







SCANIA STUDENT CHALLENGE FINAL 2020

To prepare before the final on Thursday dec 10, 2020 you need to make sure you can run the code in the package you download from <https://thechallenge.scania.com/final2020.zip>.

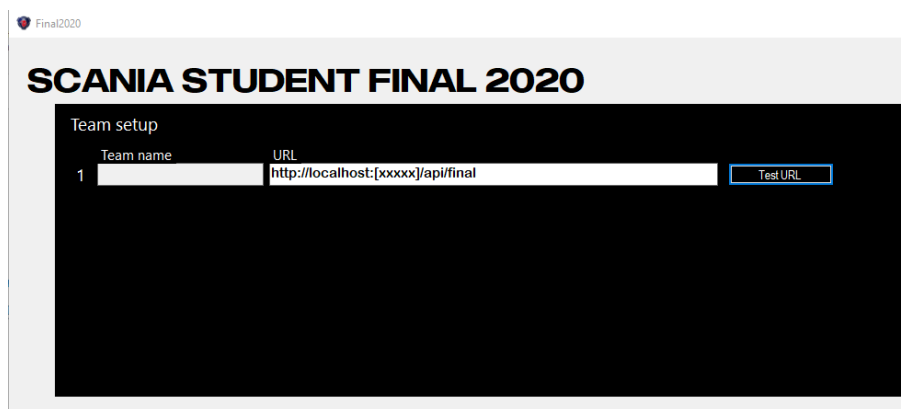
In the zip-file you will find 2 more zip-files. One containing the server and one containing the client.

1. HOW TO GET THE SERVER UP AND RUNNING

Unpack the contents of Final2020Server.zip on a Windows PC with .NET core 3.1 installed. The contents should look like this:

Name	Date
 Final2020Server.deps.json	2020
 Final2020Server.dll	2020
 Final2020Server.exe	2020
 Final2020Server.pdb	2020
 Final2020Server.runtimeconfig.json	2020
 Newtonsoft.Json.dll	2019



Double-click on Final2020Server.exe and you should see this:



Now you are done with the server and ready to set up the client.

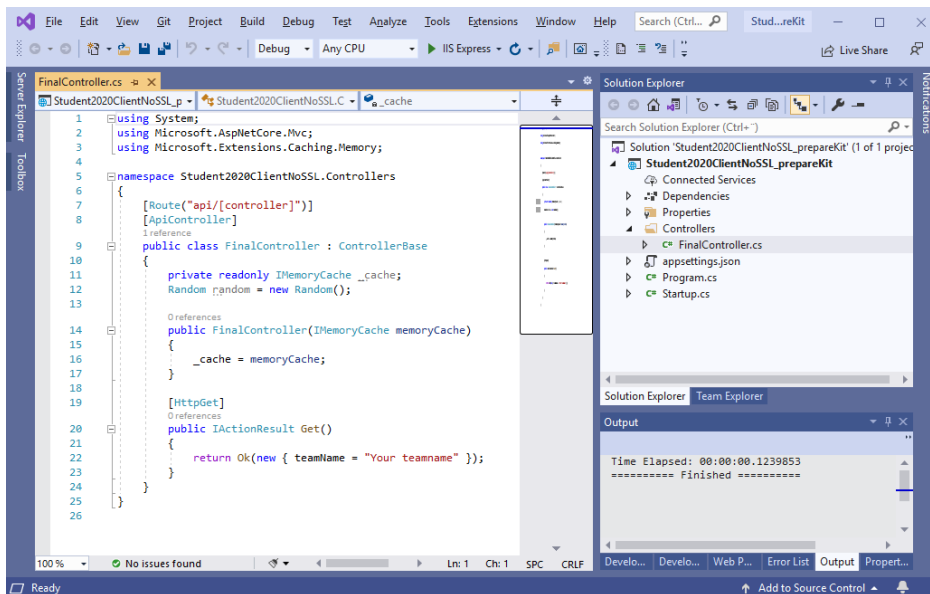
2. HOW TO GET THE CLIENT UP AND RUNNING

Unpack the contents of Student2020ClientNoSSL_prepareKit.zip on a computer (Win, mac or Linux) with .NET core 3.1 SDK and either Visual Studio 2019 or VS Code installed. The contents should look like this:

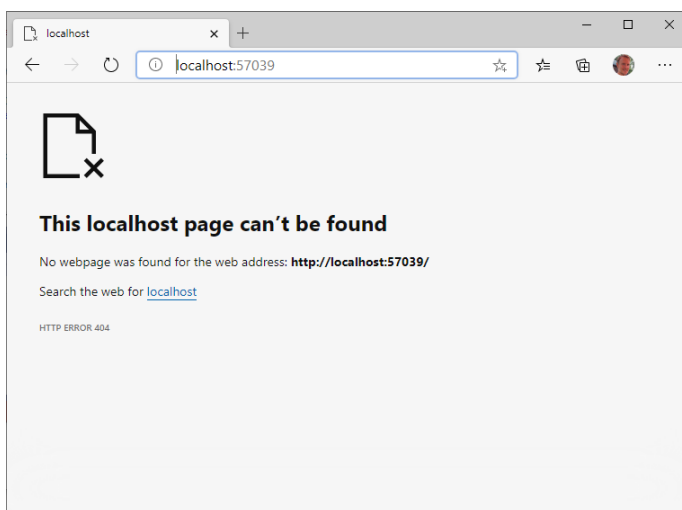
Name	Date
 Student2020ClientNoSSL_prepareKit	2020-12
 Student2020ClientNoSSL_prepareKit.sln	2020-12

2.1 USING VISUAL STUDIO 2019

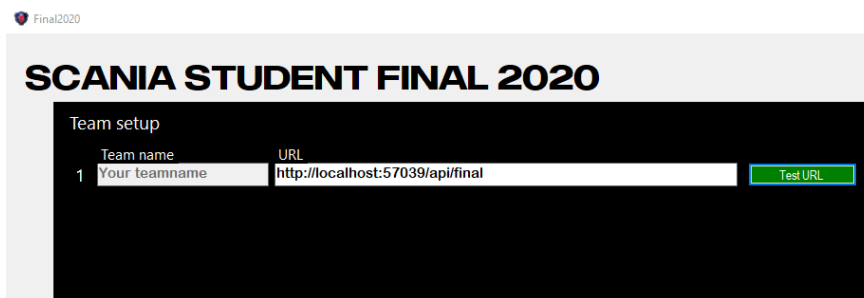
Open the solution file Student2020ClientNoSSL_prepareKit.sln and then open the file FinalController.cs in Controllers-folder and you should see this:



Notice the “Your teamname” string. Here you will change to your actual team name at the final. Run the project by hitting F5 or click the Play-button in the toolbar and you should see a browser window looking like this:



Notice your port number. Copy this number and paste it in the server. In this example the server should look like this:



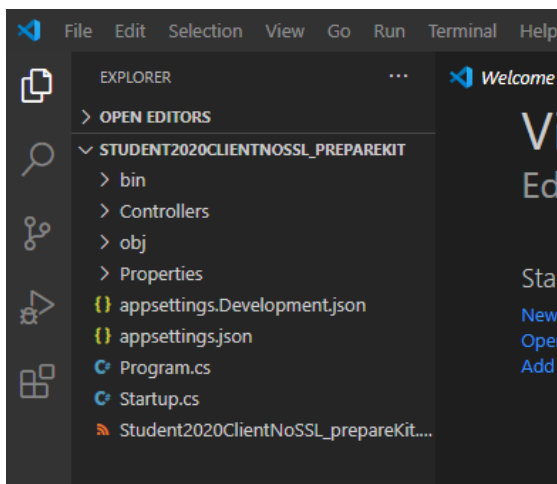
Click the test URL button and it should turn green if everything is working. If so – congratulations, you are ready for the final!!

2.2 USING VISUAL STUDIO 2019

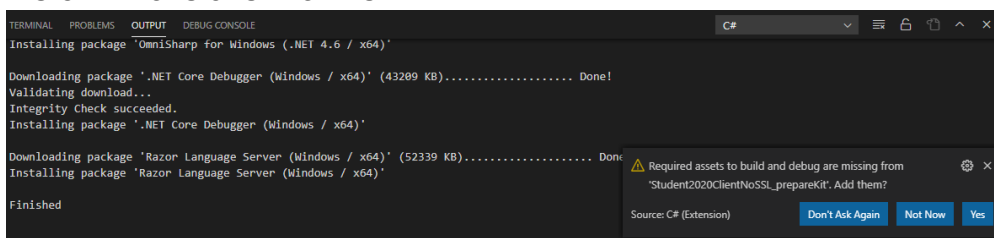
Open VS Code. Choose File -> Open folder... Browse to the location where you unzipped the client and go into the folder where the .csproj-file is. Not the .sln-file. It should look like this in the Open Folder-dialogue:

Name	Date m
bin	2020-1:
Controllers	2020-1:
obj	2020-1:
Properties	2020-1:

Click Select Folder. You should now see this in VS Code:

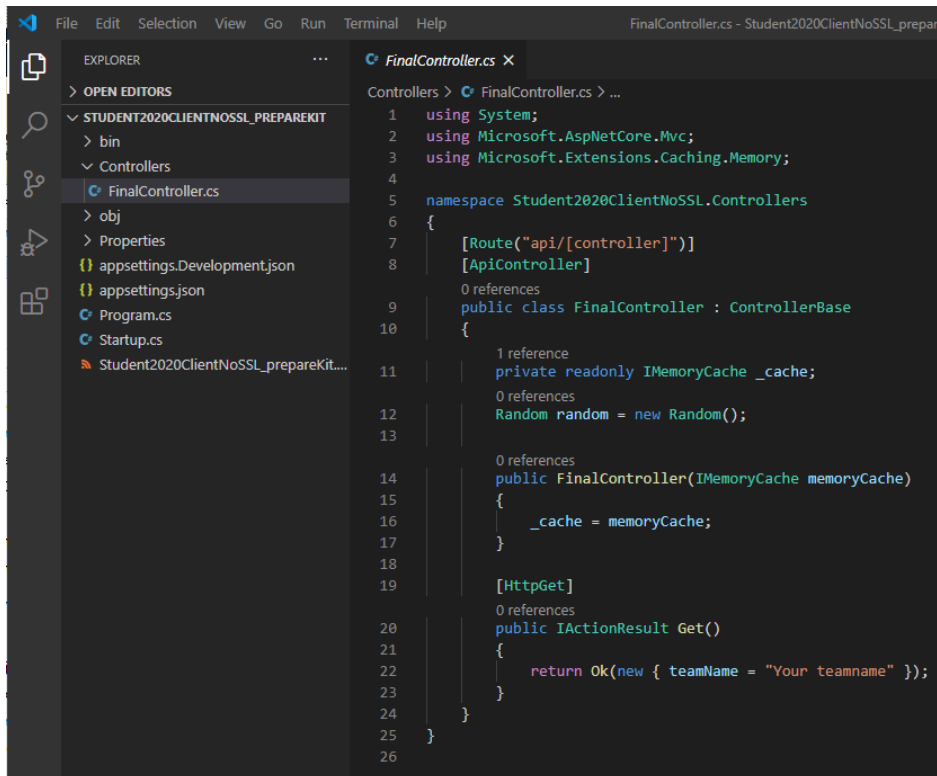


And in the OUTPUT window in the bottom you may see a lot of things happen. Downloading packages e.t.c. Wait for all to finish. You might also get question to install Extensions like this:



Click Yes.

Once everything is loaded and installed. Go to folder Controllers and open the file FinalController.cs. You should see this:



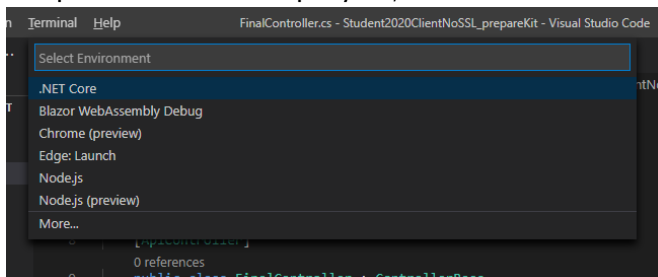
The screenshot shows the Visual Studio Code interface. On the left, the Explorer pane shows the project structure with folders like bin, obj, Properties, and Controllers. The Controllers folder is expanded, and FinalController.cs is selected. The main editor shows the code for FinalController.cs, which includes using statements for System, Microsoft.AspNetCore.Mvc, and Microsoft.Extensions.Caching.Memory. It defines a namespace Student2020ClientNoSSL.Controllers and a class FinalController that inherits from ControllerBase. The class has a private readonly IMemoryCache _cache, a Random object, and a GET endpoint that returns a 200 OK response with a team name.

```
1 using System;
2 using Microsoft.AspNetCore.Mvc;
3 using Microsoft.Extensions.Caching.Memory;
4
5 namespace Student2020ClientNoSSL.Controllers
6 {
7     [Route("api/[controller]")]
8     [ApiController]
9     public class FinalController : ControllerBase
10    {
11        1 reference
12        private readonly IMemoryCache _cache;
13        0 references
14        Random random = new Random();
15
16        0 references
17        public FinalController(IMemoryCache memoryCache)
18        {
19            _cache = memoryCache;
20        }
21
22        [HttpGet]
23        0 references
24        public IActionResult Get()
25        {
26            return Ok(new { teamName = "Your teamname" });
27        }
28    }
29 }
```

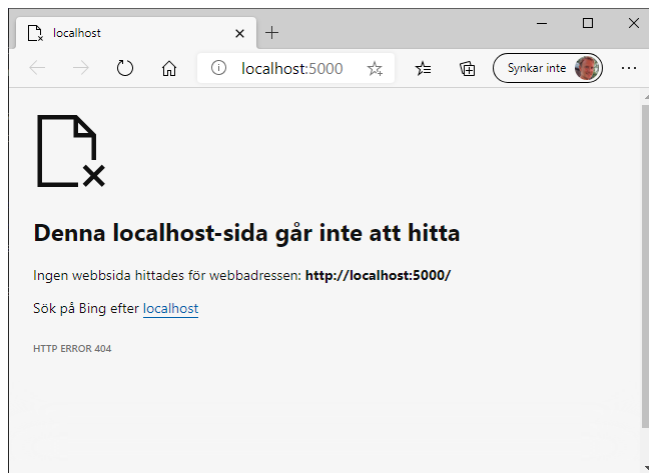
Notice the “Your teamname” string. Here you will change to your actual team name at the final.

There are a number of ways to run the code. If you are familiar with VS Code, please use your preferred way.

If you don’t know how to run the code; press F5 and choose .NET Core in the dropdown. If it is displayed, it looks like this:



This adds two more files to your folder. Now press F5 again to run. This will open a browser:



In this example, we run the code with port 5000. Remember your port number and go to the server program and change the [xxxx] to your port. In this example the server should look like this:

Team setup		
	Team name	URL
1	<input type="text"/>	<input type="text" value="http://localhost:5000/api/final"/>
		<input type="button" value="Test URL"/>

Press Test URL and the button should go green.

Team setup		
	Team name	URL
1	<input type="text" value="Your teamname"/>	<input type="text" value="http://localhost:5000/api/final"/>
		<input type="button" value="Test URL"/>

If so – congratulations, you are ready for the final!!

//Scania