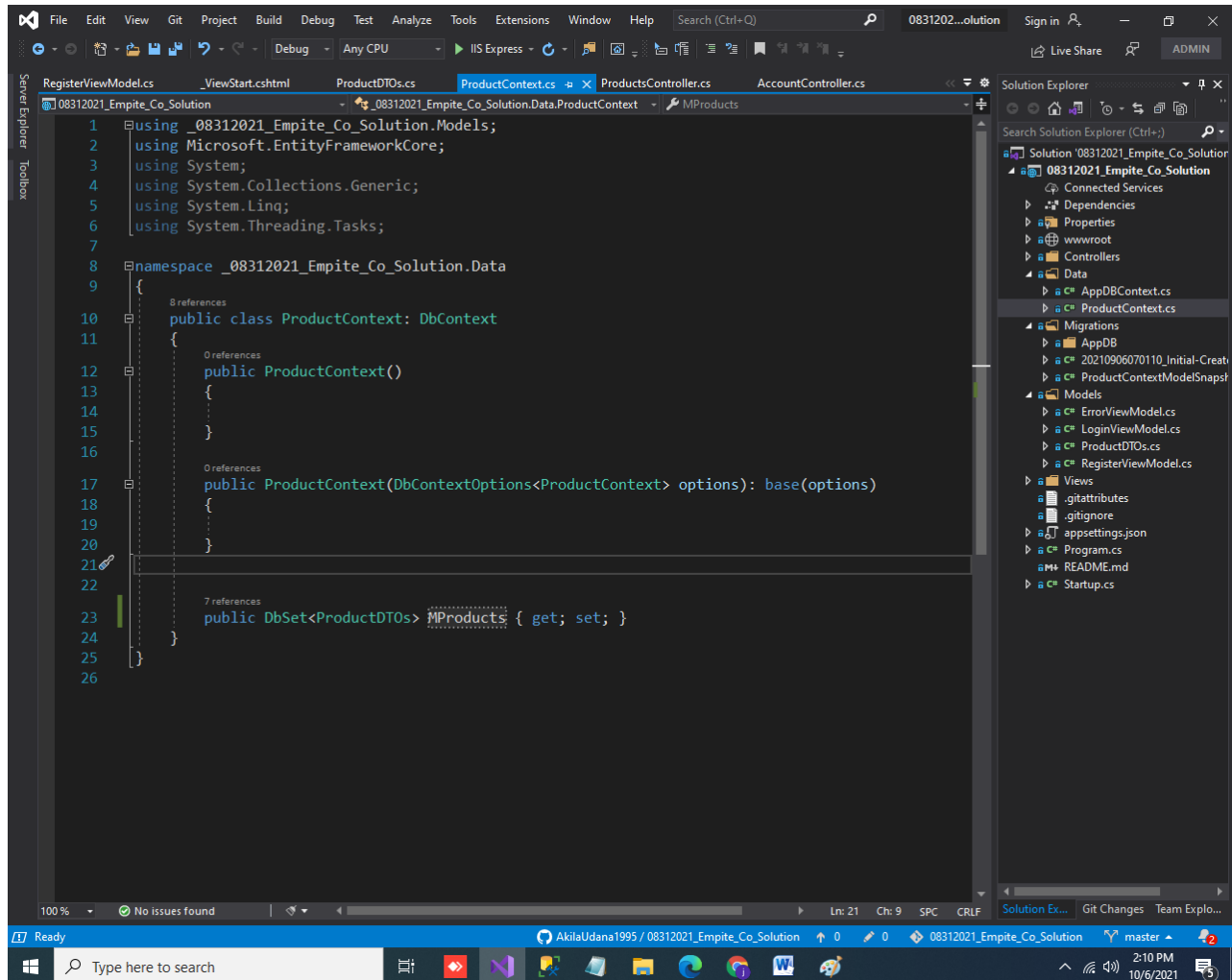
- ProductContext
- AppDBConte

xt ProductContext:

That is used for initializing default constructor and added parameterized constructor with data set,

Here “MProducts ” is the data table that will created for my application,

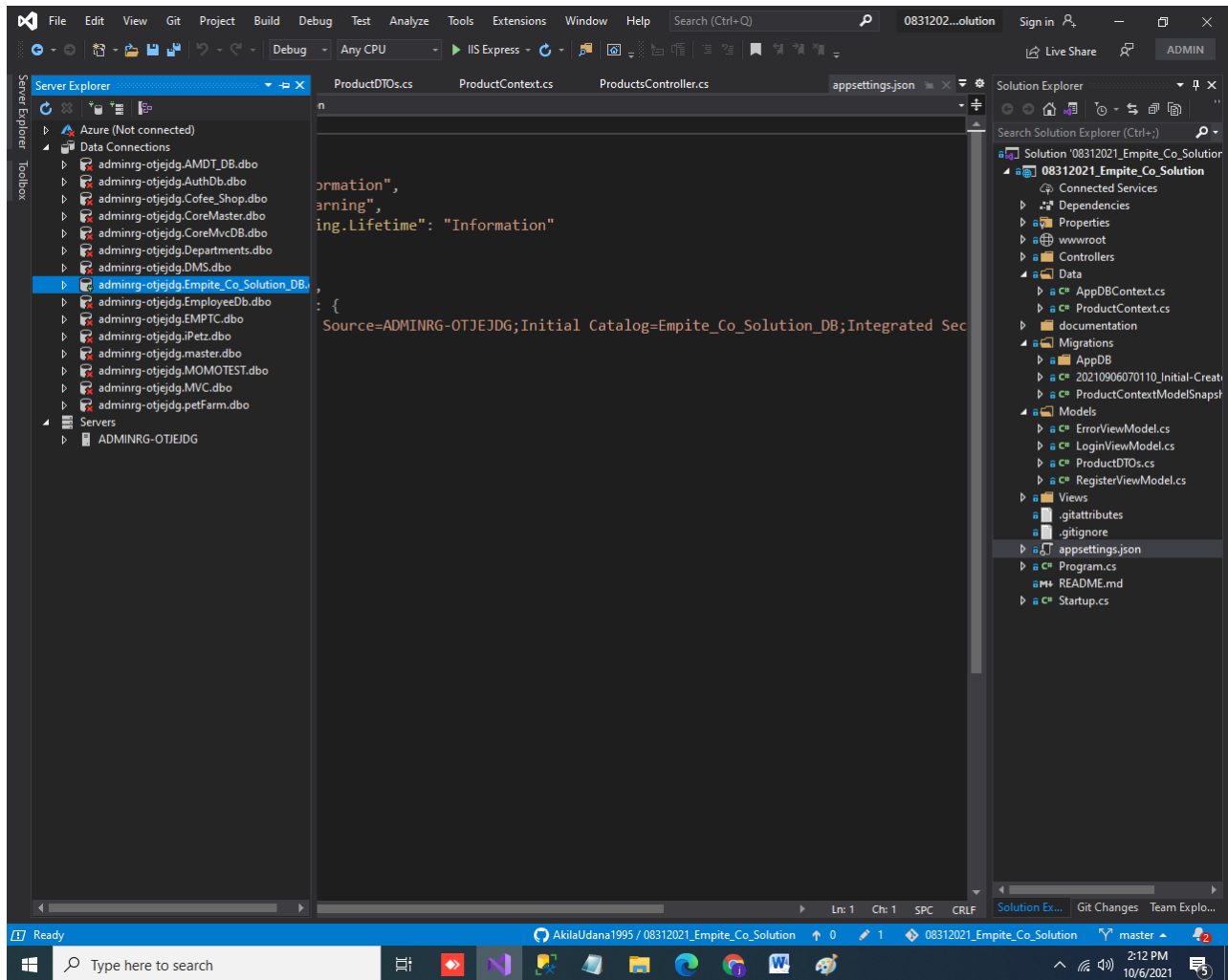
Then I have walked through server explore and connected my SQL server management studio data base to get connection and connection string...



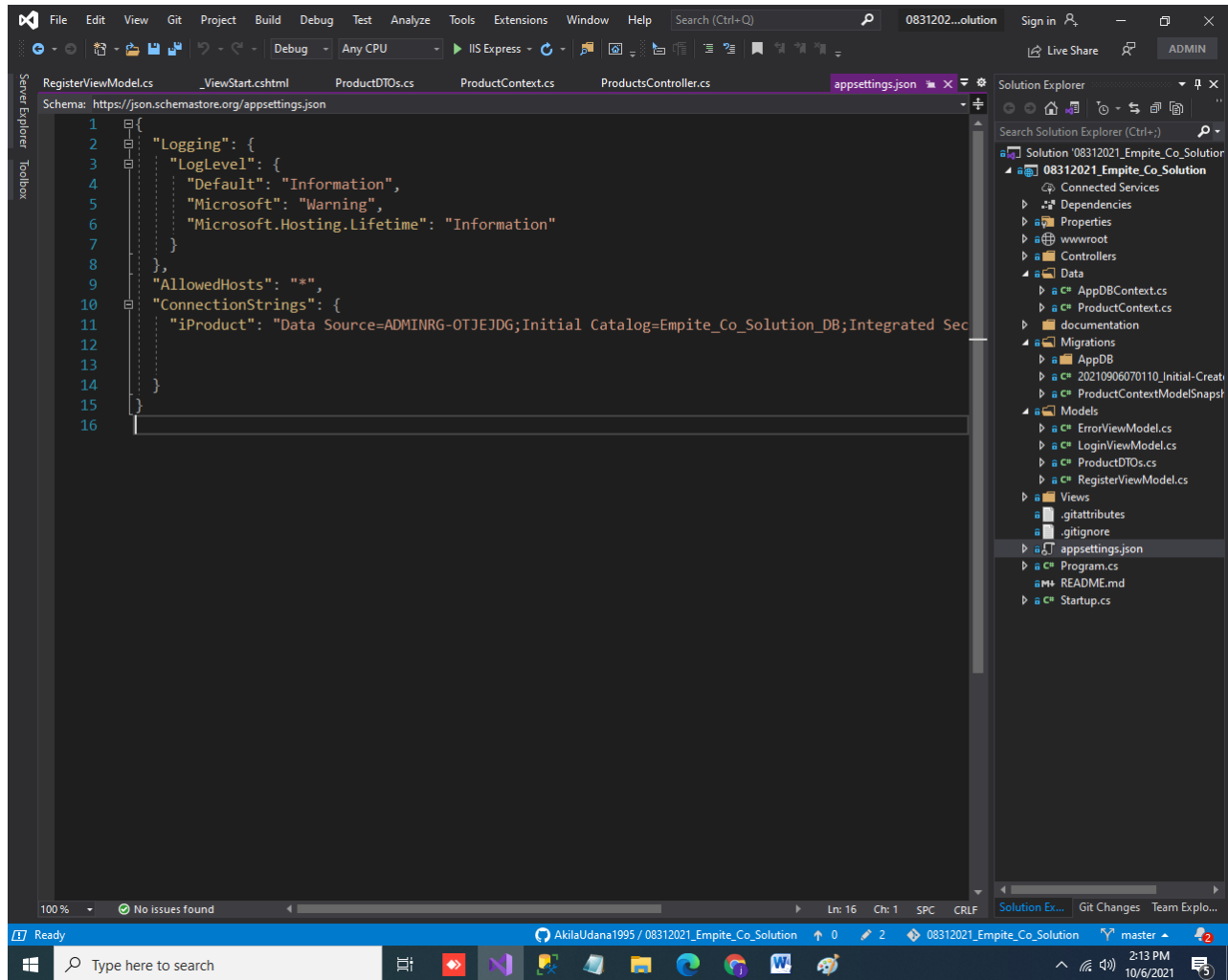
In this case I have already created a data base called

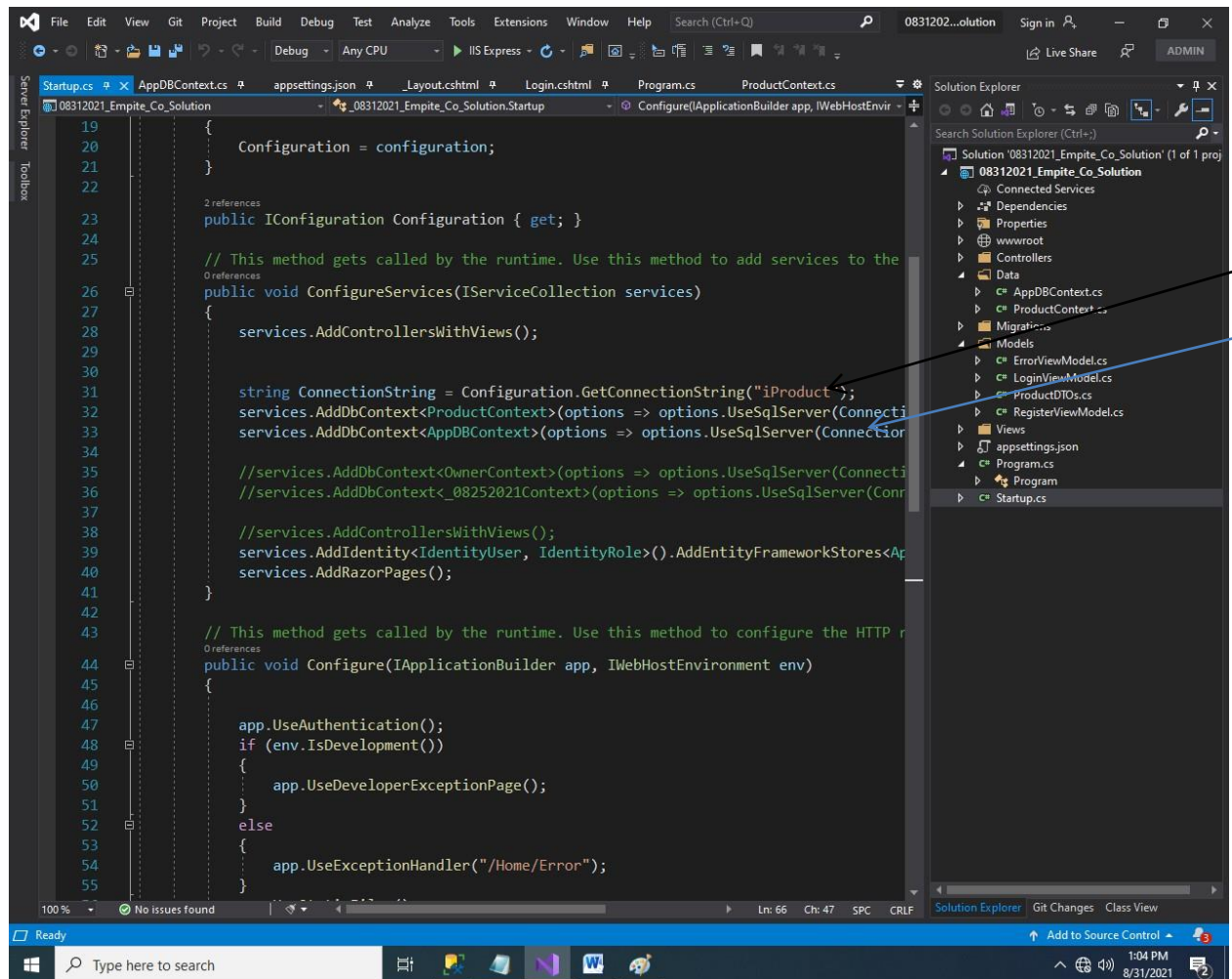
“Empite_Co_Solution_DB”, After that,

I had added connection string to “appsettings.json” to set the connectivity between my application and data base server.



After that, I have walked through “Startup.cs” to set the connectivity and migration, (Via context)



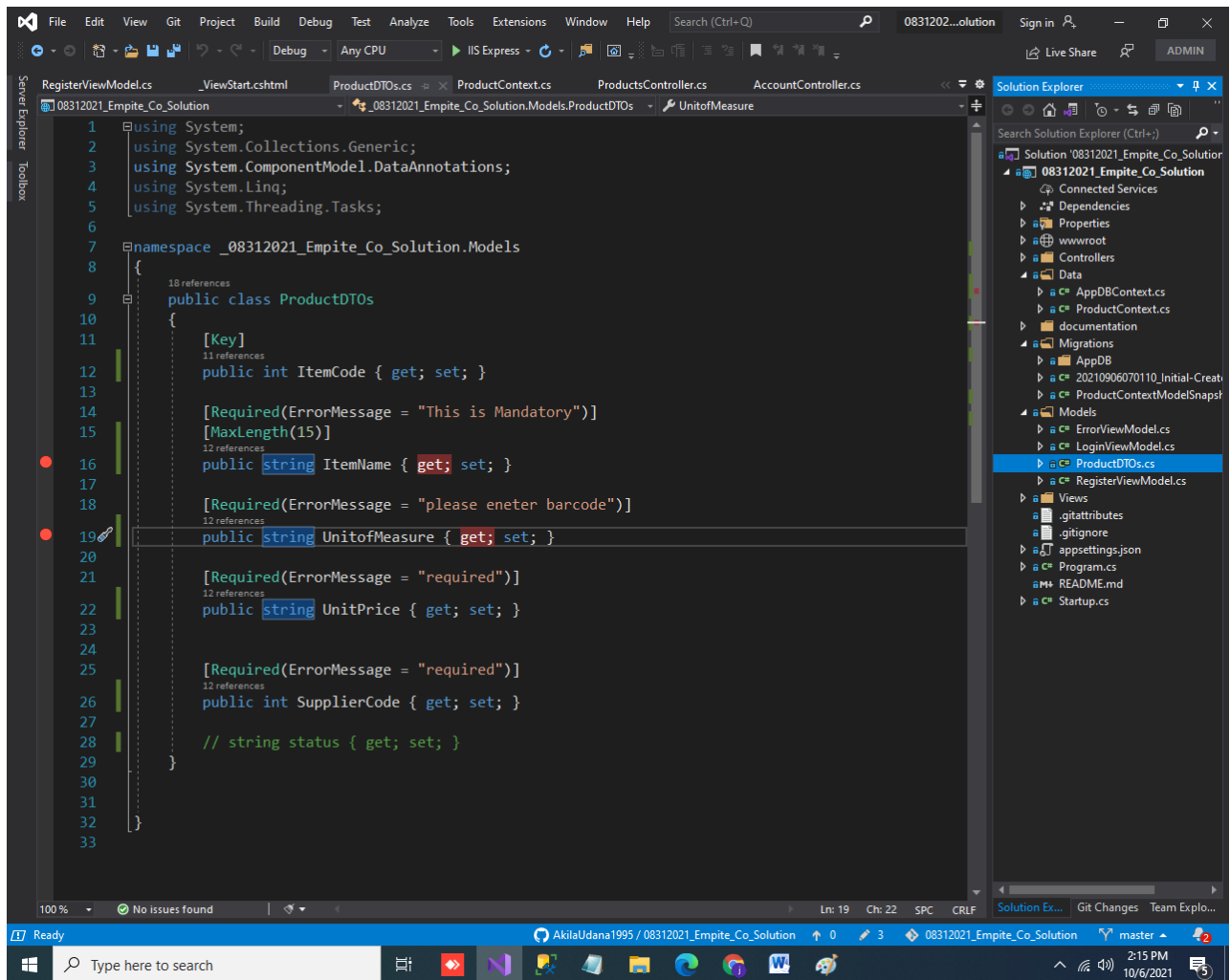


In arrowed area I have initiated connection string to data base and also added my first context (ProductContext) to set the migration.

My next movement was create data table for my Model class in Data base,

As I already mentioned that I have created a folder named “Models” inside that I have created a class called “ProductDTOs.cs”

Here I have added my simple code,



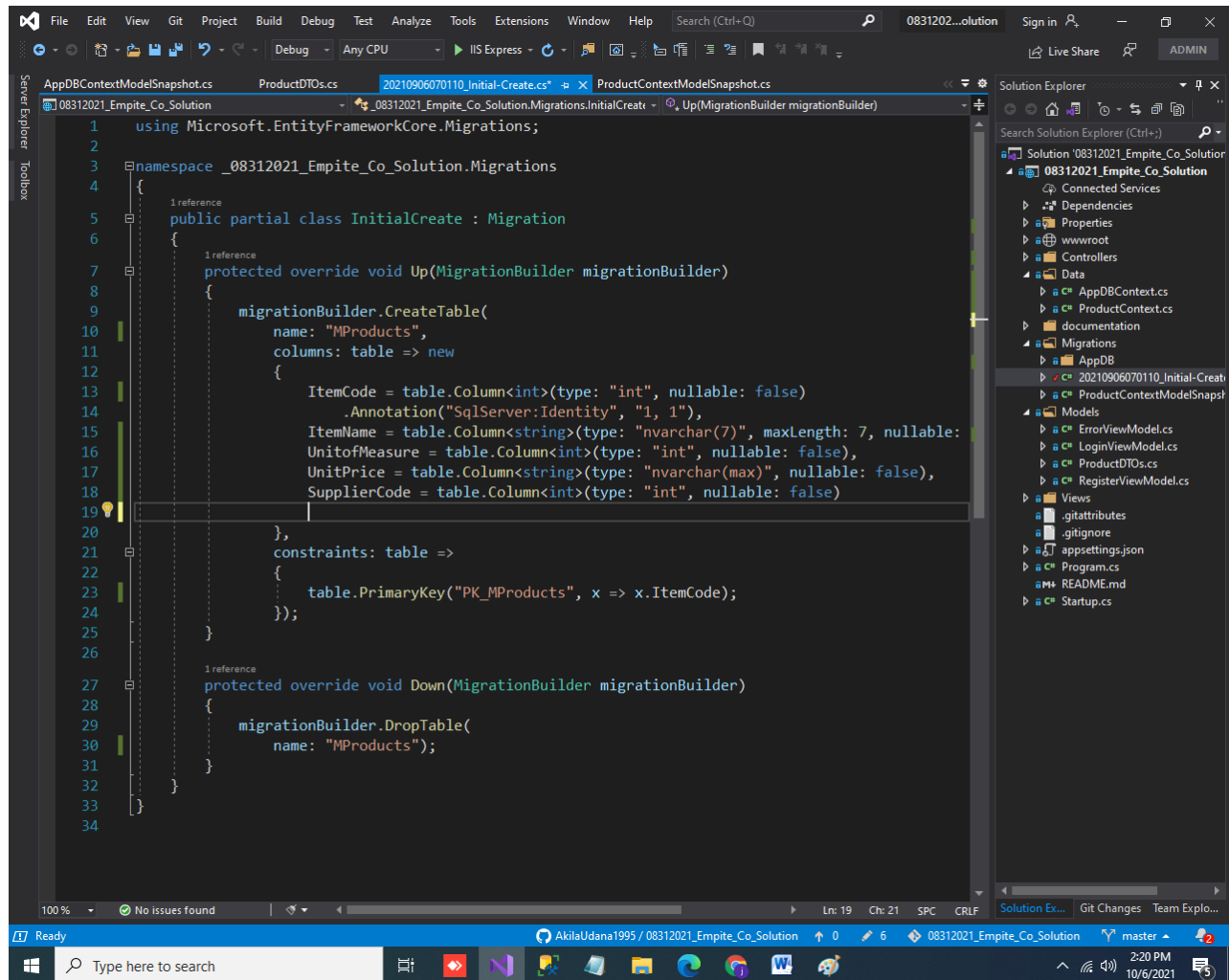
In here, I have added 6 properties and I have used Built in support “Annotations” as well for required fields, I have made some fields as compulsory and also added limitation for string max length for some fields too.

After that I have create data table using “Migration builder” I walked through Nutget Package manager
Then

Add-Migration “Initial-Create” //here I added Migration for database.

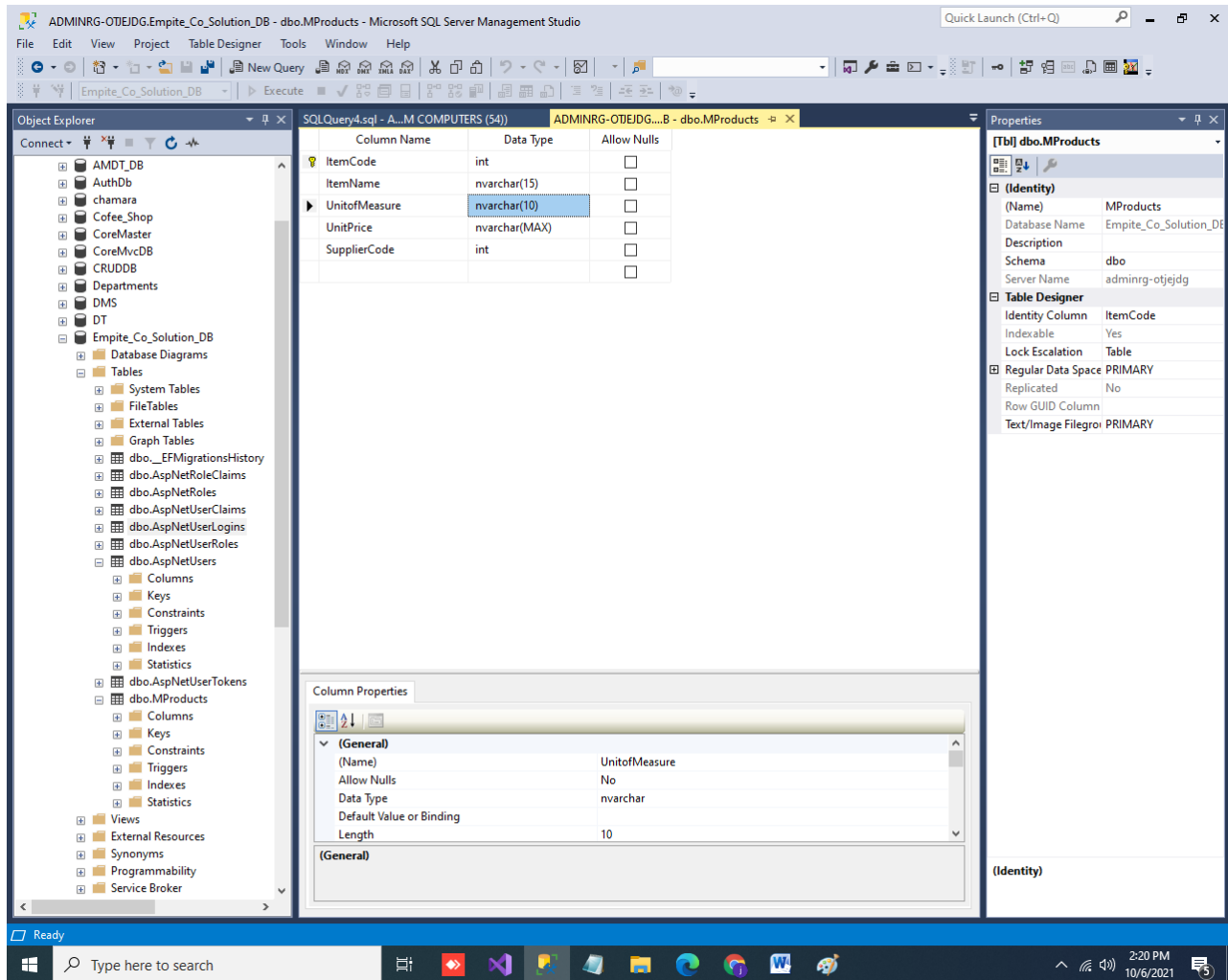
Update-Database //that make sure that my initial migration was successful or not.

After that I have verified that it has successful,



The screenshot shows the Visual Studio IDE with the file `20210906070110_Initial-Create.cs` open. The code defines a partial class `InitialCreate` that inherits from `Migration`. The `Up` method creates a table named `MProducts` with columns `ItemCode`, `ItemName`, `UnitofMeasure`, `UnitPrice`, and `SupplierCode`. The `Down` method drops the `MProducts` table. The Solution Explorer on the right shows the project structure, including the `Migrations` folder and the `Initial-Create` migration file.

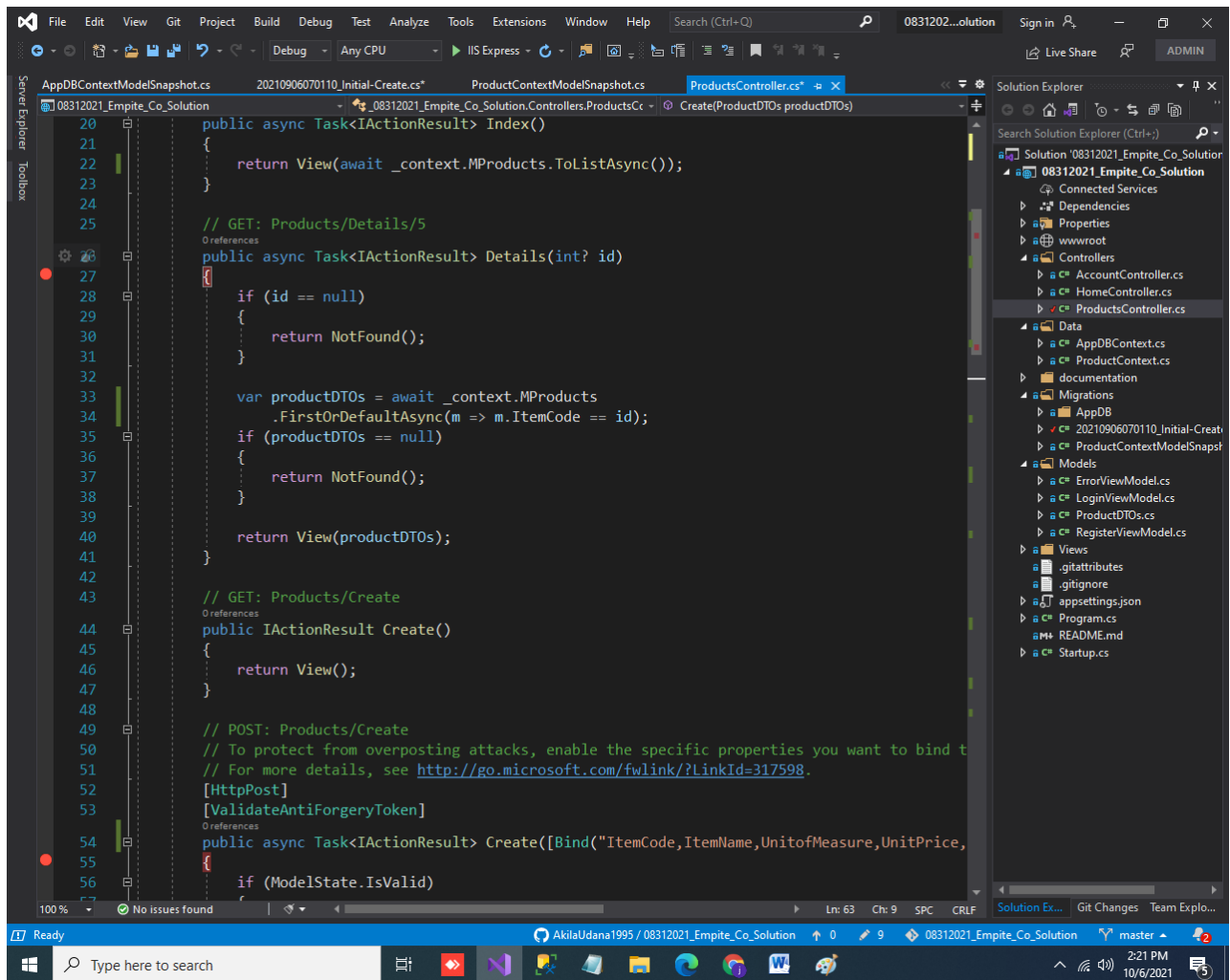
```
1 using Microsoft.EntityFrameworkCore.Migrations;
2
3 namespace _08312021_Empite_Co_Solution.Migrations
4 {
5     1 reference
6     public partial class InitialCreate : Migration
7     {
8         1 reference
9         protected override void Up(MigrationBuilder migrationBuilder)
10        {
11            migrationBuilder.CreateTable(
12                name: "MProducts",
13                columns: table => new
14                {
15                    ItemCode = table.Column<int>(type: "int", nullable: false)
16                        .Annotation("SqlServer:Identity", "1, 1"),
17                    ItemName = table.Column<string>(type: "nvarchar(7)", maxLength: 7, nullable: false),
18                    UnitofMeasure = table.Column<int>(type: "int", nullable: false),
19                    UnitPrice = table.Column<string>(type: "nvarchar(max)", nullable: false),
20                    SupplierCode = table.Column<int>(type: "int", nullable: false)
21                },
22                constraints: table =>
23                {
24                    table.PrimaryKey("PK_MProducts", x => x.ItemCode);
25                });
26        }
27        1 reference
28        protected override void Down(MigrationBuilder migrationBuilder)
29        {
30            migrationBuilder.DropTable(
31                name: "MProducts");
32        }
33    }
34 }
```



After add this migration,

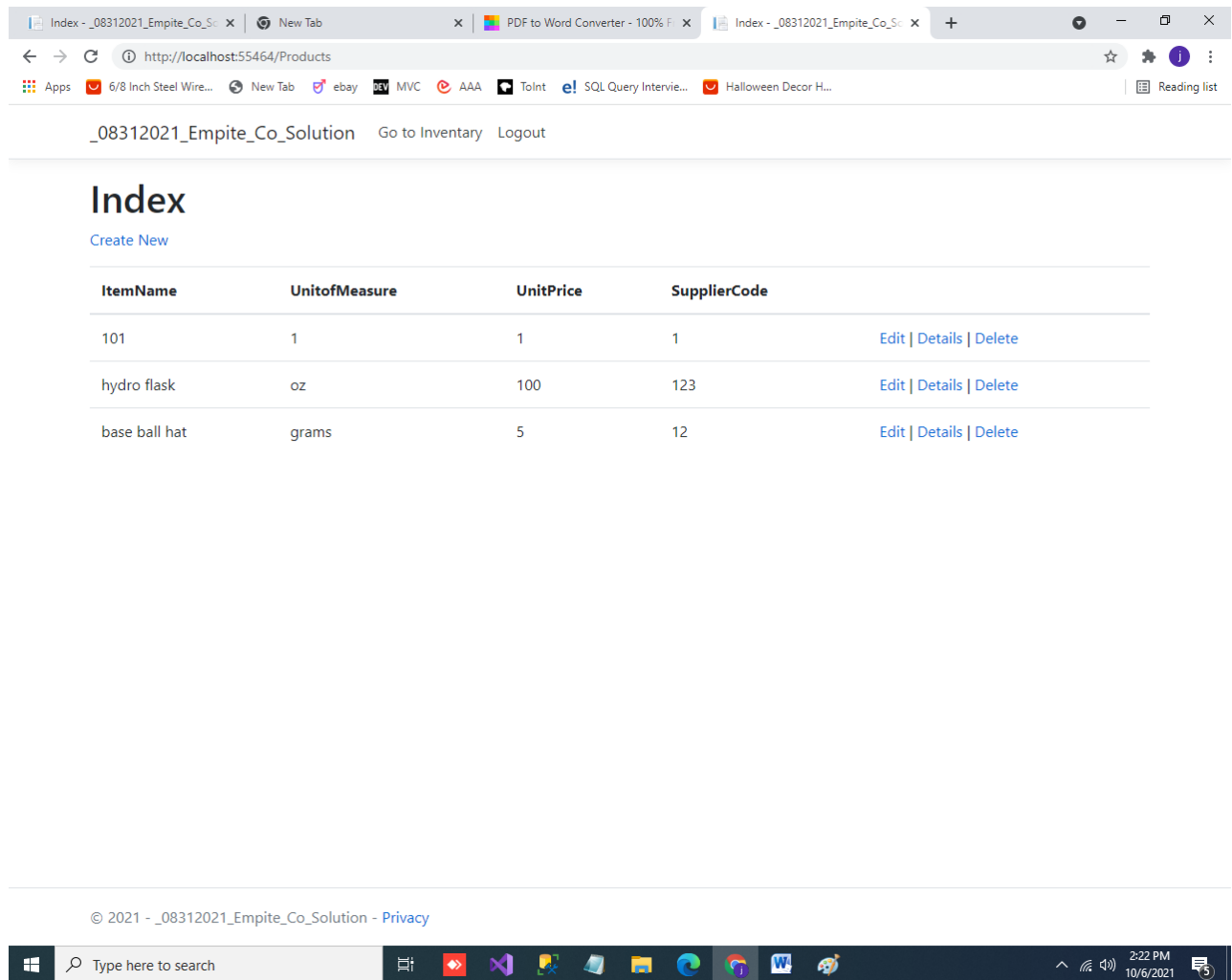
I have created new controller, in controller class, I have named it as “ProductsController”, I used MVC controller with Read/write actions with using entity framework,

I have created this controller by proving Model class and context class as well.



Since I have used scaffolding here, automatically VS has created view for me, So it has view for

1. CREATE
2. DETAILS
3. INDEX
4. DELETE
5. EDIT



So far it is working perfectly,

By using this it can POST a product, update a product (HTTPPUT), view and delete as well,

I have checked the application from data base terminal and data base has also updated successfully...

SQLQuery6.sql - ADMINRG-OTJEJDG.Empite_Co_Solution_DB (ADMINRG-OTJEJDG\DV... MICROSOFT SQL SERVER MANAGEMENT STUDIO

File Edit View Query Project Tools Window Help

Object Explorer

Connect

Empite_Co_Solution_DB

Database Diagrams

Tables

System Tables

FileTables

External Tables

Graph Tables

dbo._EFMigrationsHistory

dbo.AspNetRoleClaims

dbo.AspNetRoles

dbo.AspNetUserClaims

dbo.AspNetUserLogins

dbo.AspNetUserRoles

dbo.AspNetUsers

Columns

Keys

Constraints

Triggers

Indexes

Statistics

dbo.AspNetUserTokens

dbo.MProducts

Columns

Keys

Constraints

Triggers

Indexes

Statistics

Views

External Resources

Synonyms

Programmability

Service Broker

SQLQuery6.sql - A...M COMPUTERS (57)

USE [Empite_Co_Solution_DB]

GO

SELECT [ItemCode], [ItemName], [UnitOfMeasure], [UnitPrice], [SupplierCode]

FROM [dbo].[MProducts]

GO

Results

| | ItemCode | ItemName | UnitOfMeasure | UnitPrice | SupplierCode |
|---|----------|---------------|---------------|-----------|--------------|
| 1 | 2 | 101 | 1 | 1 | 1 |
| 2 | 3 | hydro flask | oz | 100 | 123 |
| 3 | 4 | base ball hat | grams | 5 | 12 |

Messages

Properties

Current connection parameters

Aggregate Status

Connection failure:

Elapsed time: 00:00:00.021

Finish time: 10/6/2021 2:22:52 PM

Name: ADMINRG-OTJEJDG

Rows returned: 3

Start time: 10/6/2021 2:22:52 PM

State: Open

Connection

Connection name: ADMINRG-OTJEJDG (AD...

Connection Details

Connection elapsed: 00:00:00.021

Connection encryp: Not encrypted

Connection finish t: 10/6/2021 2:22:52 PM

Connection rows r: 3

Connection start t: 10/6/2021 2:22:52 PM

Connection state: Open

Display name: ADMINRG-OTJEJDG

Login name: ADMINRG-OTJEJDG\DV...

Server name: ADMINRG-OTJEJDG

Server version: 15.0.2000

Session Tracing ID

SPID: 57

Name

The name of the connection.

Query execut... ADMINRG-OTJEJDG (15.0 RTM) ADMINRG-OTJEJDG\DV... Empite_Co_Solution_DB 00:00:00 3 rows

Ready

Ln 14 Col 1 Ch 1 INS

Type here to search

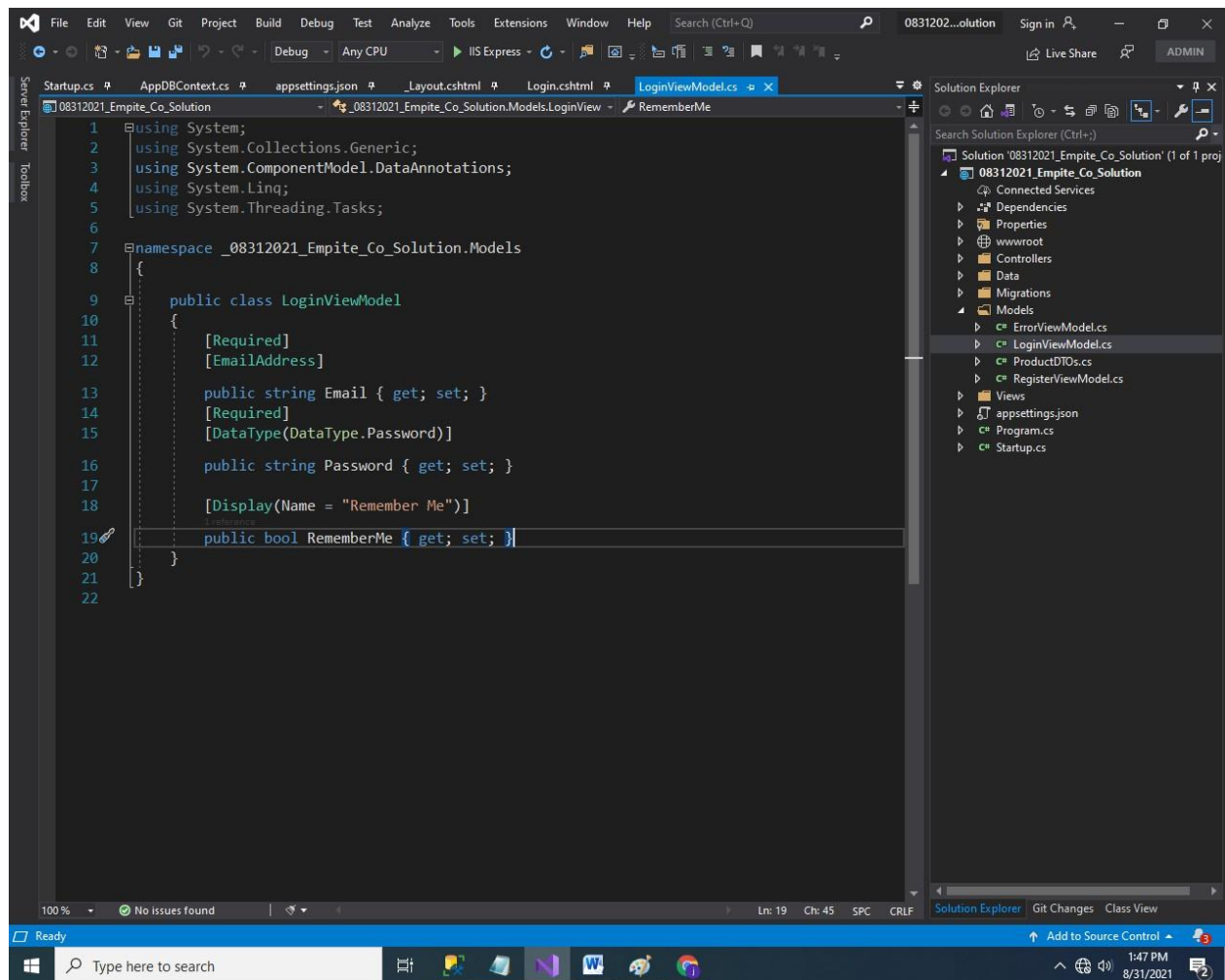
2:22 PM 10/6/2021

So I have created very basic application using ASP.NET core MVC.

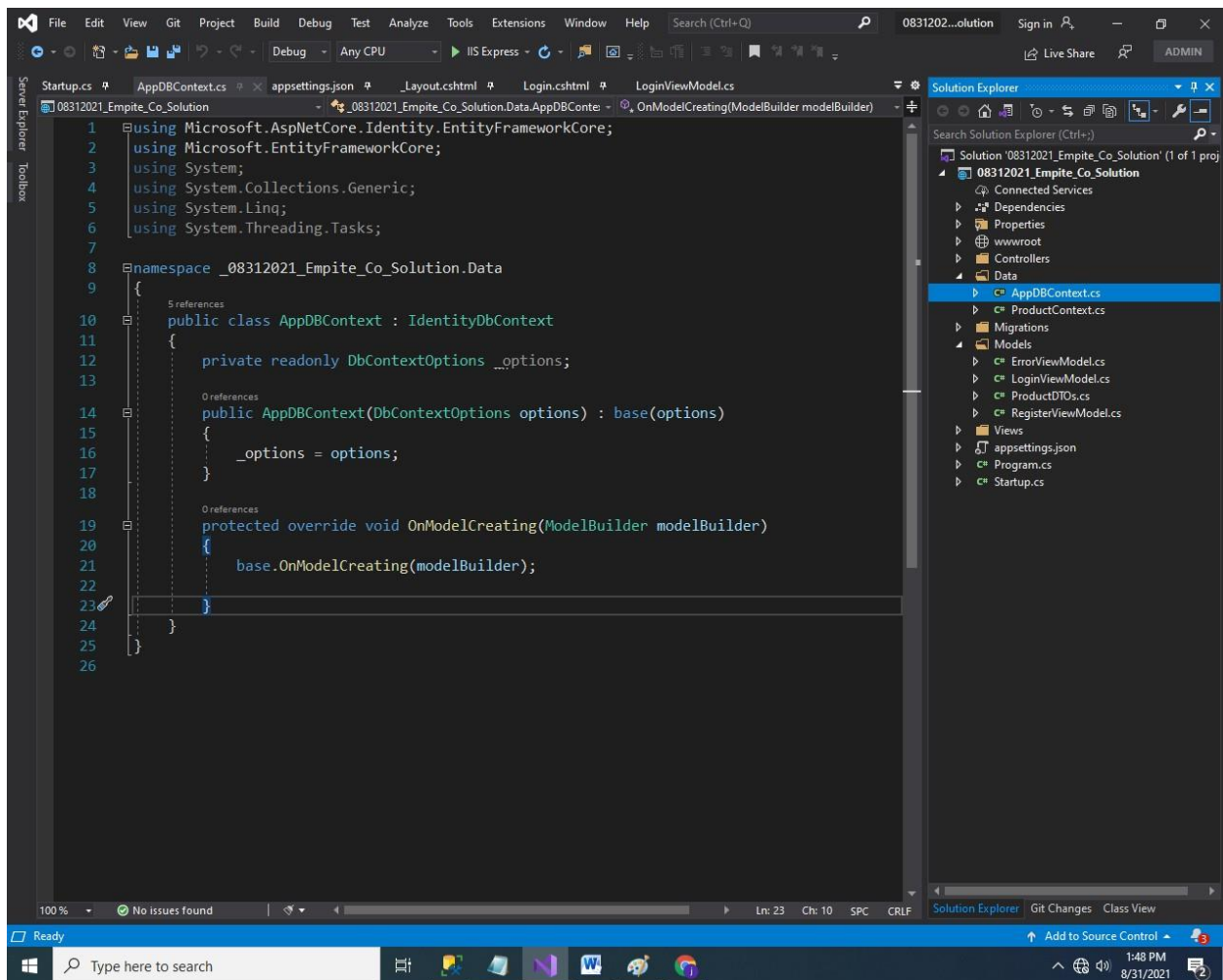
Then my next task is implement login technique and integrates this will current project,

Here below I have showed the method/way I used.

I have created two view models for register and login,



Then I created another context class for this integration.



After that I have referenced this context also “Startup.cs” to avoid conflicts between namespaces in project.

After that I did another migration using migration builder, Since I have already used one migration this time I Used,

Add-Migration “Second-create” -context AppDbContext // here I have specified which context need to use at this time,

Then after I have created table also using,

Update-database” -context AppDbContext

That would worked properly,

The screenshot displays the Microsoft SQL Server Management Studio interface. The central pane shows a SQL query executed against the 'Empite_Co_Solution_DB' database. The query selects columns from the 'dbo.MProducts' table. The results pane below the query shows three rows of data.

```
USE [Empite_Co_Solution_DB]
GO

SELECT [ItemCode]
      ,[ItemName]
      ,[UnitofMeasure]
      ,[UnitPrice]
      ,[SupplierCode]
FROM [dbo].[MProducts]
GO
```

| | ItemCode | ItemName | UnitofMeasure | UnitPrice | SupplierCode |
|---|----------|---------------|---------------|-----------|--------------|
| 1 | 2 | 101 | 1 | 1 | 1 |
| 2 | 3 | hydro flask | oz | 100 | 123 |
| 3 | 4 | base ball hat | grams | 5 | 12 |

The right-hand pane shows the 'Properties' window for the current connection, displaying details such as connection parameters, aggregate status, and connection details.

This time I used empty controller scheme to implement my project. So I have added an empty controller named “AccountController”.

I have used below methods to generate my code.

I have used built in support “`private readonly UserManager<IdentityUser> _userManager;`
`private readonly SignInManager<IdentityUser> _signInManager;`”

to implement my code.

Then I written HTTPPost method to create register for new user,

```
[HttpPost]
public async Task<ActionResult> Register(RegisterViewModel model)
{
    if (ModelState.IsValid)
    {
        var user = new IdentityUser
        {
            UserName = model.Email,
            Email = model.Email,
        };

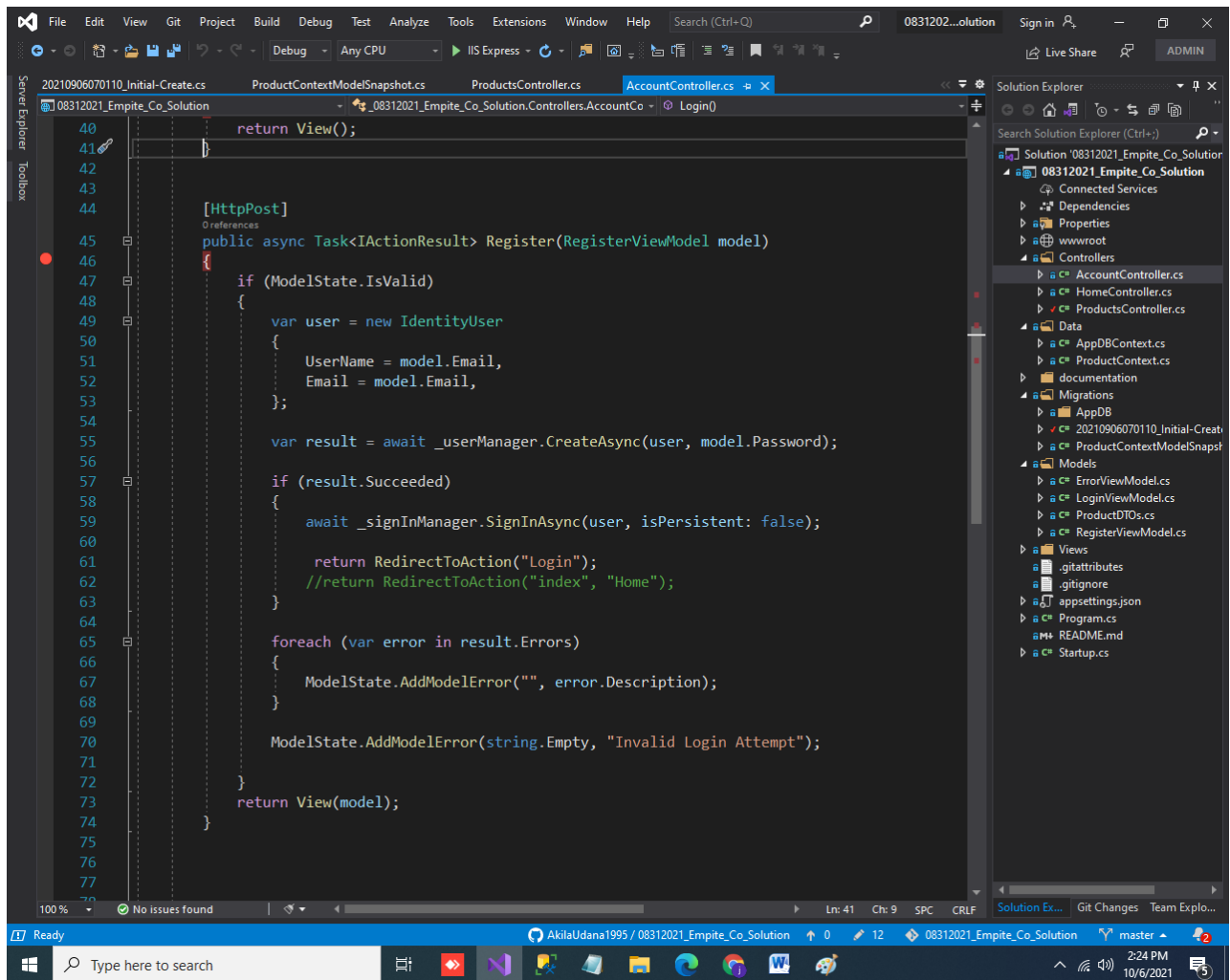
        var result = await _userManager.CreateAsync(user, model.Password);

        if (result.Succeeded)
        {
            await _signInManager.SignInAsync(user, isPersistent: false);

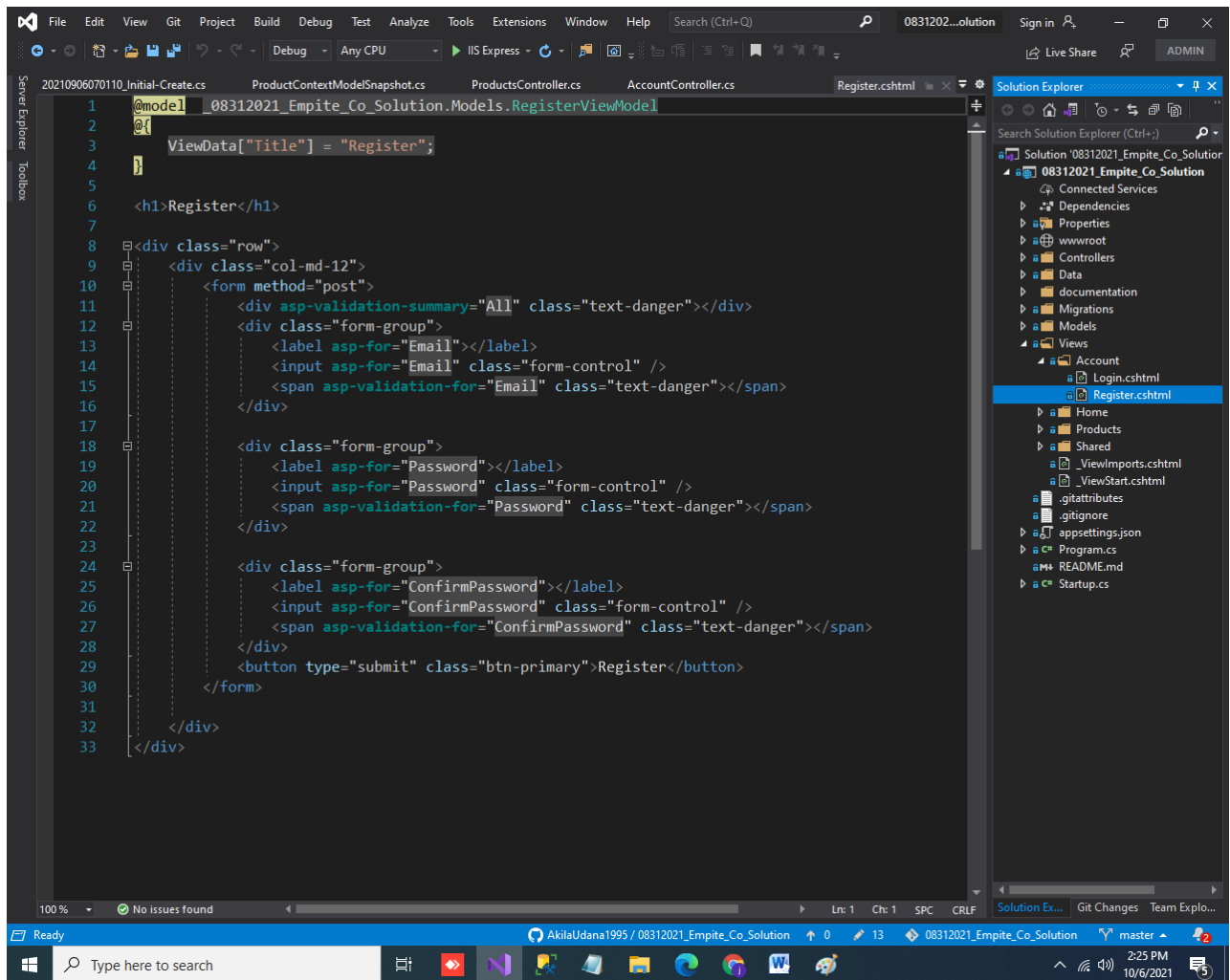
            return RedirectToAction("Login");
            //return RedirectToAction("index", "Home");
        }

        foreach (var error in result.Errors)
        {
            ModelState.AddModelError("", error.Description);
        }

        ModelState.AddModelError(string.Empty, "Invalid Login Attempt");
    }
    return View(model);
}
```

After that I have created a new RAZOR view for Register method, by giving model class and context class as well.



Now I need to show return view for newly created Register method, So I have created view in controller,

```
public IActionResult Register()
{
    return View();
}
```

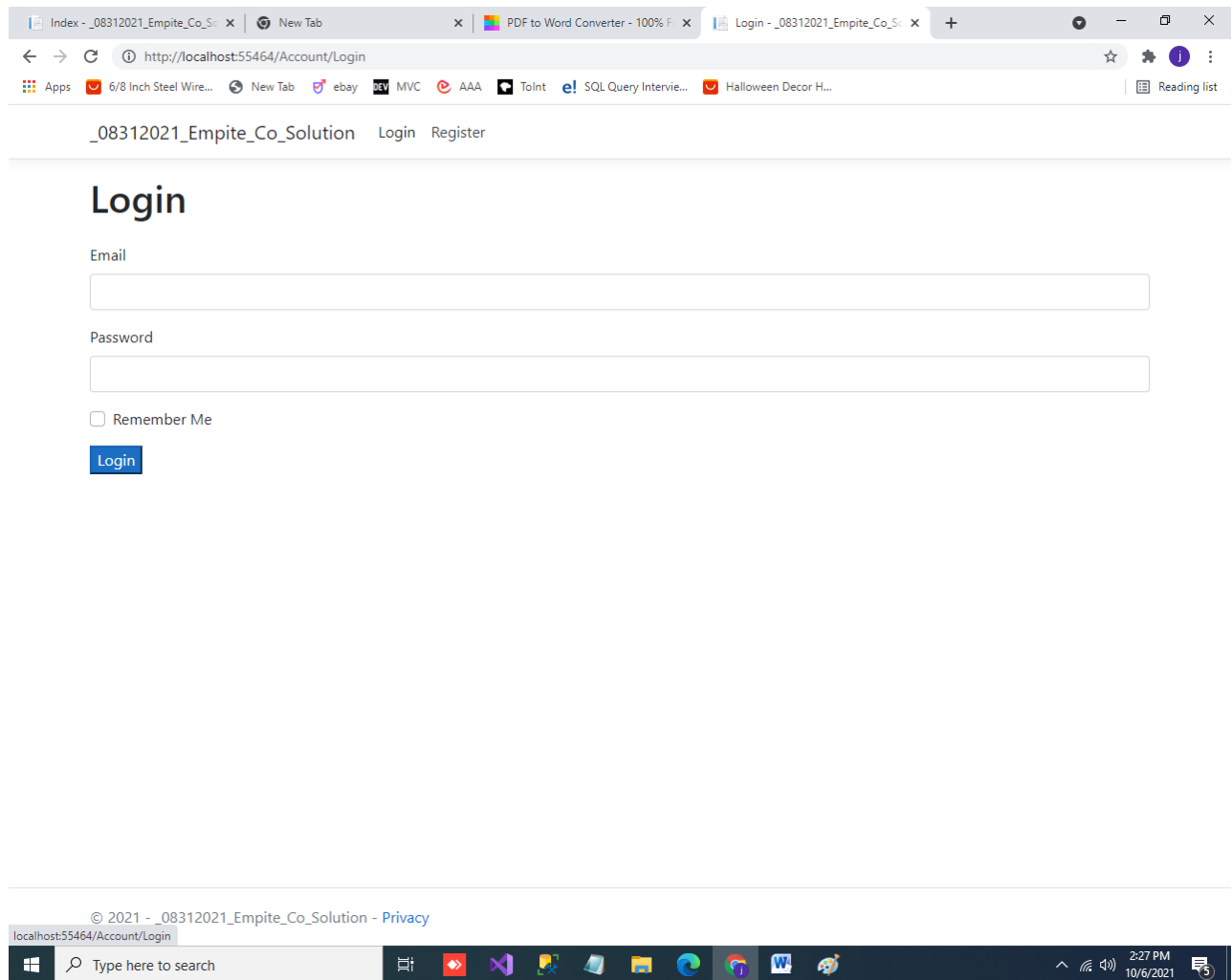
After running this,

Email

Password

Confirm Password

[Register](#)



So now application is working properly, Then I have added logout function too,

```
public async Task<IActionResult> Logout()
{
    await _signInManager.SignOutAsync();
    return RedirectToAction("Login");
}
```

After that I have modified _Layout.cshtml page to authorized the user

```
@if (User.Identity.IsAuthenticated)
{
    <ul class="navbar-nav flex-grow-1">
```

```

    @*<li class="nav-item">
        <a class="nav-link text-dark" asp-area="" asp-
controller="Home" asp-action="Index">Home</a>
    </li>
    <li class="nav-item">
        <a class="nav-link text-dark" asp-area="" asp-
controller="Home" asp-action="Privacy">Privacy</a>
    </li>*@

    <li class="nav-item">
        <a class="nav-link text-dark" asp-area="" asp-
controller="Products" asp-action="Index">Go to Inventory</a>
    </li>

    <li class="nav-item">
        <a class="nav-link text-dark" asp-area="" asp-
controller="Account" asp-action="Logout">Logout</a>
    </li>

</ul>
}
else
{

```

(I took this code from stack overflow)

Then finally I added `[Authorize]` notation hence this will facilitate my application, proper login sequence.

Finally I have bound the product page controller via asp controller view. Code is

```

<li class="nav-item">
    <a class="nav-link text-dark" asp-area="" asp-
controller="Products" asp-action="Index">Go to Inventory</a>
    //this will walk user to inventory
management page.

<li class="nav-item">
    <a class="nav-link text-dark" asp-area="" asp-
controller="Account" asp-action="Logout">Logout</a>
</li>

```

So finally this application work like follow,

When the beginning,

1. User need to log into system
2. If the user does not have login credential he/she need to create user name and password, then only he/she can access system,
3. Once after successful registration, a user will redirected to login page, then after it asking to provide login credential that he/she used to register,
4. If they are matched with stored he/she can access the system,
5. Otherwise

nope. Real screen

shots

The screenshot shows a web browser window with the address bar displaying 'http://localhost:55464/Account/Login'. The browser's tab bar shows several open tabs, including 'Index - _08312021_Empite_Co_S...', 'New Tab', 'PDF to Word Converter - 100% F...', and 'Login - _08312021_Empite_Co_S...'. The browser's address bar also shows a search bar and a 'Reading list' button. The page content includes a navigation bar with the text '_08312021_Empite_Co_Solution' and links for 'Login' and 'Register'. The main heading is 'Login'. Below the heading, there are two input fields: 'Email' with the value 'ABC@gmail.com' and 'Password' with a masked password '.....'. There is a checkbox labeled 'Remember Me' and a blue 'Login' button. The footer of the page shows '© 2021 - _08312021_Empite_Co_Solution - Privacy'. The Windows taskbar at the bottom shows the search bar, task view button, and several application icons, including Edge, Word, and Paint. The system clock shows '2:29 PM' and '10/6/2021'.

Index - _08312021_Empite_Co_S... x New Tab x PDF to Word Converter - 100% F... x Login - _08312021_Empite_Co_S... x

← → ↻ http://localhost:55464/Account/Login ☆ ⚙ ⓘ ⋮

Apps 6/8 Inch Steel Wire... New Tab ebay DEV MVC AAA Tolnt e! SQL Query Intervie... Halloween Decor H... Reading list

_08312021_Empite_Co_Solution Login Register

Login

Email

Password

☐ Remember Me

Login

© 2021 - _08312021_Empite_Co_Solution - Privacy

Windows search bar: Type here to search

Taskbar icons: Edge, Word, Paint, etc.

System clock: 2:29 PM 10/6/2021

_08312021_Empite_Co_Solution Login Register

Login

• Invalid Login Attempt

Email

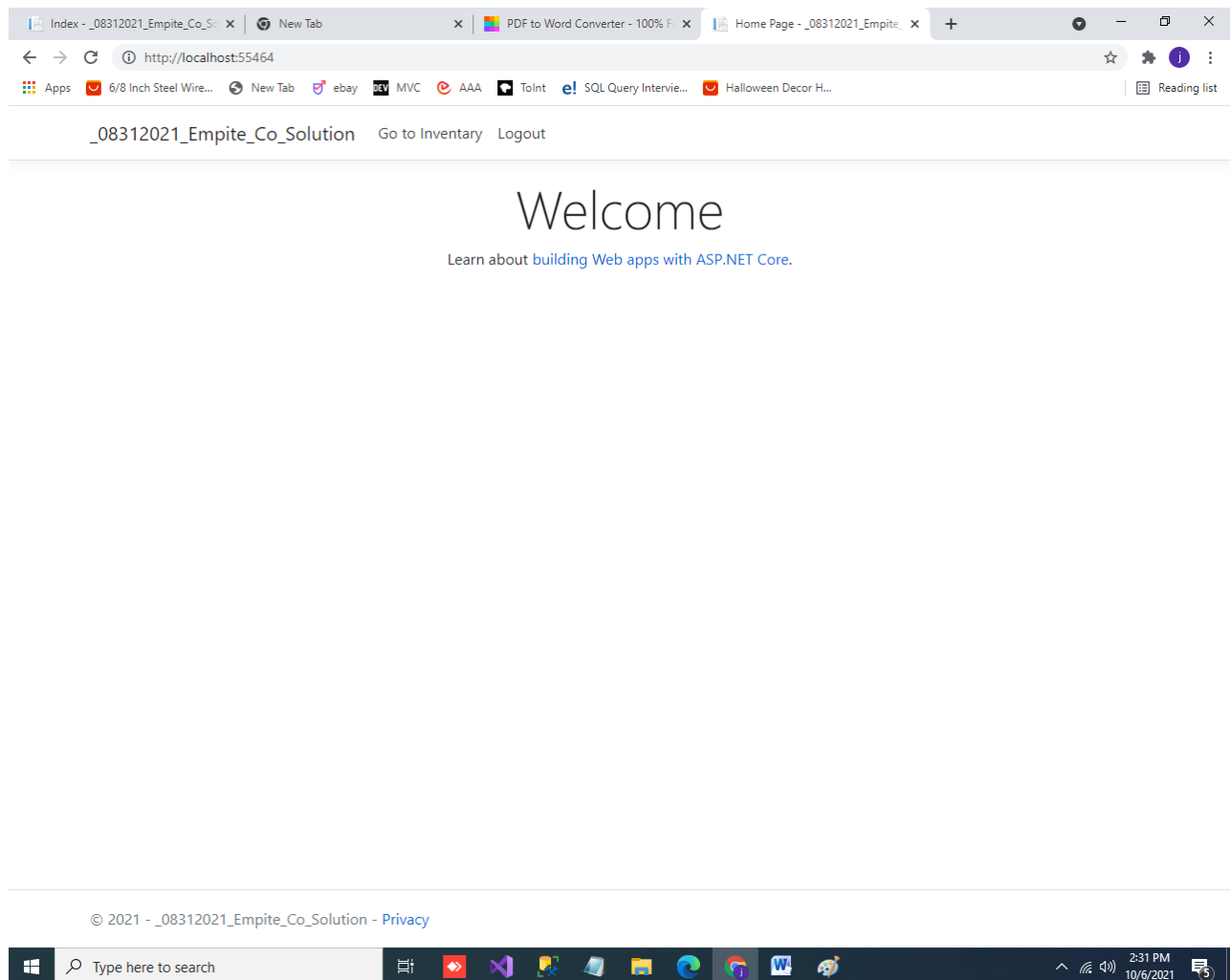
ABC@gmail.com

Password

☐ Remember Me

Login

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Limitations!

I have made this project with single user with all administrative privileges,