ASP.NET Core In Process Hosting Model

In Process Hosting

▶ When we execute an ASP.NET core application then the .NET runtime looks for the **Main()** method. The **Main()** method is the entry point for the .net core application to execute.

▶ The **Main()** method of the Program class calls the static **CreateWebHostBuilder()** method.

▶ Then the **CreateWebHostBuilder()** method calls the static **CreateDefaultBuilder()** method of the **WebHost** class.

▶ The **CreateDefaultBuilder()** method sets the web host which will host our application with default preconfigured configurations.

Tasks performed by CreateDefaultBuilder() method

▶ As part of setting the web host, the **CreateDefaultBuilder()** method does several things. Some of them are as follows

   ▶ Setting up the webserver

   ▶ Loading the host and application configuration from various configuration sources

   ▶ Configuring logging

Right click on Project and click edit project file:- .csproj file is open

How to Configure InProcess Hosting

- ▶ To configure the **InProcess** hosting for ASP.NET Core Web application there is only one simple setting, just add the **<AspNetCoreHostingModel>** element to the application project file with a value of **InProcess** as shown in the below image.

- ▶ To find the application project file, just right click on your application from the solution explorer and click on the "**edit yourapplication.csproj**" option.

```
<Project Sdk="Microsoft.NET.Sdk.Web">

  <PropertyGroup>
    <TargetFramework>netcoreapp2.2</TargetFramework>

    <AspNetCoreHostingModel>InProcess</AspNetCoreHostingModel>

  </PropertyGroup>

  <ItemGroup>
    <PackageReference Include="Microsoft.AspNetCore.App" />
    <PackageReference Include="Microsoft.AspNetCore.Razor.Design"
                      Version="2.2.0" PrivateAssets="All" />
  </ItemGroup>

</Project>
```

By default InProcess model is use in asp.net core.

- <Project Sdk="Microsoft.NET.Sdk.Web">

- <PropertyGroup>

- <TargetFramework>netcoreapp3.1</TargetFramework>

- <!--Define here the hosting model for asp.net core-->

- <AspNetCoreHostingModel>InProcess</AspNetCoreHostingModel>

- </PropertyGroup>

- </Project>

- When we create a new ASP.NET Core Web application by using any template, by default the project file is created with **InProcess** hosting which is used for hosting the application in IIS or IIS Express scenarios.

- In case of **InProcess** hosting (i.e. when the **CreateDefaultBuilder()** sees the value as **InProcess** for the **AspNetCoreHostingModel** element in the project file), behind the scene the **CreateDefaultBuilder()** method internally calls the **UseIIS()** method. Then host the application inside the IIS worker process (i.e. **w3wp.exe** for IIS and **iisexpress.exe** for IISExpress).

- From the **performance point of view**, the **InProcess** hosting model delivers significantly higher request throughput than the OutOfProcess hosting model. Why we will discuss this at the end of this article.

- The process name that will be used to execute the application is **w3wp** in the case of **IIS.** Similarly, if it is **IIS Express** then the process name will be **iisexpress**

Display Process

```csharp
public class Startup
{
    // This method gets called by the runtime. Use this method to add services
    public void ConfigureServices(IServiceCollection services)...

    // This method gets called by the runtime. ...
    public void Configure(IApplicationBuilder app, IHostingEnvironment env)
    {
        if (env.IsDevelopment())
        {
            app.UseDeveloperExceptionPage();
        }

        app.Run(async (context) =>
        {
            await context.Response.WriteAsync("Worker Process Name : "
                + System.Diagnostics.Process.GetCurrentProcess().ProcessName);
        });
    }
}
```

Process Name=iisexpress

Thanks