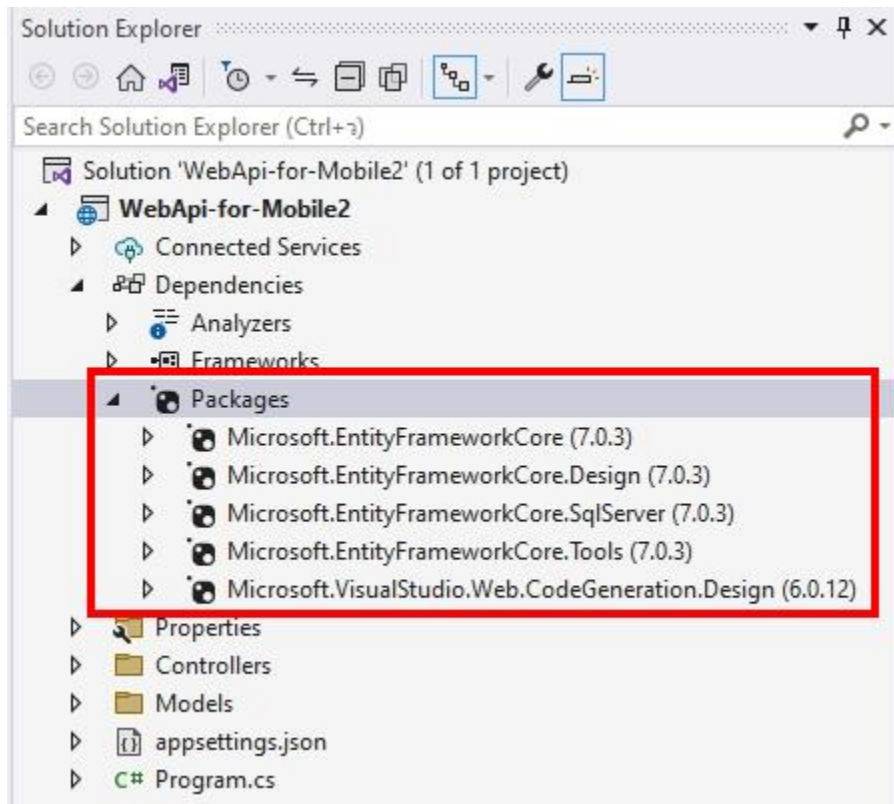
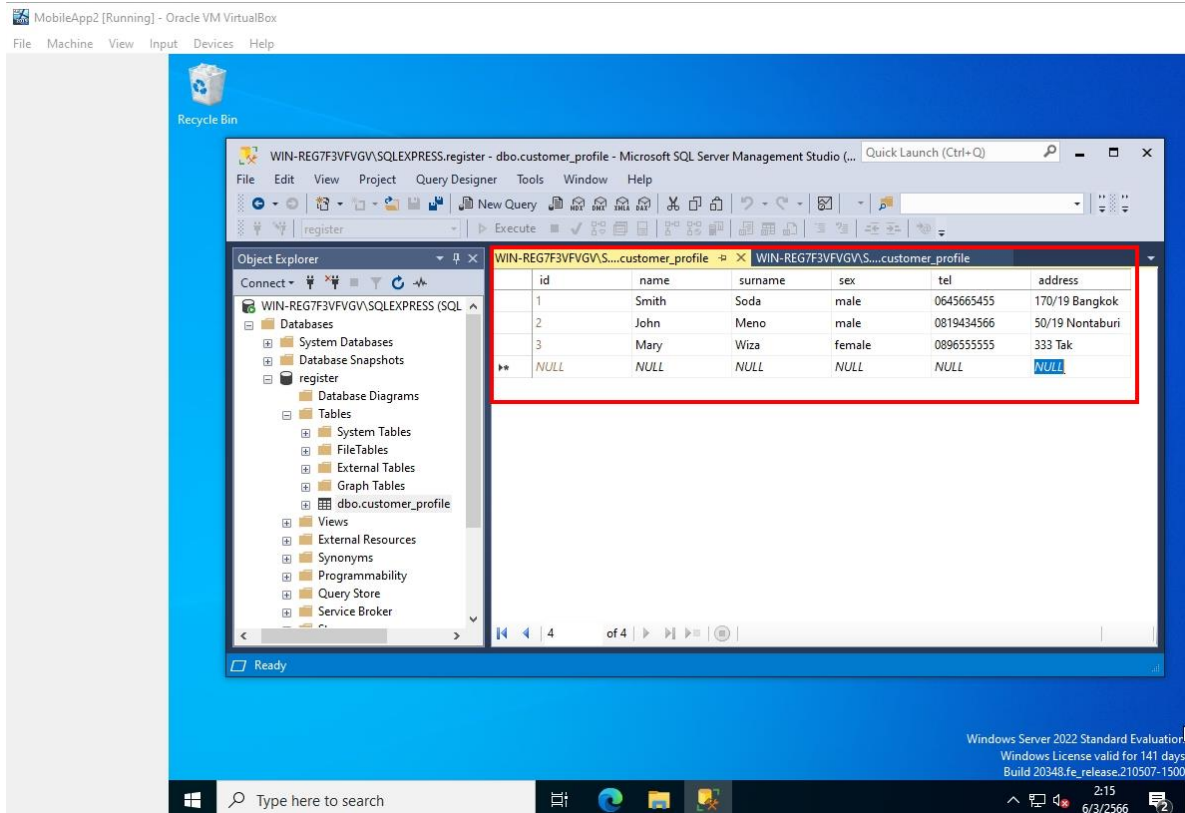
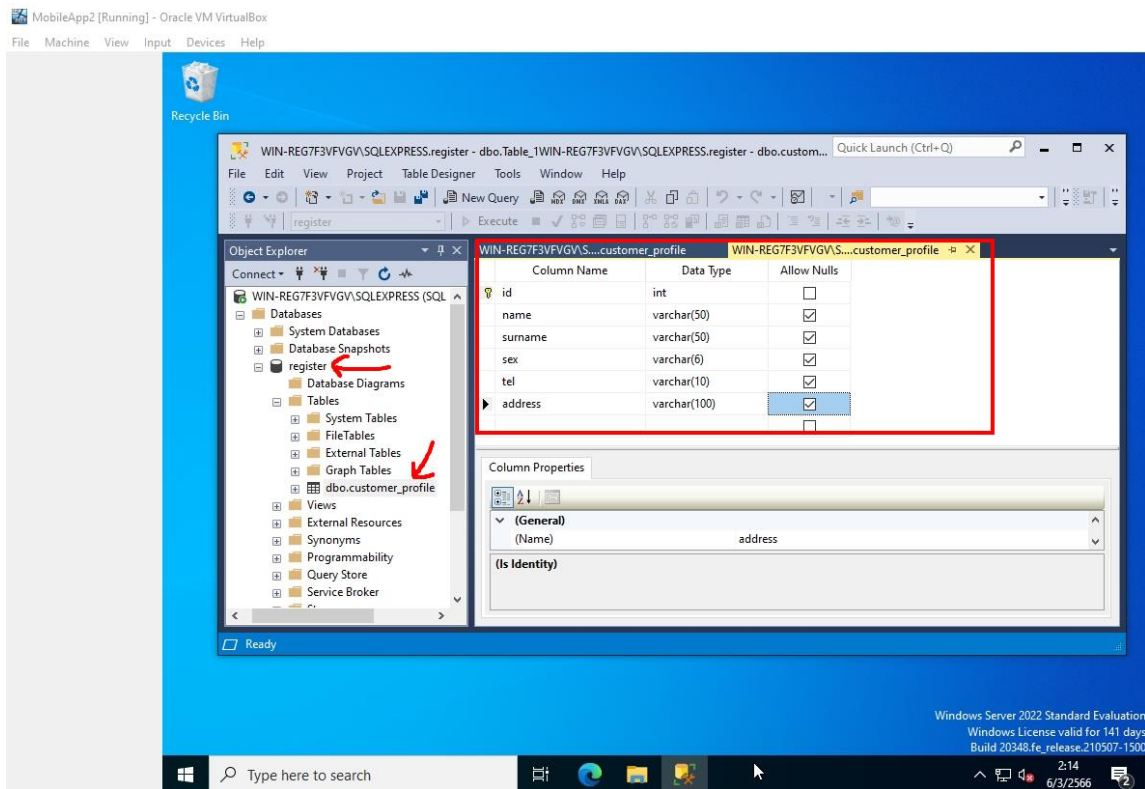


Create Web API and Connect to SQL Server.

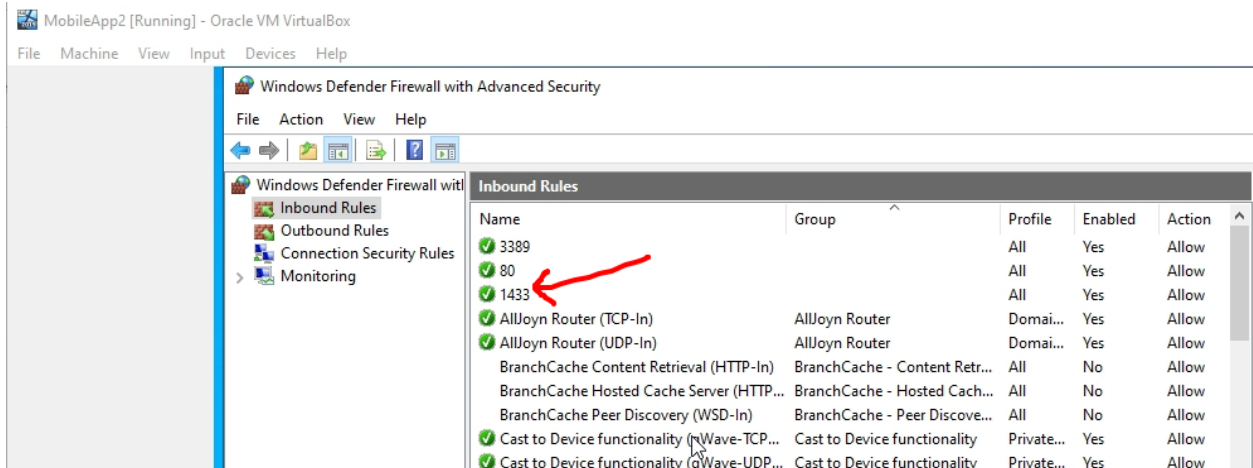
1. Install the following packages.



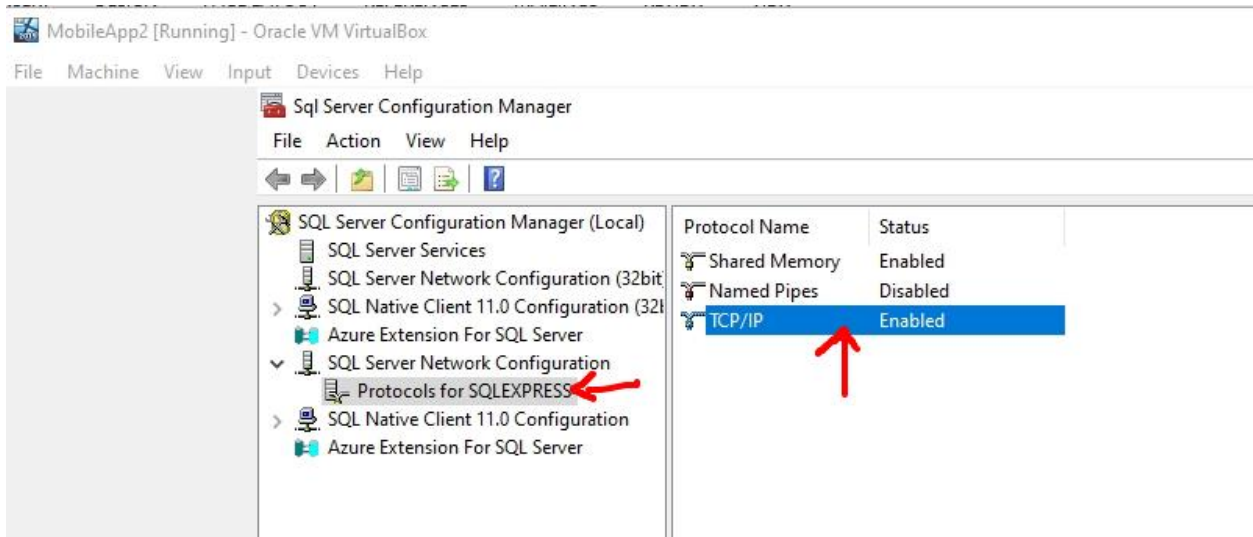
2. Create the database and table and also add the sample data to the table.



3. Open 1433 port in Windows firewall on Windows Server 2022.



4. Enable IP and Port SQL Server on Windows Server 2022.



Sql Server Configuration Manager

File Action View Help



- SQL Server Configuration Manager (Local)
 - SQL Server Services
 - SQL Server Network Configuration (32bit)
 - SQL Native Client 11.0 Configuration (32bit)
 - Azure Extension For SQL Server
 - SQL Server Network Configuration
 - Protocols for SQLEXPRESS
 - SQL Native Client 11.0 Configuration
 - Azure Extension For SQL Server

Protocol Name	Status
Shared Memory	Enabled

TCP/IP Properties

Protocol

IP Addresses

TCP Dynamic Ports	0
TCP Port	
<input checked="" type="checkbox"/> IP3	
Active	Yes
Enabled	No
IP Address	:::1
TCP Dynamic Ports	0
TCP Port	
<input checked="" type="checkbox"/> IP4	
Active	Yes
Enabled	No
IP Address	127.0.0.1
TCP Dynamic Ports	0
TCP Port	
<input checked="" type="checkbox"/> IPAll	
TCP Dynamic Ports	
TCP Port	1433

Active
 Indicates whether the selected IP Address is active.

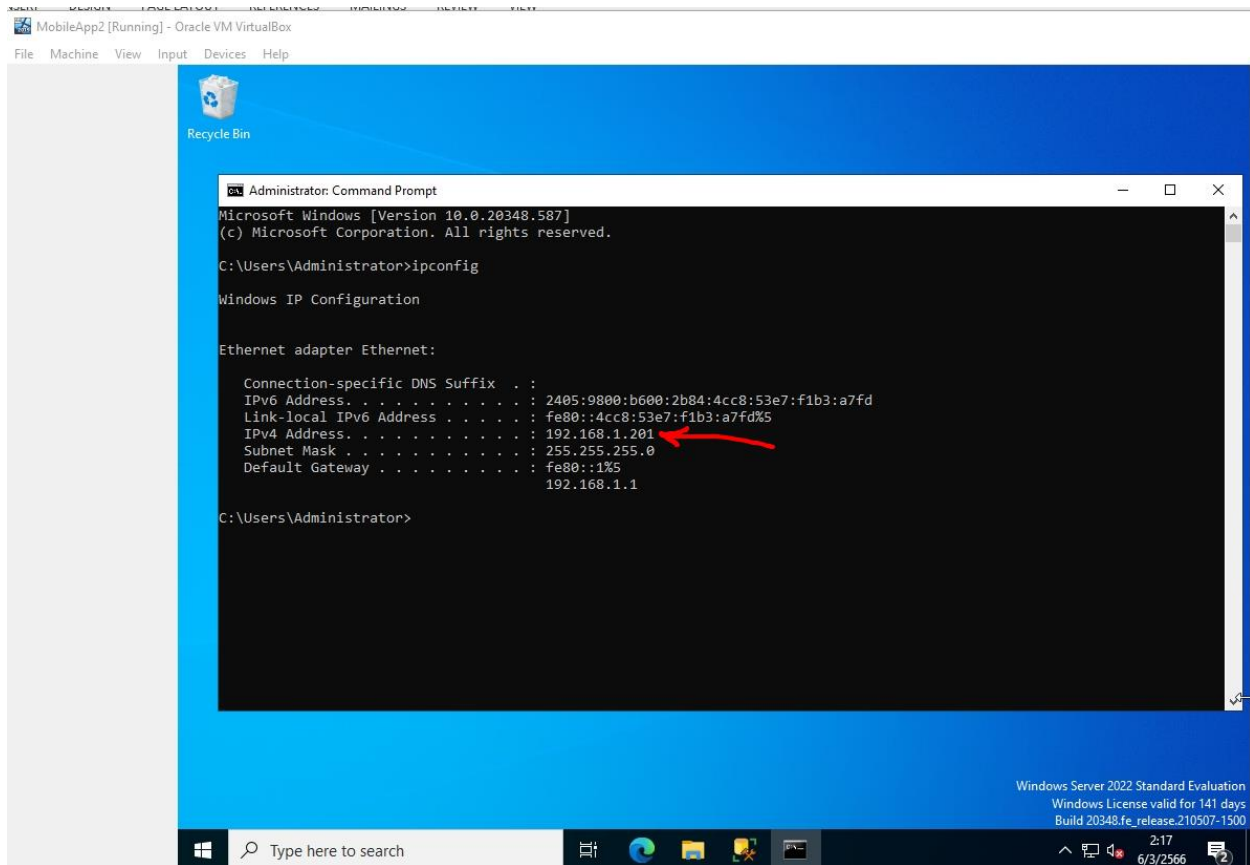
OK

Cancel

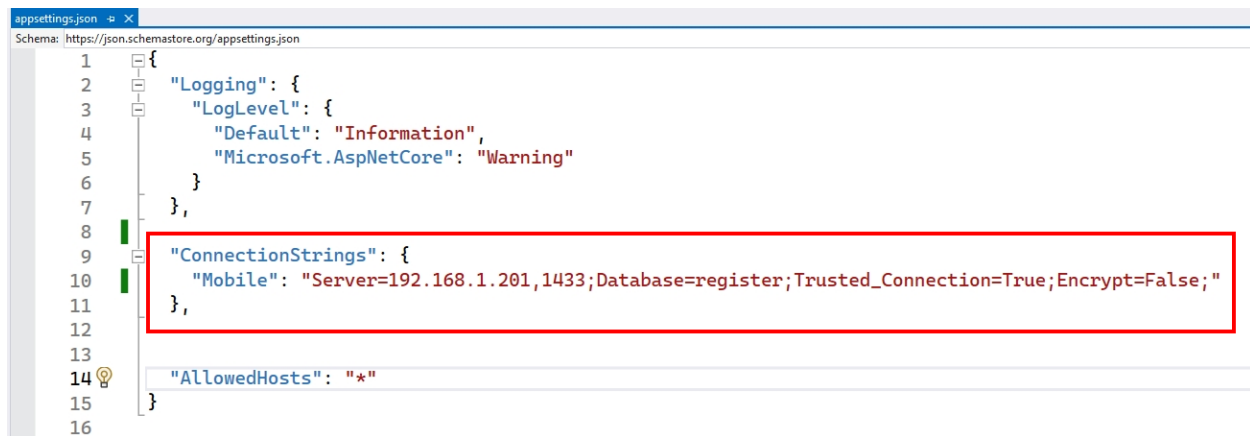
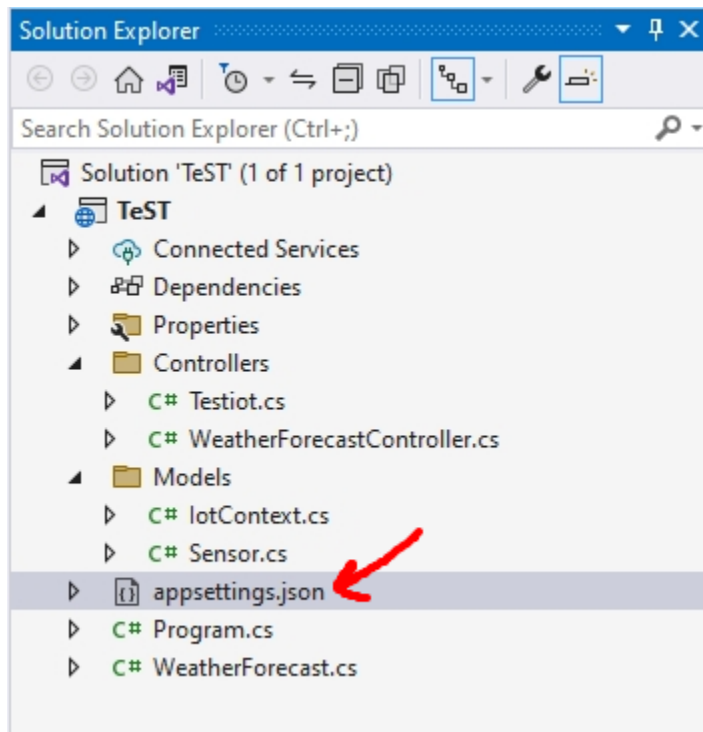
Apply

Help

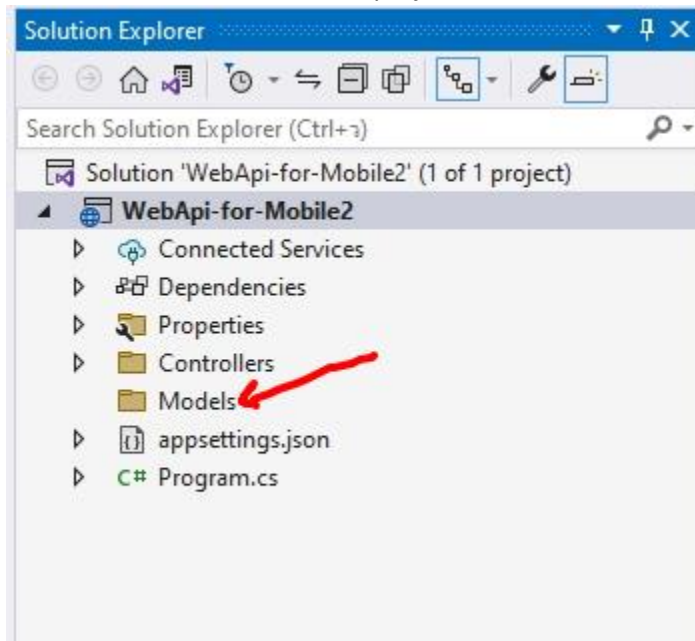
5. Check IP Address on Windows Server 2022.



6. Create the Connection Strings in appsettings.json



7. Create “Models” folder on the project.



8. Using Scaffold-DbContext for building class files which are connected to the database.

```
Package Manager Console
Package source: All
Default project: WebApi-for-Mobile2

PM> Scaffold-DbContext 'Server=192.168.1.201,1433;Initial Catalog=register;Persist Security Info=False;User
ID=sa;Password=1234;MultipleActiveResultSets=true;Encrypt=false;TrustServerCertificate=False;Connection
Timeout=30;' Microsoft.EntityFrameworkCore.SqlServer -OutputDir Models

Build started...
Build succeeded.

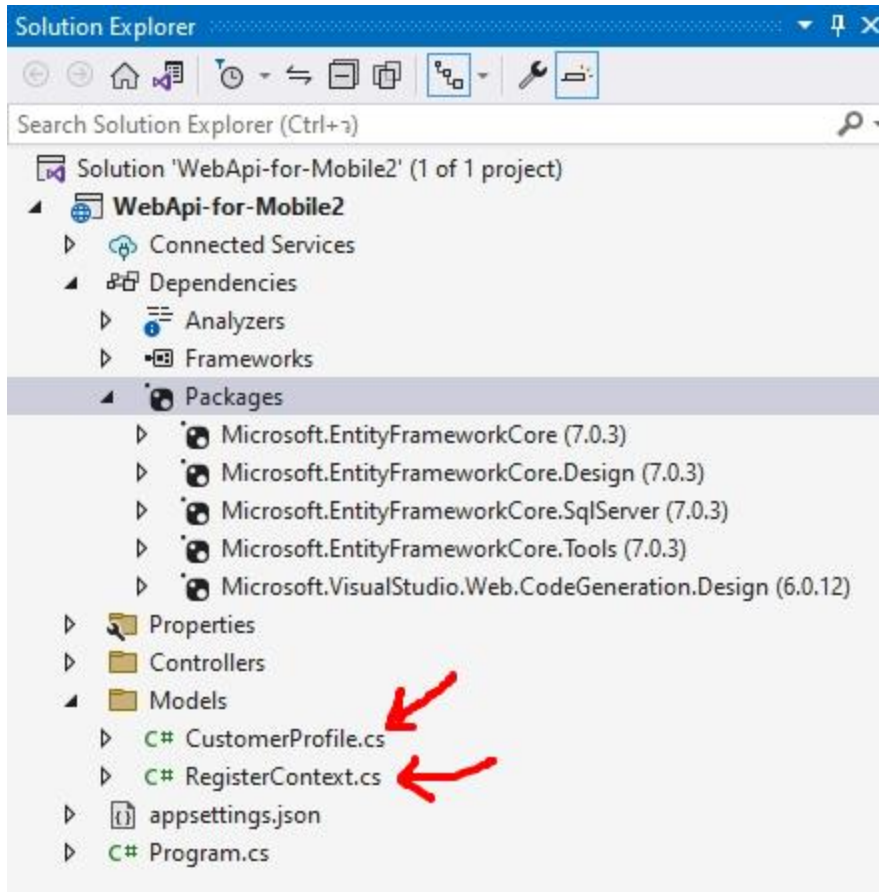
To protect potentially sensitive information in your connection string, you should move it out of source code.
You can avoid scaffolding the connection string by using the Name= syntax to read it from configuration - see
https://go.microsoft.com/fwlink/?linkid=2131148. For more guidance on storing connection strings, see http://
go.microsoft.com/fwlink/?LinkId=723263.

PM>
```

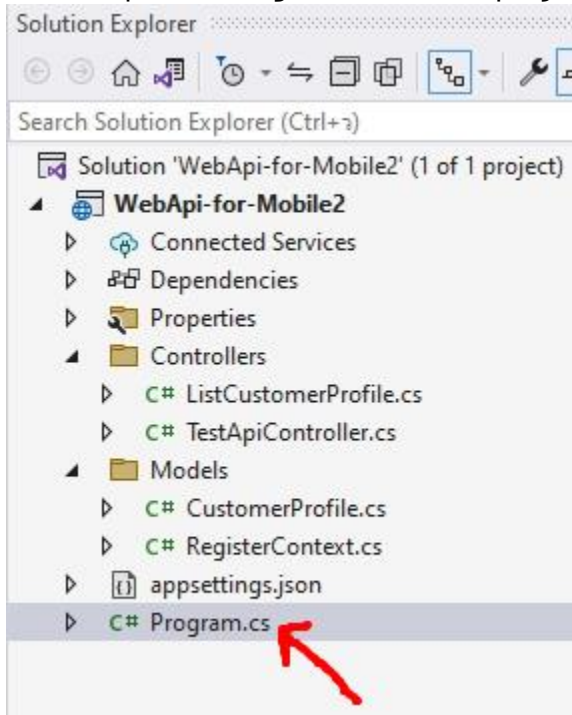
You can copy the following script below.

```
Scaffold-DbContext 'Server=192.168.1.201,1433;Initial Catalog=register;Persist
Security Info=False;User
ID=sa;Password=1234;MultipleActiveResultSets=true;Encrypt=false;TrustServerCertifica
te=False;Connection Timeout=30;' Microsoft.EntityFrameworkCore.SqlServer -OutputDir
Models
```


After the script is ran, the class files will be build

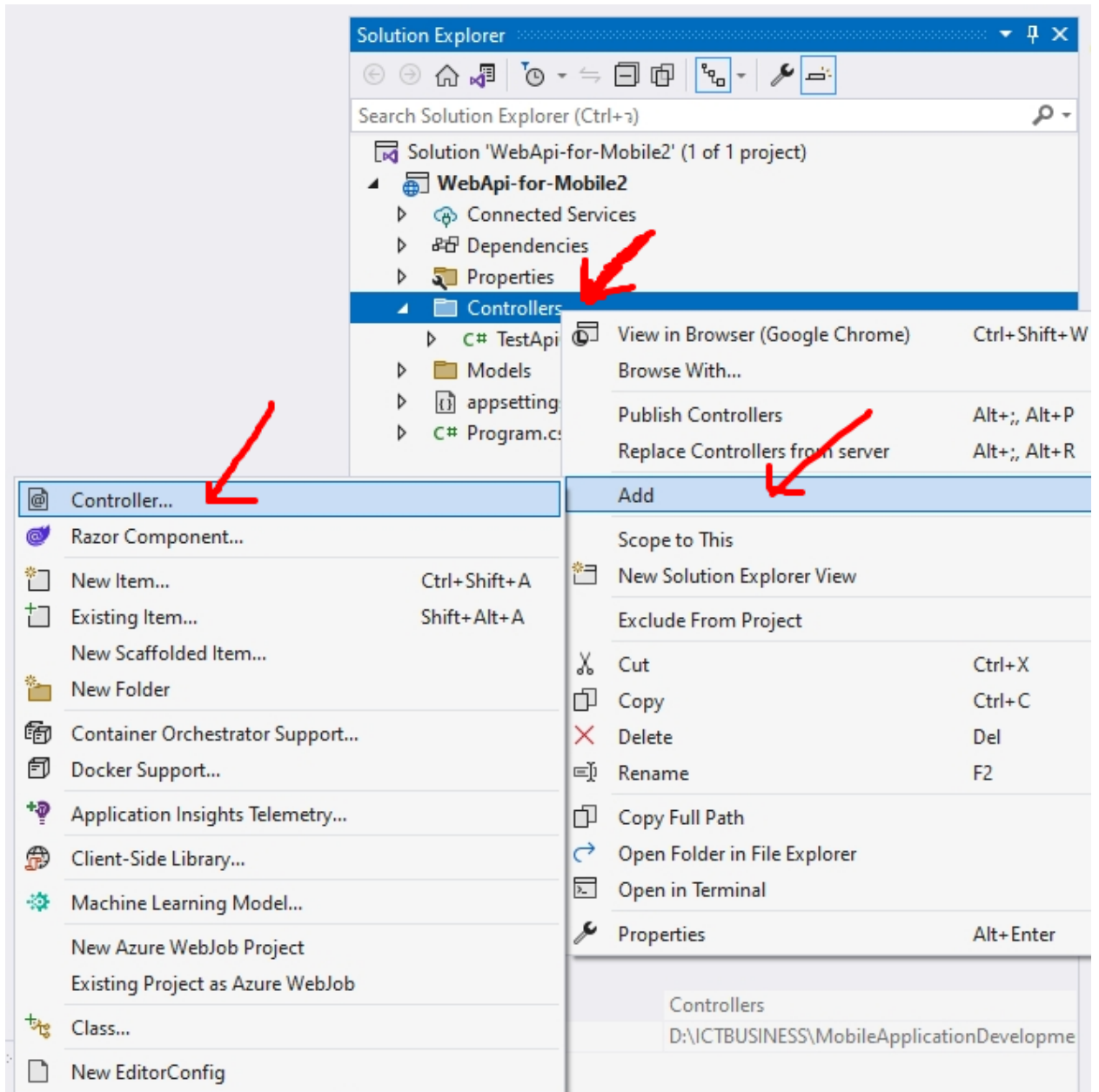


9. Add scripts to Program.cs on the project.

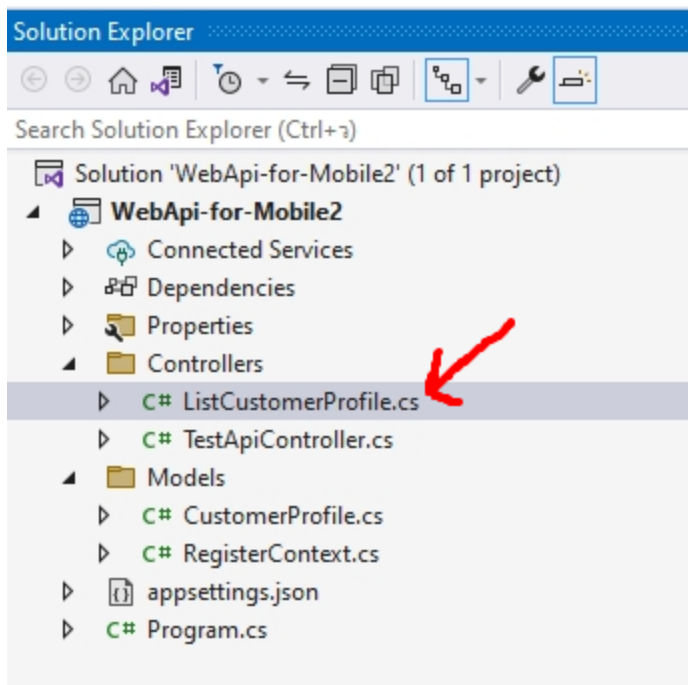
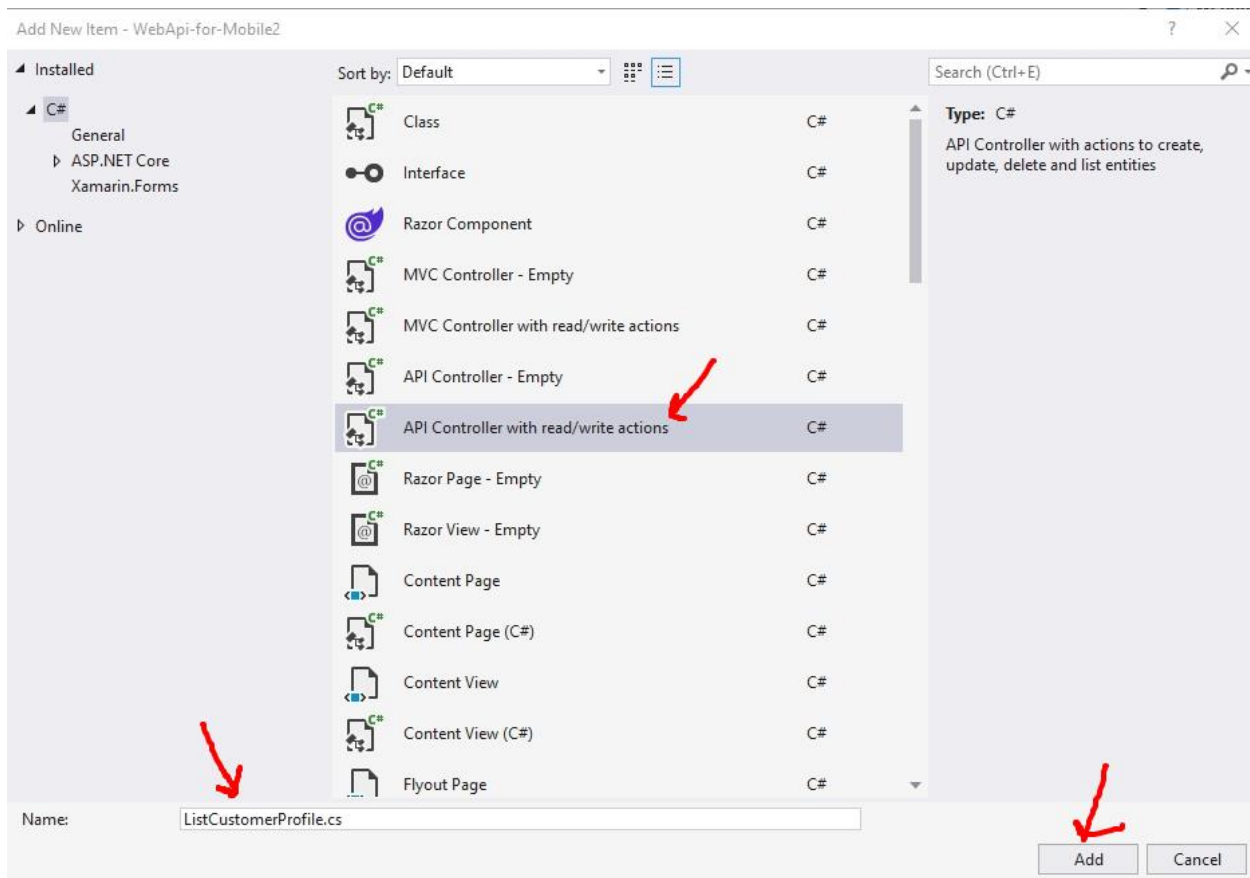


```
1 using Microsoft.EntityFrameworkCore;
2 using WebApi_for_Mobile2.Models;
3
4 var builder = WebApplication.CreateBuilder(args);
5
6 // Add services to the container.
7 builder.Services.AddControllersWithViews();
8
9 builder.Services.AddDbContext<RegisterContext>(options => options.UseSqlServer(builder.Configuration.GetConnectionString("Mobile")));
10
11 var app = builder.Build();
12
13 // Configure the HTTP request pipeline.
14 if (!app.Environment.IsDevelopment())
15 {
16     app.UseExceptionHandler("/Home/Error");
17     // The default HSTS value is 30 days. You may want to change this for production scenarios, see https://aka.ms/aspnetcore-hsts.
18     app.UseHsts();
19 }
20
21 app.UseHttpsRedirection();
22
23 app.UseAuthorization();
24
25 app.MapControllers();
26
27 app.Run();
28
```

10. Create Web API that can query data from database.



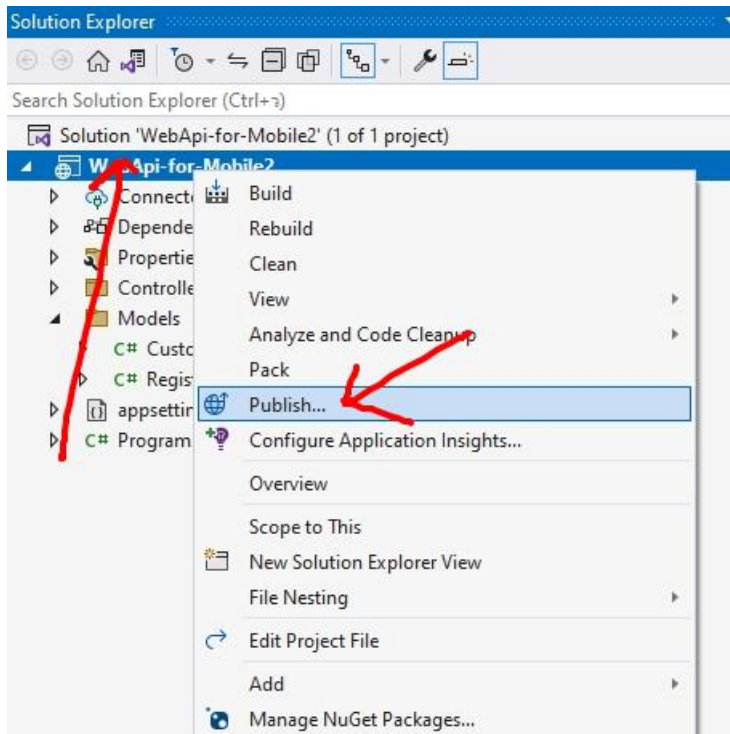
The screenshot shows the ASP.NET Core scaffolding tool interface. On the left, the 'Installed' section is expanded, showing 'Common' and 'MVC'. Under 'MVC', 'API' is selected, indicated by a red arrow. The main area displays a list of scaffolding templates. The first template, 'API Controller with read/write actions', is highlighted, and a red arrow points to it. To the right of this template, a description is provided: 'API Controller with read/write actions by Microsoft v1.0.0.0. An API controller with REST actions to create, read, update, delete, and list entities. Id: ApiControllerWithActionsScaffolder'. At the bottom right, there are 'Add' and 'Cancel' buttons, with a red arrow pointing to the 'Add' button.



```
ListCustomerProfile.cs
WebApi-for-Mobile2
WebApi_for_Mobile2.Controllers.ListCustomerProfile
Get()

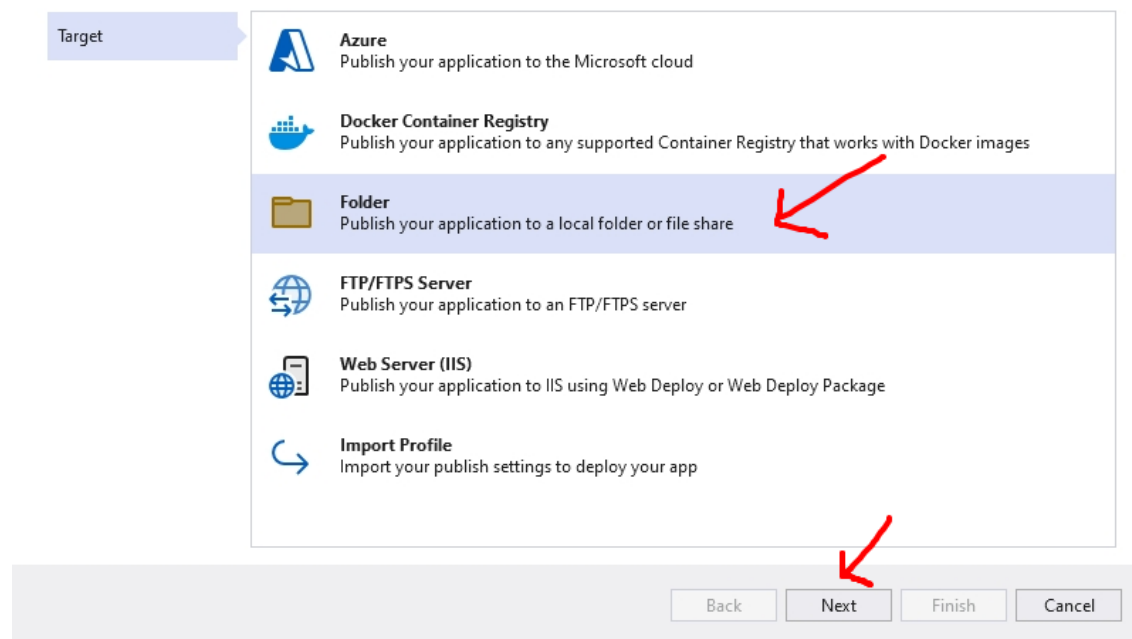
2  using Microsoft.EntityFrameworkCore;
3  using Microsoft.Extensions.Hosting;
4  using WebApi_for_Mobile2.Models;
5
6  namespace WebApi_for_Mobile2.Controllers
7  {
8      [Route("api/[controller]")]
9      [ApiController]
10     public class ListCustomerProfile : ControllerBase
11     {
12         private readonly RegisterContext _context;
13         public ListCustomerProfile(RegisterContext context)
14         {
15             _context = context;
16         }
17
18         // GET: api/<ListCustomerProfile>
19         [HttpGet]
20         public IEnumerable<CustomerProfile> Get()
21         {
22             return _context.CustomerProfiles;
23         }
24
25         //GET api/<ListCustomerProfile>/5
26         [HttpGet("{id}")]
27         public CustomerProfile Get(int id)
28         {
29             return _context.CustomerProfiles.FirstOrDefault(s => s.Id == id);
30         }
31     }
32 }
33
```

11. Publish the project to Windows Server 2022



Publish

Where are you publishing today?





Publish

Provide the path to a local or network folder

Target

Folder location

bin\Release\net6.0\publish\

Browse...

Location

For local folders you can provide either a full path or a relative path to the project, for example:

- publish\ (relative path)
- C:\Users\Username\Documents (full path)

For network folders you have to use \\ and then either the computer name or IP address, for example:

- \\server1\fileshare1
- \\192.168.1.17\fileshare1

Back

Next

Finish

Cancel



Publish profile creation progress

Target

Location

Finish

✓ Publish profile 'D:\ICTBUSINESS\MobileApplicationDevelopment\WebApi-for-Mobile2\Properties\PublishProfiles\FolderProfile2.pubxml' created.

☐ Automatically close when succeeded

Back

Next

Close

Cancel

FolderProfile2.pubxml

Folder

Publish

+ New

More actions

Ready to publish.

Settings

Target location

bin\Release\net6.0\publish\

Delete existing files

false


Configuration


Release

Target Runtime

Portable


Show all settings

 FolderProfile2.pubxml ▾
Folder

 New

More actions ▾

Success now




Publish succeeded on 6/3/2566 at 18:55.


[Open folder](#)

Settings


Target location

bin\Release\net6.0\publish\ 


Delete existing files

false 

Configuration

Release 

Target Runtime



Portable 

[Show all settings](#)

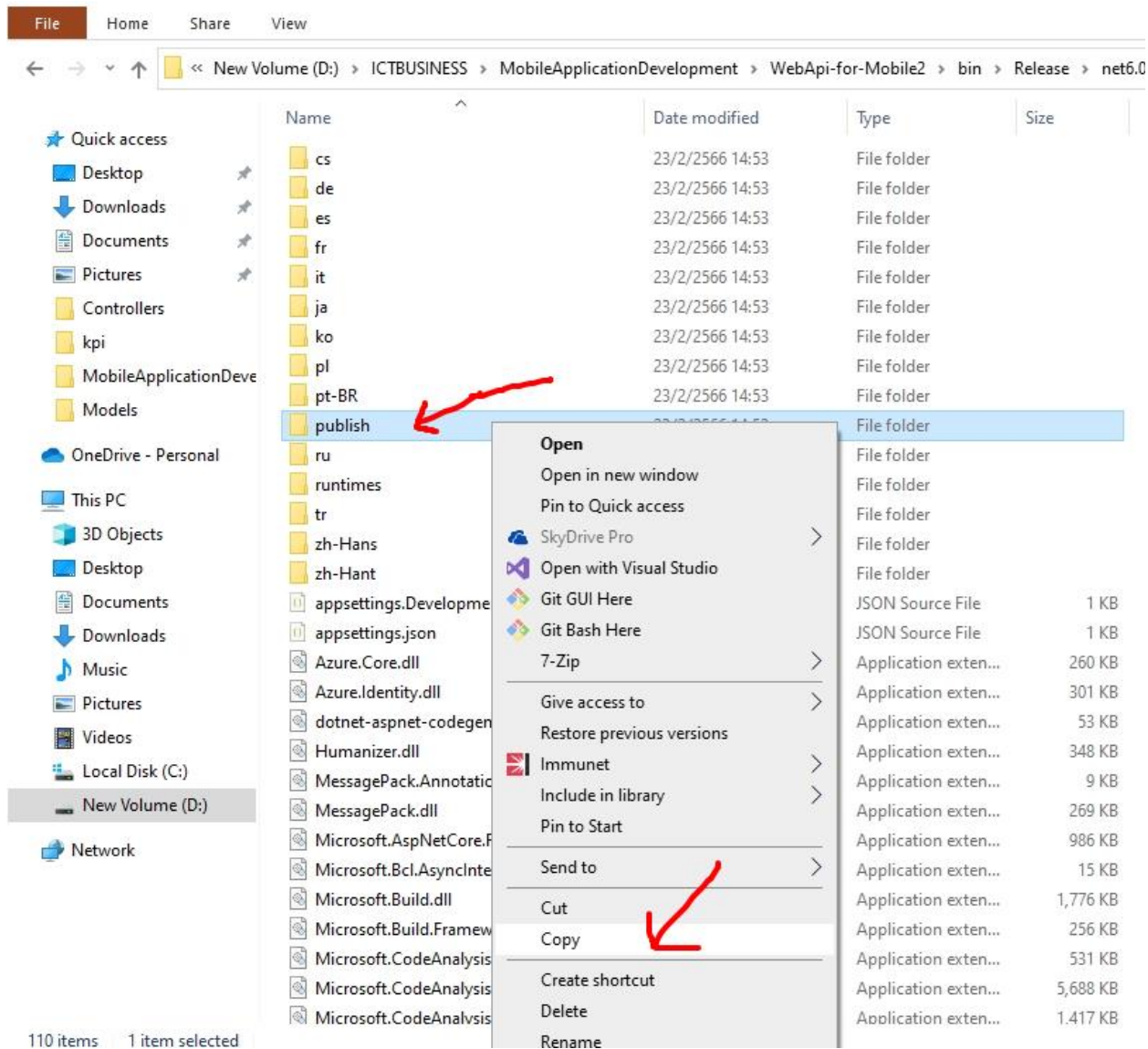
net6.0

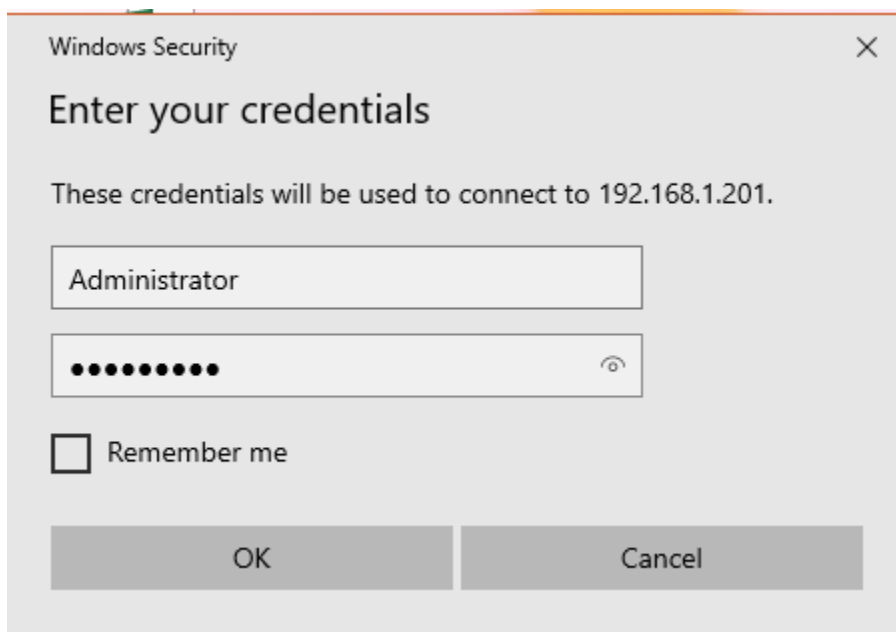
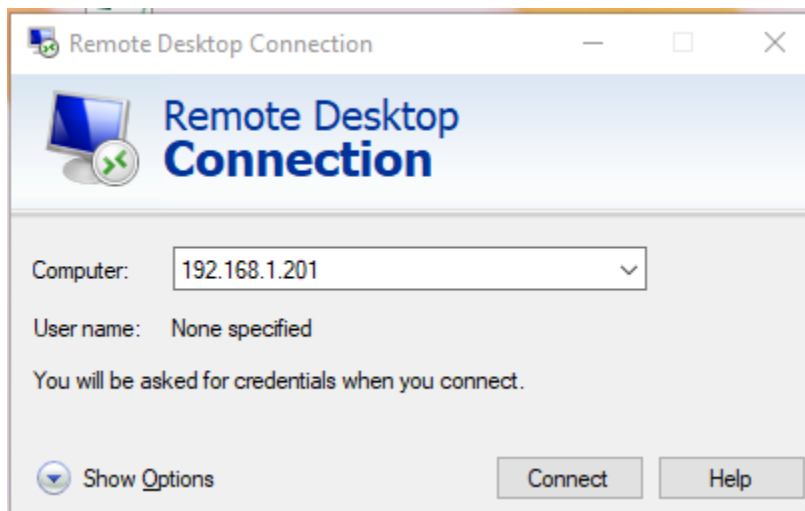
File Home Share View

← → ▾ ↑ << New Volume (D:) > ICTBUSINESS > MobileApplicationDevelopment > WebApi-for-Mobile2 > bin > Release > net6.0

	Name	Date modified	Type	Size
 Quick access	cs	23/2/2566 14:53	File folder	
	de	23/2/2566 14:53	File folder	
	es	23/2/2566 14:53	File folder	
	fr	23/2/2566 14:53	File folder	
	it	23/2/2566 14:53	File folder	
	ja	23/2/2566 14:53	File folder	
	ko	23/2/2566 14:53	File folder	
	pl	23/2/2566 14:53	File folder	
	pt-BR	23/2/2566 14:53	File folder	
	publish	23/2/2566 14:53	File folder	
	ru	23/2/2566 14:53	File folder	
	runtimes	23/2/2566 14:53	File folder	
	tr	23/2/2566 14:53	File folder	
	zh-Hans	23/2/2566 14:53	File folder	
	zh-Hant	23/2/2566 14:53	File folder	
 OneDrive - Personal	appsettings.Development.json	9/2/2566 15:22	JSON Source File	1 KB
	appsettings.json	6/3/2566 16:54	JSON Source File	1 KB
	Azure.Core.dll	5/4/2565 4:38	Application exten...	260 KB

copy this folder to Windows Server 2022







Remote Desktop Connection



The identity of the remote computer cannot be verified. Do you want to connect anyway?

The remote computer could not be authenticated due to problems with its security certificate. It may be unsafe to proceed.

Certificate name



Name in the certificate from the remote computer:

WIN-REG7F3VFVGV

Certificate errors

The following errors were encountered while validating the remote computer's certificate:



The certificate is not from a trusted certifying authority.

Do you want to connect despite these certificate errors?

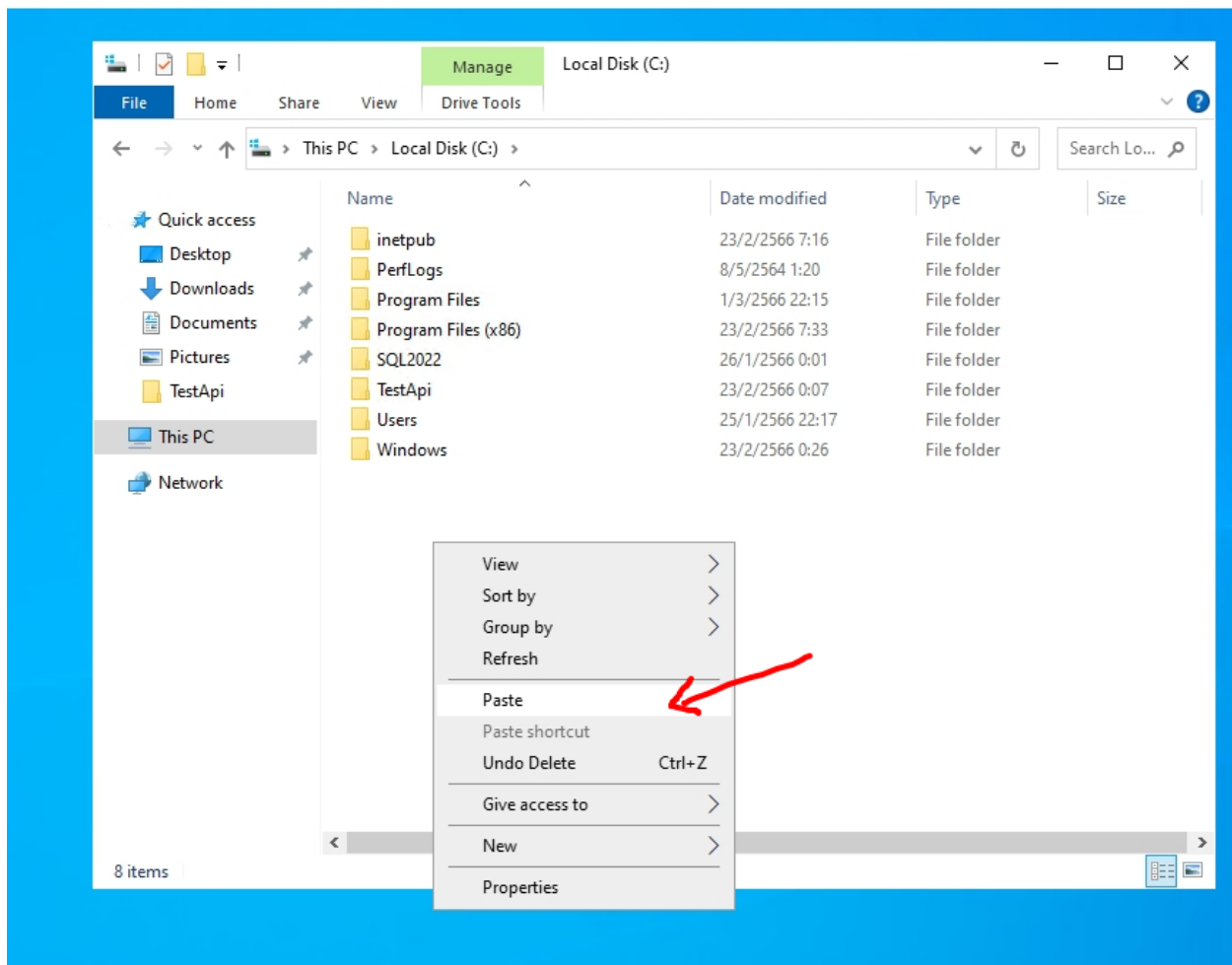
☐

Don't ask me again for connections to this computer

View certificate...

Yes

No



192.168.1.201 - Remote Desktop Connection

Local Disk (C:)

File

Home

Share

View

Drive Tools

←

→

⌵

⬆

This PC > Local Disk (C:)

★ Quick access

Desktop

Downloads

Documents

Pictures

TestApi

This PC

Network

Name	Date modified	Type
inetpub	6/3/2566 4:45	File folder
PerfLogs	8/5/2564 1:20	File folder
Program Files	6/3/2566 4:54	File folder
Program Files (x86)	23/2/2566 7:33	File folder
SQL2022	26/1/2566 0:01	File folder
TestApi	23/2/2566 0:07	File folder
Users	25/1/2566 22:17	File folder
Windows	23/2/2566 0:26	File folder
publish	6/3/2566 5:23	File folder

Copying...

Co...\Microsoft.CodeAnalysis.Workspaces.resources.dll

To 'C:\'

About 5 seconds remaining

Cancel

192.168.1.201 - Remote Desktop Connection



File Home Share View Manage Local Disk (C:)
Drive Tools

← → ▾ ↑ > This PC > Local Disk (C:)

★ Quick access

Desktop

Downloads

Documents

Pictures

TestApi

This PC

Network

Name

inetpub
PerfLogs
Program Files
Program Files (x86)
SQL2022
TestApi
Users
Windows
publish

Date modified

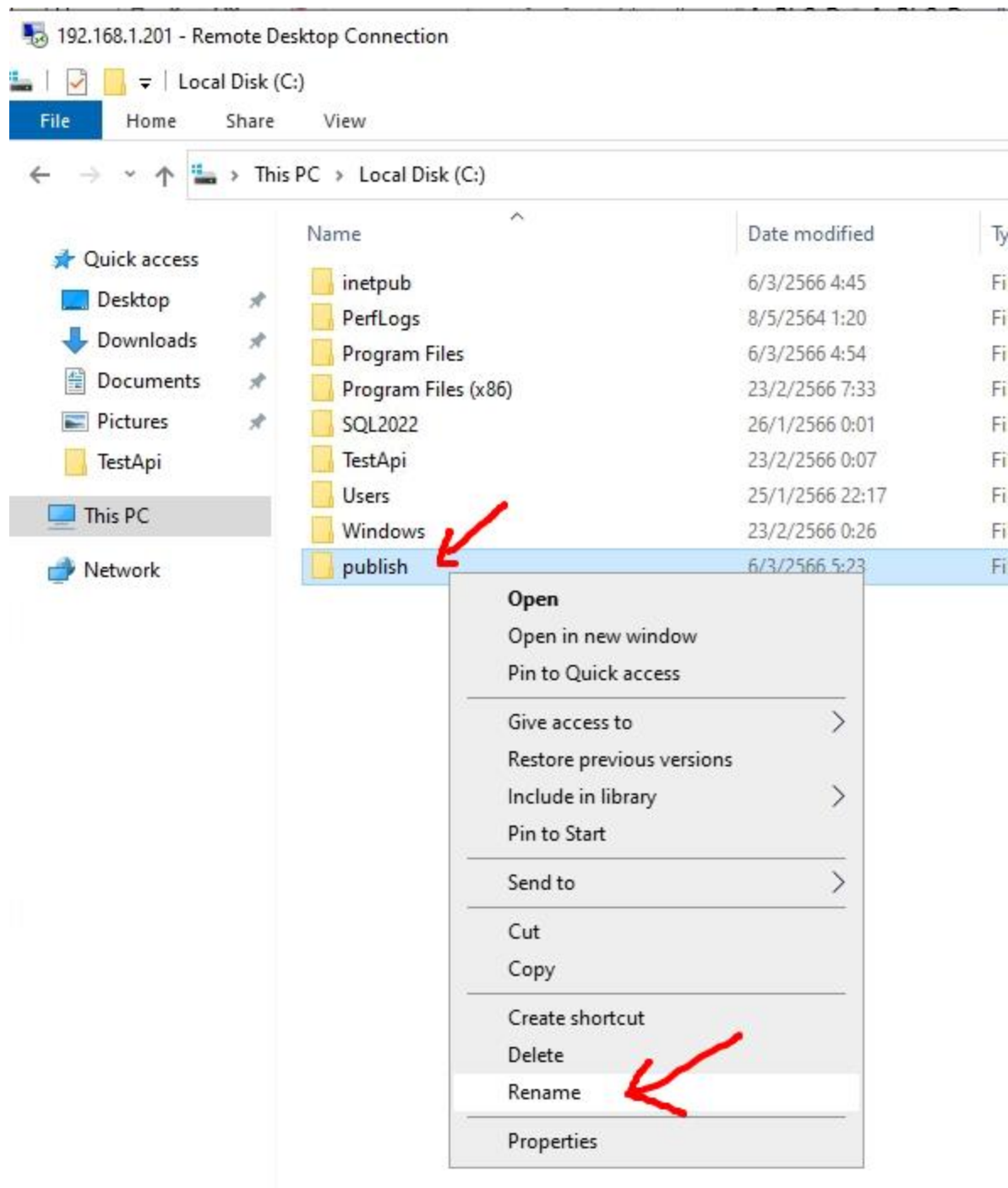
6/3/2566 4:45
8/5/2564 1:20
6/3/2566 4:54
23/2/2566 7:33
26/1/2566 0:01
23/2/2566 0:07
25/1/2566 22:17
23/2/2566 0:26
6/3/2566 5:23

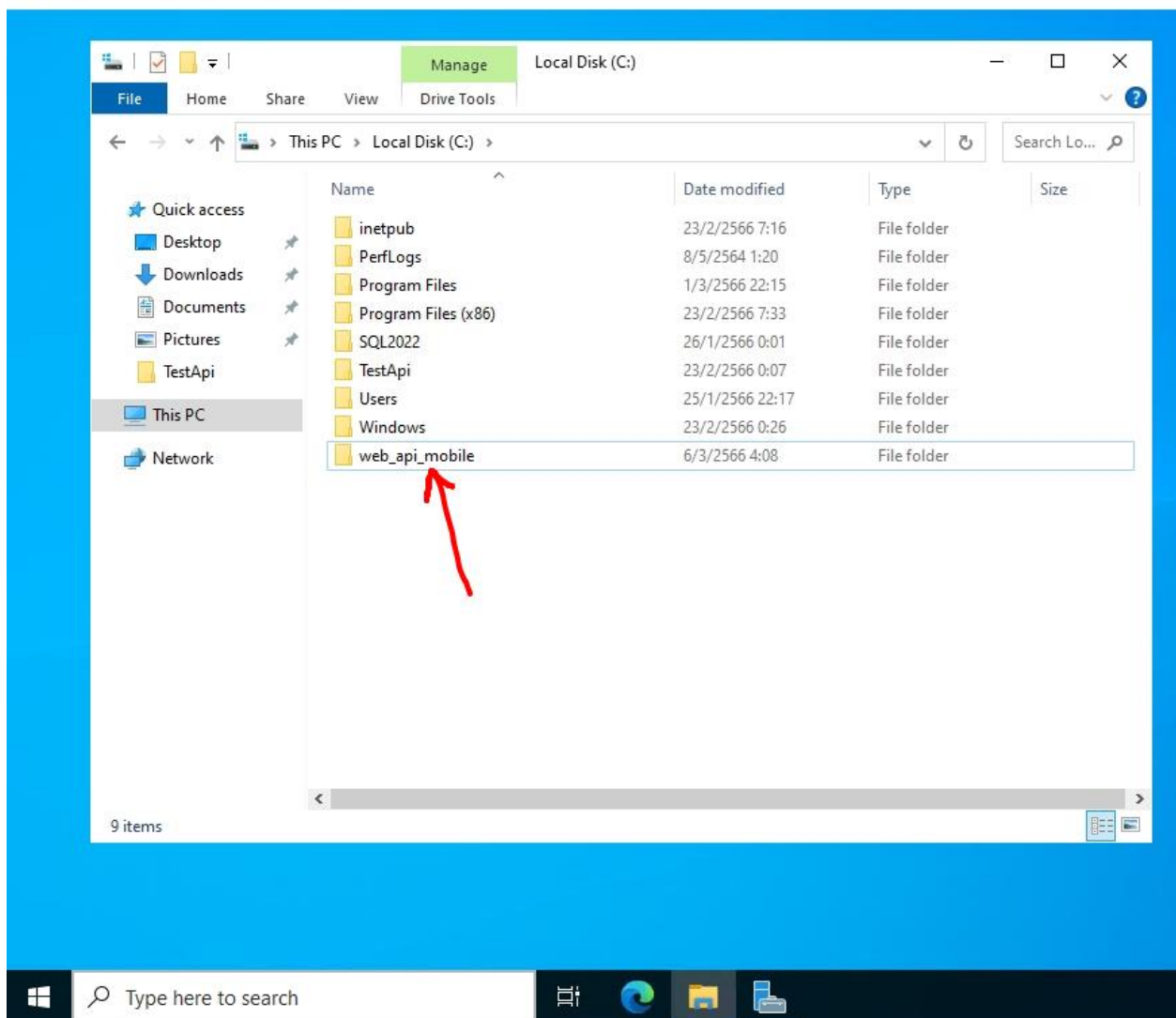
Type

File folder
File folder
File folder
File folder
File folder
File folder
File folder
File folder
File folder

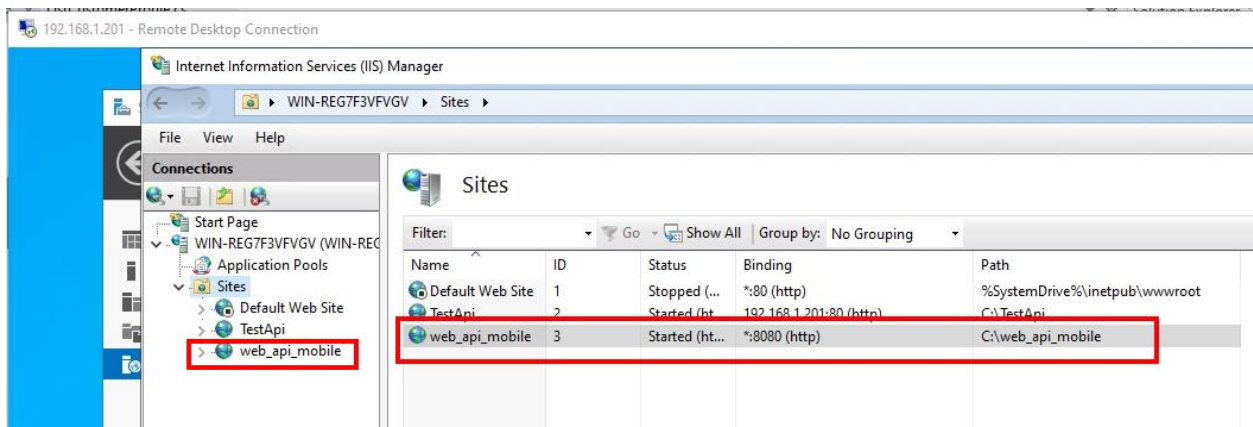
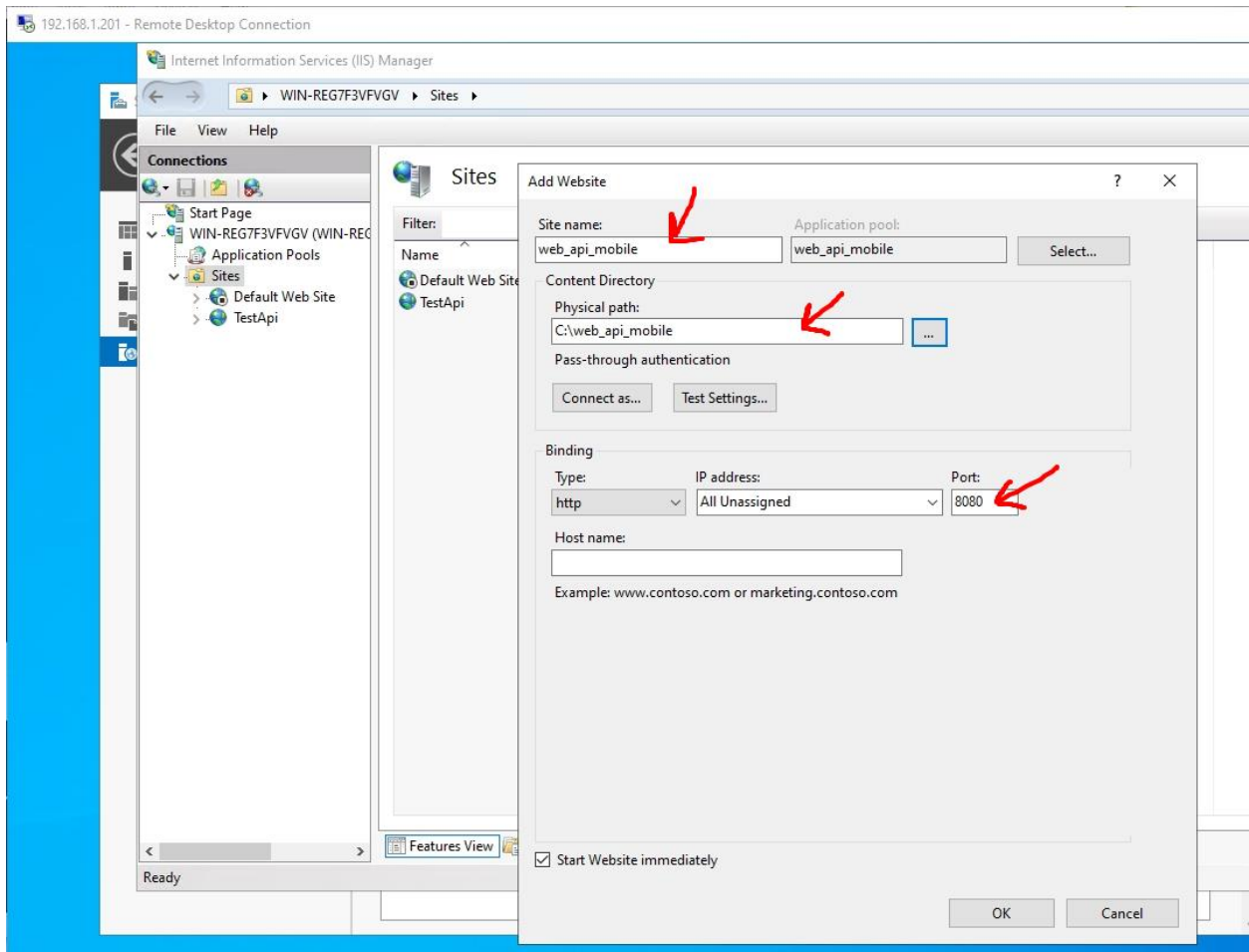


Rename it

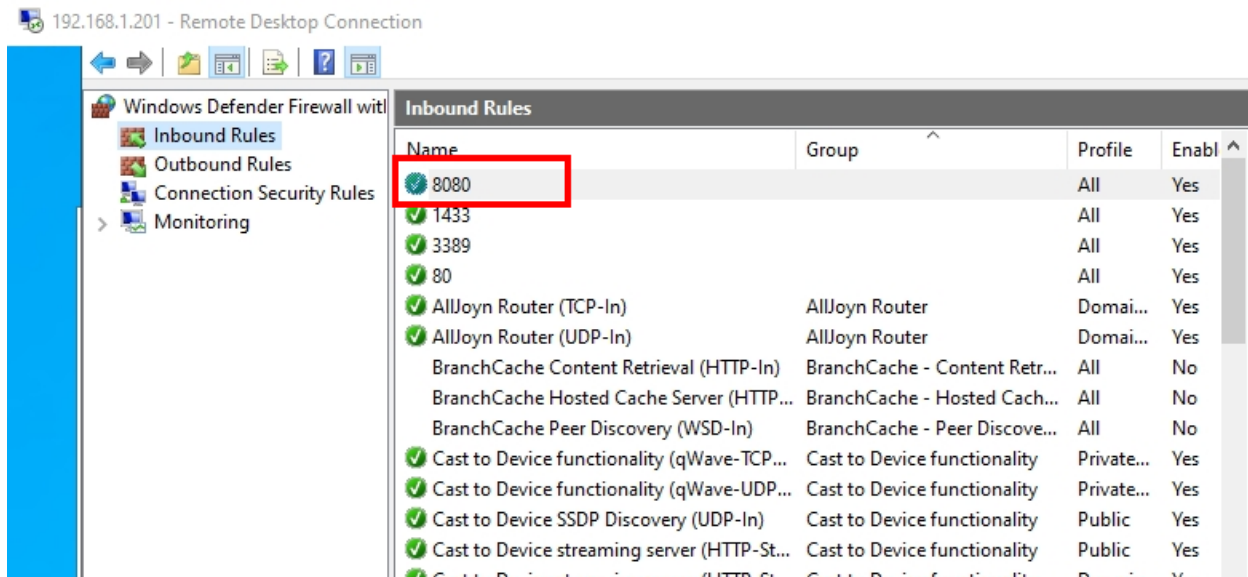




12. Add to IIS web server and also define 8080 port for web api.



13. Open 8080 port on Windows Server 2022

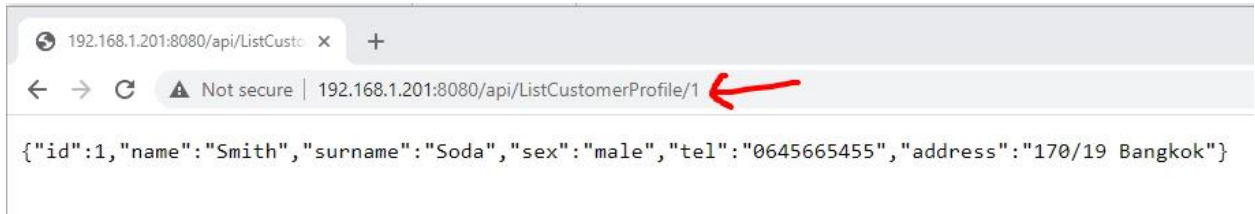


14. Test web api on our computer (Client).

Get All



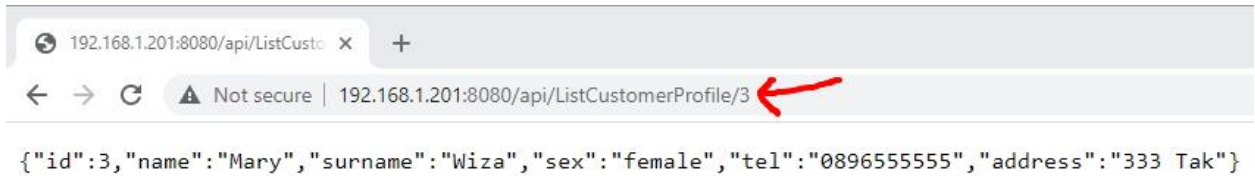
Get by ID = 1



Get by ID = 2



Get by ID = 3



The END

Editor by Rakchanok Sukagalanan

