

# 如何将前后端部署至服务器

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## 0x10 前期准备

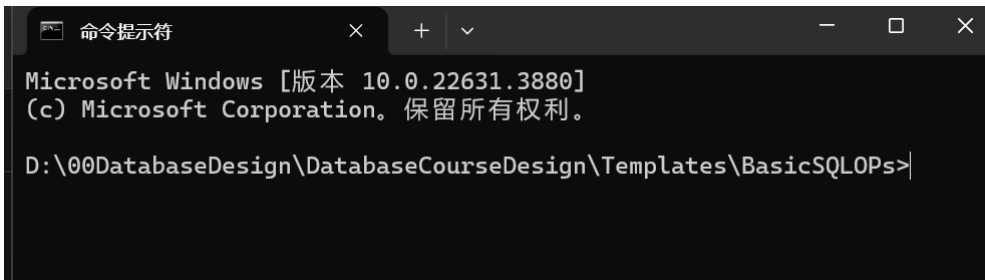
在部署之前，我们先需要将前后端打包。

## 0x11 前端打包

前端打包较为简单，将front-end文件夹压缩即可，建议使用bandizip软件将其打包成tar格式。

## 0x12 后端打包

进入Templates\BasicSQLOPs文件夹，在空白处 右键-在终端中打开：



打开后，输入这条指令即可：

```
dotnet publish BasicSQLOPs.sln -c Release -r linux-x64 --self-contained true
```

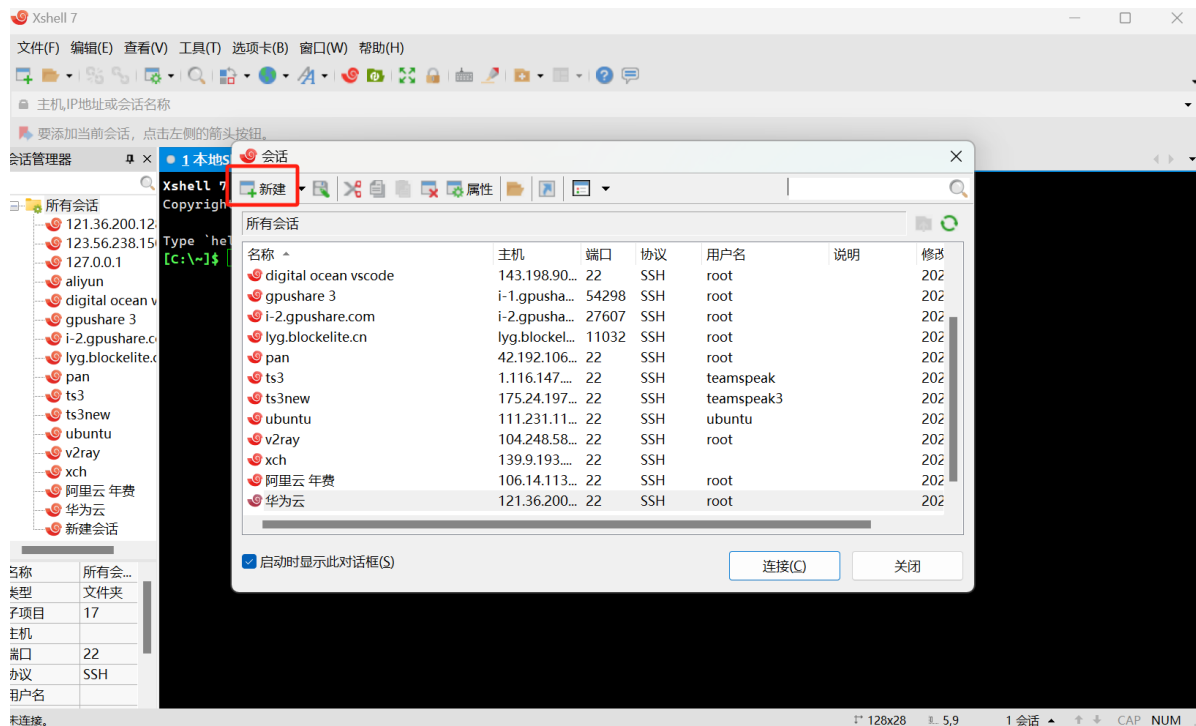
```
WebAppTest -> D:\00DatabaseDesign\DatabaseCourseDesign\Templates\WebAppTest\bin\Release\net8.0\linux-x64\WebAppTest.dll
WebAppTest -> D:\00DatabaseDesign\DatabaseCourseDesign\Templates\WebAppTest\bin\Release\net8.0\linux-x64\publish\
D:\00DatabaseDesign\DatabaseCourseDesign\Templates\BasicSQLOPs>
```

看见上图信息后就说明已经打包完成。

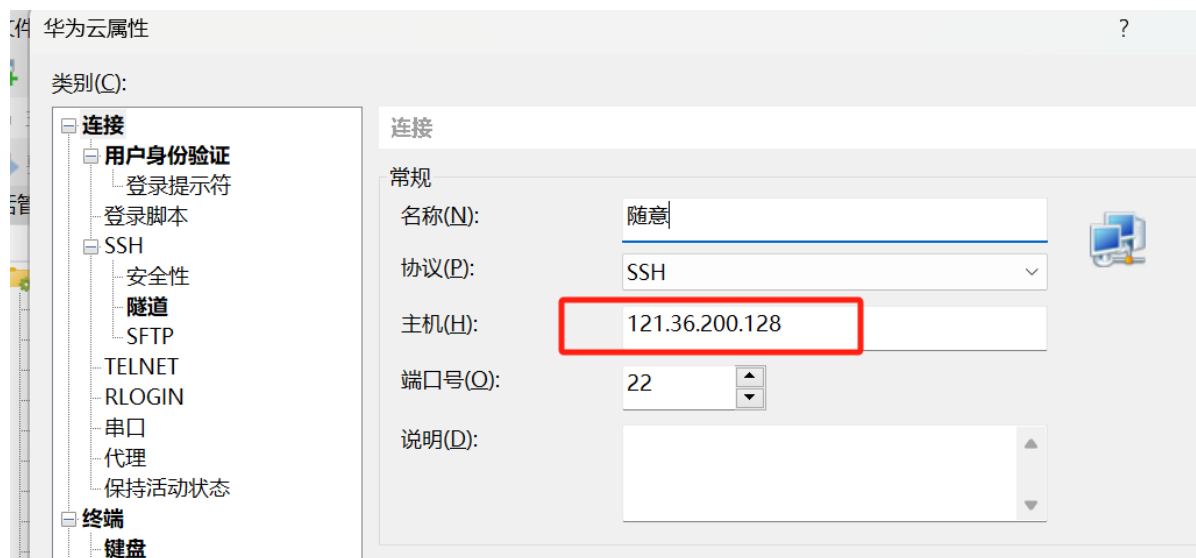
## 0x13 软件准备

下载群内的 xshellPlus-7.0.0033r-Modified-Green.zip 并解压缩，运行 !)绿化处理.bat

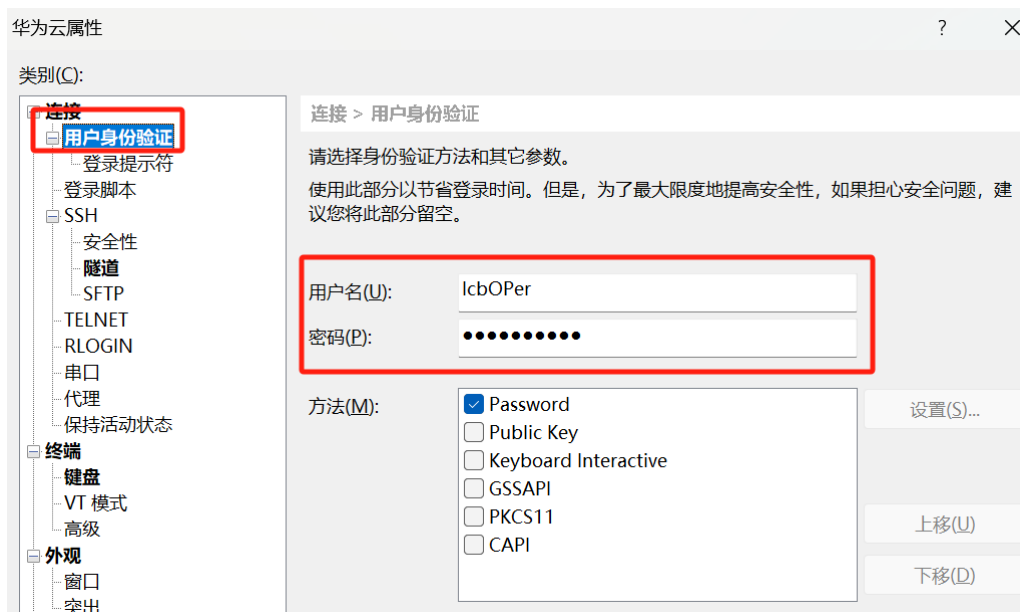
运行完成后，打开文件夹内的 xshell.exe，会弹出如下窗口，点击 新建



填入如下信息：



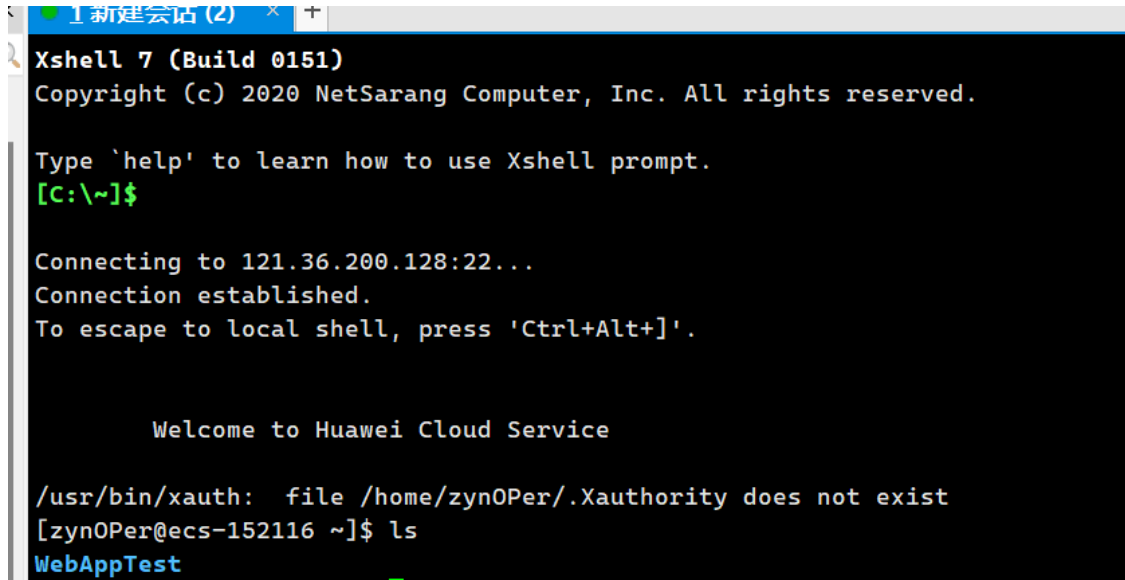
然后点击左侧的 **用户身份验证**，填入如下信息：



用户名@密码:  
1cb0Per@1cb1cb  
zyn0Per@zynzyn  
hjsx0Per@hjsxhjsx

然后点击下方连接

连接成功后可以使用 `ls` 指令，可以看见已经存在一个 `WebAppTest` 文件夹，说明连接成功。



```
Xshell 7 (Build 0151)
Copyright (c) 2020 NetSarang Computer, Inc. All rights reserved.

Type 'help' to learn how to use Xshell prompt.
[C:\~]$

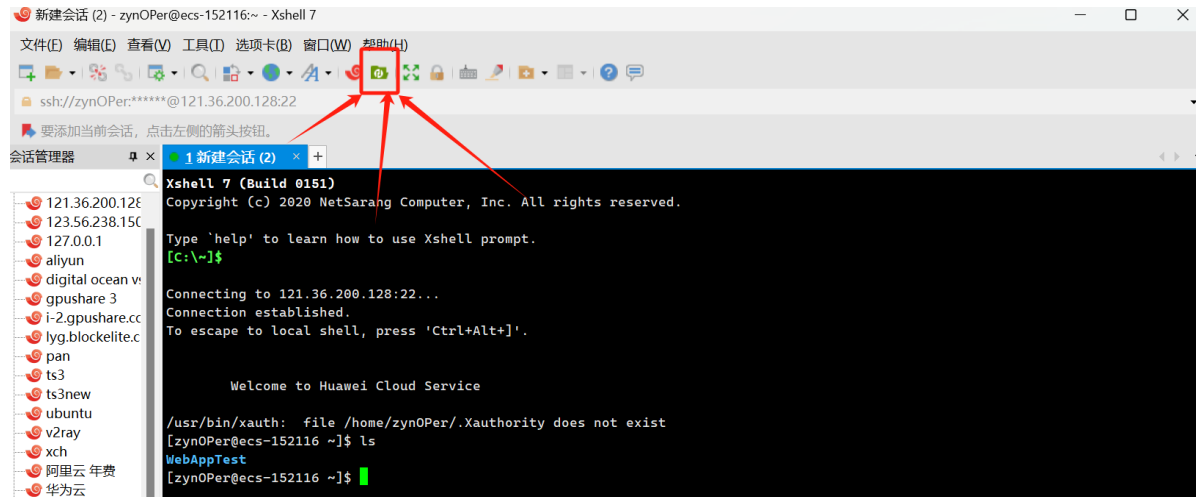
Connecting to 121.36.200.128:22...
Connection established.
To escape to local shell, press 'Ctrl+Alt+J'.

Welcome to Huawei Cloud Service

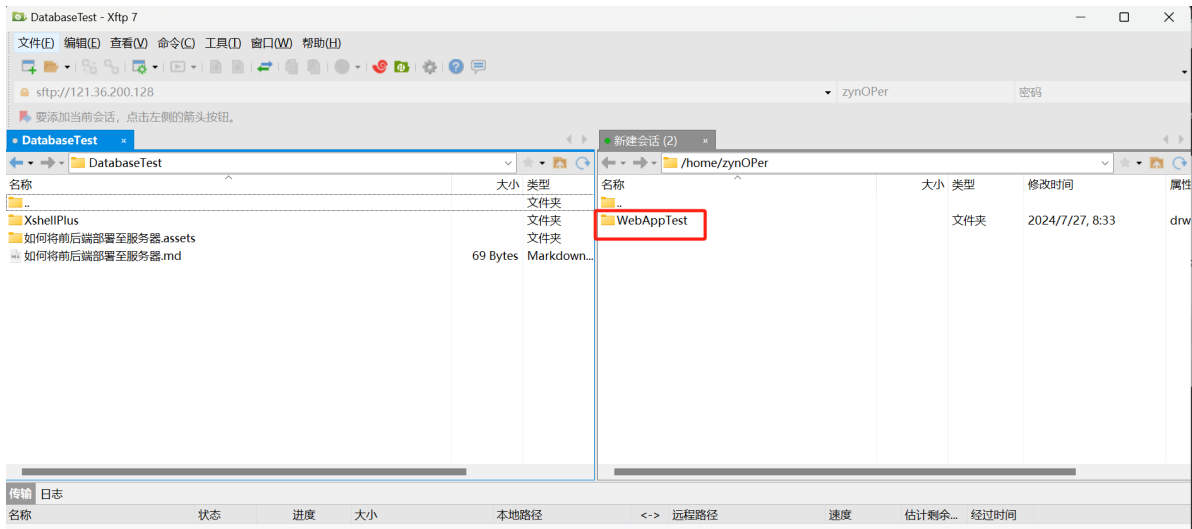
/usr/bin/xauth: file /home/zyn0Per/.Xauthority does not exist
[zyn0Per@ecs-152116 ~]$ ls
WebAppTest
```

## 0x20 后端上传

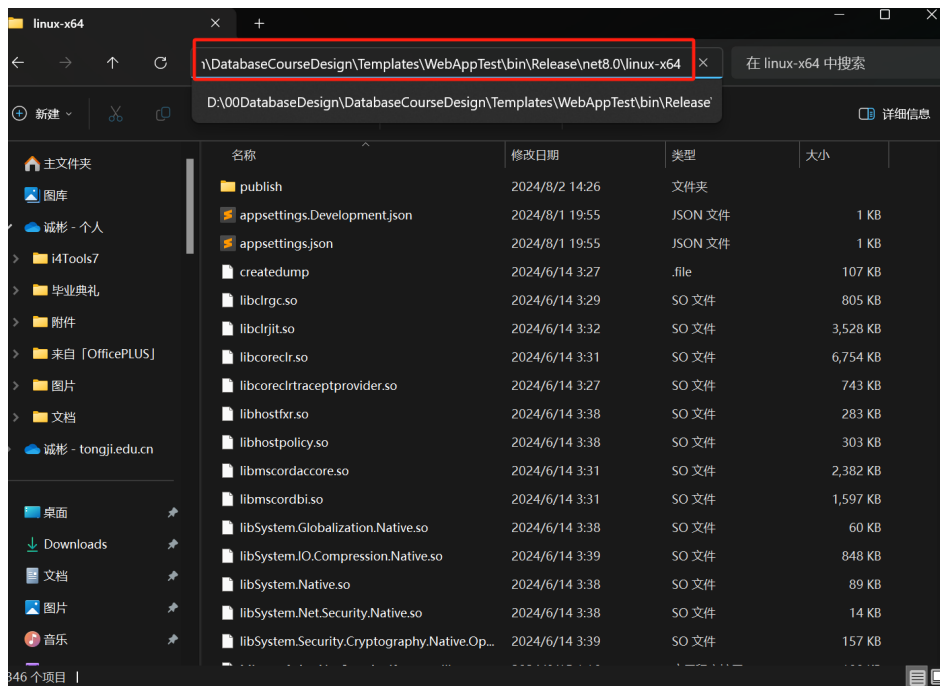
在当前界面下，点击上方图示图表打开ftp终端：



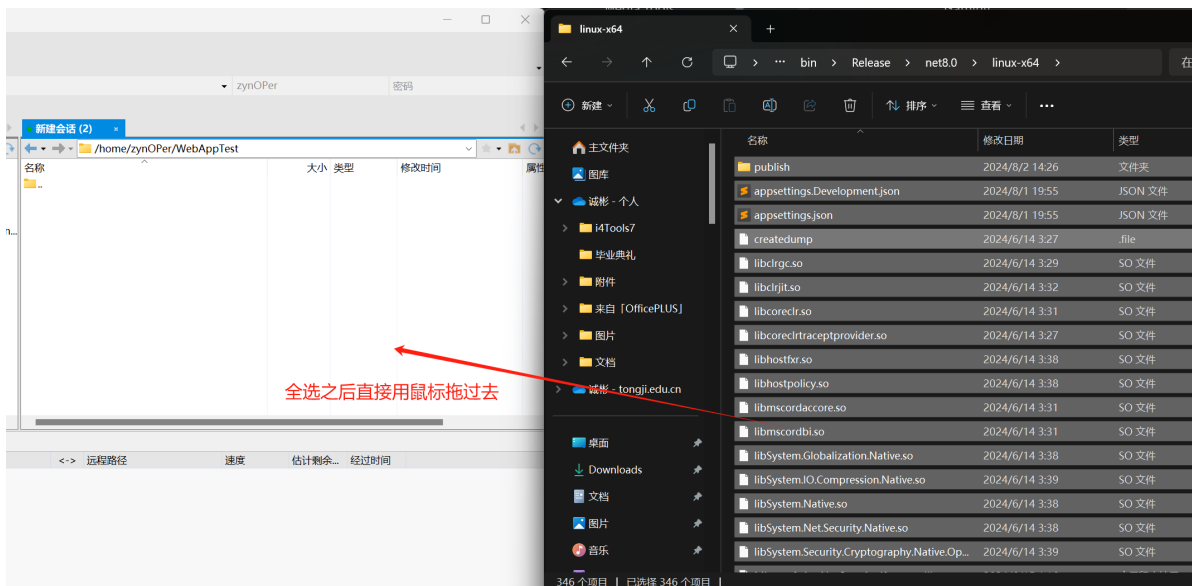
打开后看见如下图界面，双击进入 `WebAppTest` 文件夹：



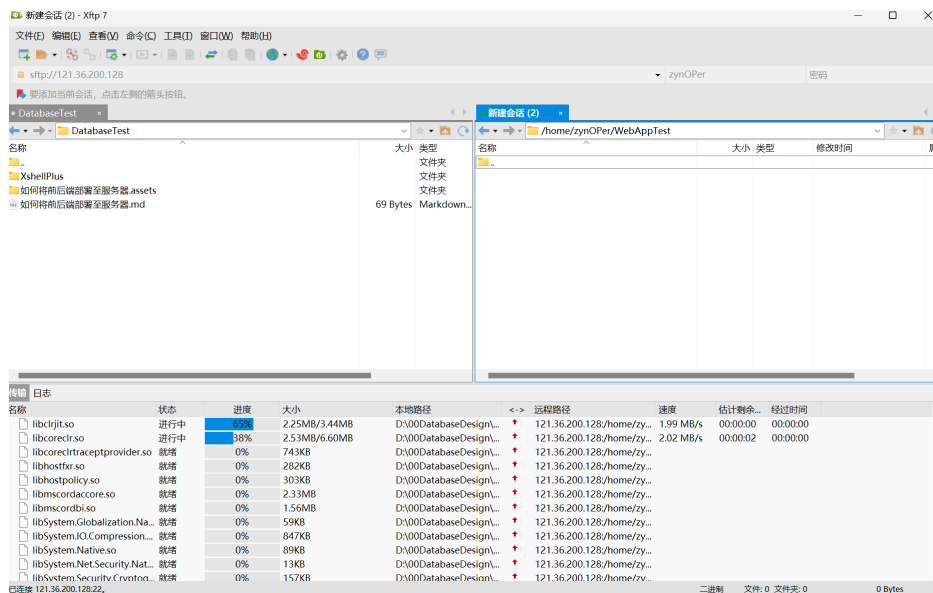
然后打开 0x12 步骤中后端打包的文件夹：Templates\WebAppTest\bin\Release\net8.0\linux-x64



将文件夹内容全选后，拖入ftp终端：



等待上传完毕：



上传完成后，回到ssh界面，使用 `cd WebAppTest` 指令进入文件夹并使用 `ls` 指令查看内容：

```
1 新建会话 (2) × 2 华为云 × +
[zynOPer@ecs-152116 ~]$ cd WebAppTest/
[zynOPer@ecs-152116 WebAppTest]$ ls
appsettings.Development.json      System.Collections.Concurrent.dll
appsettings.json                  System.Collections.dll
createdump                         System.Collections.Immutable.dll
libclrjit.so                       System.Collections.NonGeneric.dll
libclrjit.so                       System.Collections.Specialized.dll
libcoreclr.so                      System.ComponentModel.Annotations.dll
libcoreclrtraceptprovider.so       System.ComponentModel.DataAnnotations.dll
libhostfxr.so                      System.ComponentModel.dll
libhostpolicy.so                   System.ComponentModel.EventBasedAsync.dll
libmscordacore.so                  System.ComponentModel.Primitives.dll
libmscordbi.so                     System.ComponentModel.TypeConverter.dll
libSystem.Globalization.Native.so  System.Configuration.ConfigurationManager.dll
libSystem.IO.Compression.Native.so System.Configuration.dll
libSystem.Native.so                System.Console.dll
libSystem.Net.Security.Native.so   System.Core.dll
libSystem.Security.Cryptography.Native.OpenSsl.so System.Data.Common.dll
Microsoft.AspNetCore.Antiforgery.dll System.Data.DataSetExtensions.dll
Microsoft.AspNetCore.Authentication.Abstractions.dll System.Data.dll
Microsoft.AspNetCore.Authentication.BearerToken.dll System.Diagnostics.Contracts.dll
Microsoft.AspNetCore.Authentication.Cookies.dll System.Diagnostics.Debug.dll
Microsoft.AspNetCore.Authentication.Core.dll System.Diagnostics.DiagnosticSource.dll
Microsoft.AspNetCore.Authentication.dll System.Diagnostics.EventLog.dll
Microsoft.AspNetCore.Authorization.dll System.Diagnostics.FileVersionInfo.dll
Microsoft.AspNetCore.Authorization.Policy.dll System.Diagnostics.PerformanceCounter.dll
Microsoft.AspNetCore.Components.Authorization.dll System.Diagnostics.Process.dll
Microsoft.AspNetCore.Components.dll System.Diagnostics.StackTrace.dll
Microsoft.AspNetCore.Components.dll System.Diagnostics.TextWriterTraceListener.dll
```

可以看见上传成功。

然后使用 `sudo /usr/bin/dotnet /home/zynOPer/WebAppTest/WebAppTest.dll` 指令

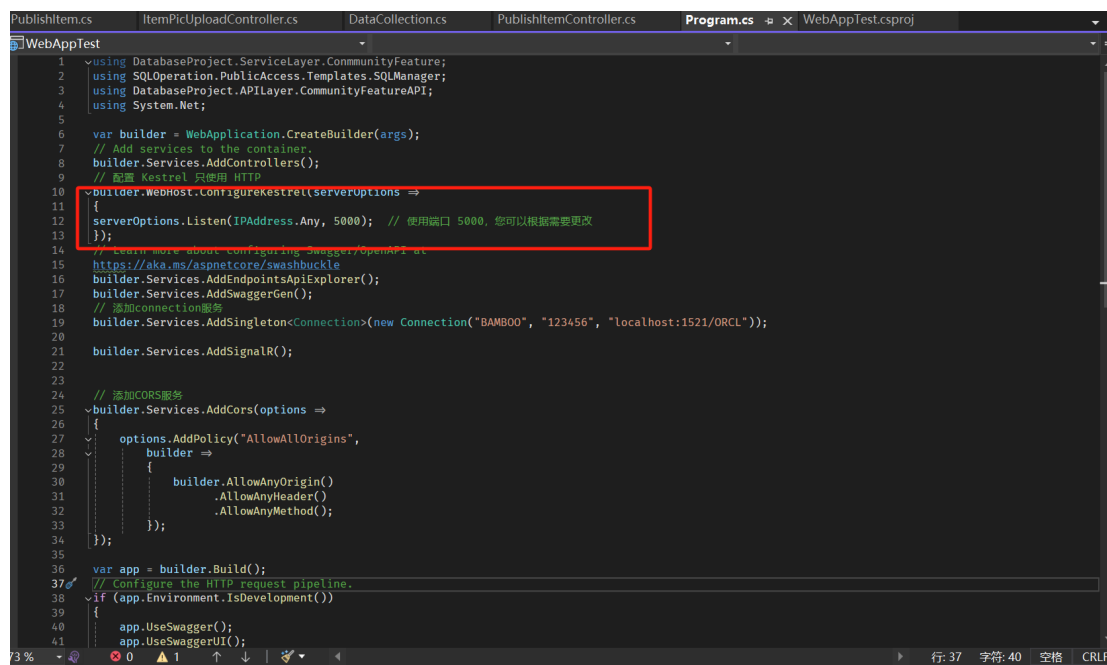
(其他xxxOPer请自行替换)

```
1 华为云 × 2 新建会话 (2) × +
[zynOPer@ecs-152116 WebAppTest]$ sudo /usr/bin/dotnet /home/zynOPer/WebAppTest/WebAppTest.dll
Data Source=localhost:1521/ORCL; User Id=BAMBOO; Password=123456;
Error: ORA-01017: invalid username/password; logon denied
https://docs.oracle.com/error-help/db/ora-01017/
Error Code: -2147467259
Details: at OracleInternal.ConnectionPool.PoolManager`3.Get(ConnectionString csWithDiffOrNewPassw, Boolean bGetForApp, Oracle
Connection connRefForCriteria, String affinityInstanceName, Boolean bForceMatch, Boolean bAsync)
at OracleInternal.ConnectionPool.OraclePoolManager.Get(ConnectionString csWithNewPassw, Boolean bGetForApp, OracleConnection
connRefForCriteria, String affinityInstanceName, Boolean bForceMatch, Boolean bAsync)
at OracleInternal.ConnectionPool.OracleConnectionDispenser`3.Get(ConnectionString cs, PM conPM, ConnectionString pmCS, Oracle
OpaqueString securedPassw, OracleOpaqueString securedProxyPassw, OracleConnection connRefForCriteria, Boolean bAsync)
at Oracle.ManagedDataAccess.Client.OracleConnectionInternal.OpenInternal(Boolean bAsync)
at Oracle.ManagedDataAccess.Client.OracleConnectionInternal.Open()
at Oracle.ManagedDataAccess.Client.OracleConnection.Open()
at SQLOperation.PublicAccess.Templates.SQLManager.Connection.ConnectSQL() in D:\00DatabaseDesign\DatabaseCourseDesign\Templat
es\BasicSQLOPs\PublicAccess\Templates\SQLManager\Connection.cs:line 35
ORA-01017: invalid username/password; logon denied
https://docs.oracle.com/error-help/db/ora-01017/
warn: Microsoft.AspNetCore.StaticFiles.StaticFileMiddleware[16]
The WebRootPath was not found: /home/zynOPer/WebAppTest/wwwroot. Static files may be unavailable.
info: Microsoft.Hosting.Lifetime[14]
Now listening on: http://0.0.0.0:5000
info: Microsoft.Hosting.Lifetime[0]
Application started. Press Ctrl+C to shut down.
info: Microsoft.Hosting.Lifetime[0]
Hosting environment: Production
info: Microsoft.Hosting.Lifetime[0]
Content root path: /home/zynOPer/WebAppTest
```

注：此处由于之前测试了，所以不会要求输入密码，如果要求输入密码，输入连接时的密码即可（如：zynzyn），另外，此处输入密码是是没有回显的，相信自己，你不会输错的（玫瑰）。

```
warn: Microsoft.AspNetCore.StaticFiles.StaticFileMiddleware[16]
      The WebRootPath was not found: /home/zyn0Per/WebAppTest/wwwroot. Static files may be unavailable.
info: Microsoft.Hosting.Lifetime[14]
      Now listening on: http://0.0.0.0:5000
info: Microsoft.Hosting.Lifetime[0]
      Application started. Press Ctrl+C to shut down.
```

可以看见，已经运行在了5000端口上，为了避免端口占用，请修改 WebAppTest-Program.cs 中的如下内容：



```
1 using DatabaseProject.ServiceLayer.CommunityFeature;
2 using SQLOperation.PublicAccess.Templates.SQLManager;
3 using DatabaseProject.APILayer.CommunityFeatureAPI;
4 using System.Net;
5
6 var builder = WebApplication.CreateBuilder(args);
7 // Add services to the container.
8 builder.Services.AddControllers();
9 // 配置 Kestrel 只使用 HTTP
10 builder.WebHost.ConfigureKestrel(serverOptions =>
11 {
12     serverOptions.Listen(IPAddress.Any, 5000); // 使用端口 5000, 您可以根据需要更改
13 });
14 // Learn more about configuring Swagger/OpenAPI at
15 // https://aka.ms/aspnetcore/swashbuckle
16 builder.Services.AddEndpointsApiExplorer();
17 builder.Services.AddSwaggerGen();
18 // 添加connection服务
19 builder.Services.AddSingleton<Connection>(new Connection("BAMBOO", "123456", "localhost:1521/ORCL"));
20
21 builder.Services.AddSignalR();
22
23
24 // 添加CORS服务
25 builder.Services.AddCors(options =>
26 {
27     options.AddPolicy("AllowAllOrigins",
28         builder =>
29         {
30             builder.AllowAnyOrigin()
31                 .AllowAnyHeader()
32                 .AllowAnyMethod();
33         });
34 });
35
36 var app = builder.Build();
37 // Configure the HTTP request pipeline.
38 if (app.Environment.IsDevelopment())
39 {
40     app.UseSwagger();
41     app.UseSwaggerUI();
42 }
```

用户名-端口：

1cb0Per-5001

zyn0Per-5002

hjsx0Per-5003

注意，请先修改再上传！

至此后端部署完毕，要注意的是，xshell不能关闭，不然后端会自动停止运行。

（虽然有方法让他在后台运行，但是为了防止长时间占用端口，此处不教）

## 0x30 前端部署

目前由于一些奇怪的版本问题，建议大家前端还是在本地进行运行，前端中调用的api端口改为

```
http://121.36.200.128:5001(或5002/5003)/api/xxx
```

即可。