

DBContext for SQL Trace



Entity-ORM SQL

```
using Microsoft.EntityFrameworkCore;
using Microsoft.Extensions.Logging; //Nuget
using Microsoft.Extensions.Logging.Console;
using Microsoft.Extensions.Logging.Debug;

namespace accountapi.Config
{
    public class LogSettings
    {
        public static readonly LoggerFactory ConsoleLogger = new LoggerFactory(new[] {
            new ConsoleLoggerProvider((category, level) => category == DbLoggerCategory.Database.Command.Name
                && level == LogLevel.Debug, true)
        });

        public static readonly LoggerFactory DebugLogger = new LoggerFactory(new[] {
            new DebugLoggerProvider( (_, logLevel) => logLevel >= LogLevel.Debug)
        });
    }
}
```

Microsoft.Extensions.Logging

ConsoleLogger DebugLogger Xunit DebugLogger

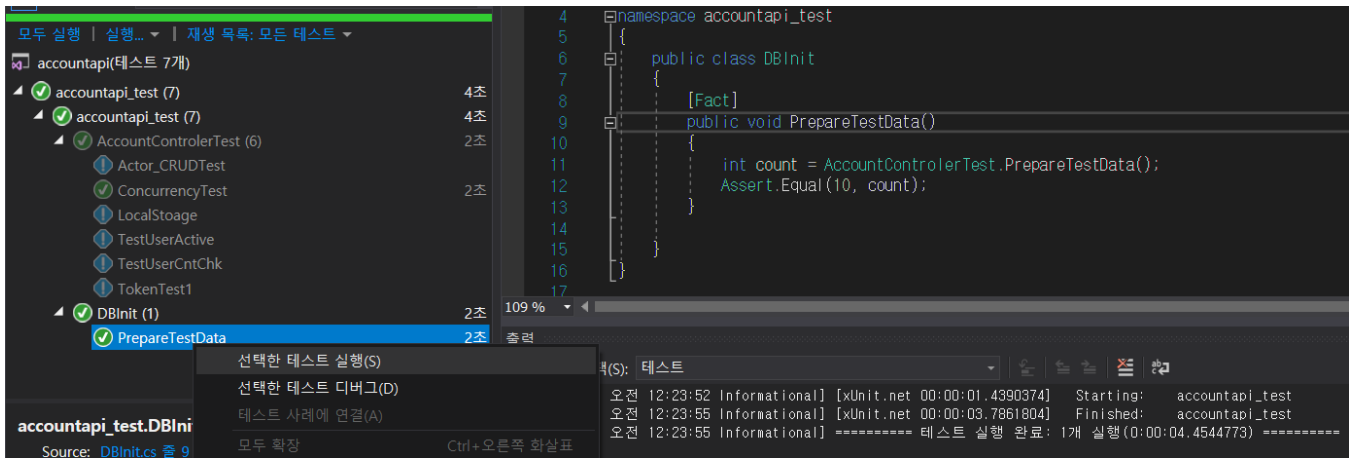
Xunit DebugLogger , APP ConsoleLogger

.

DBContext

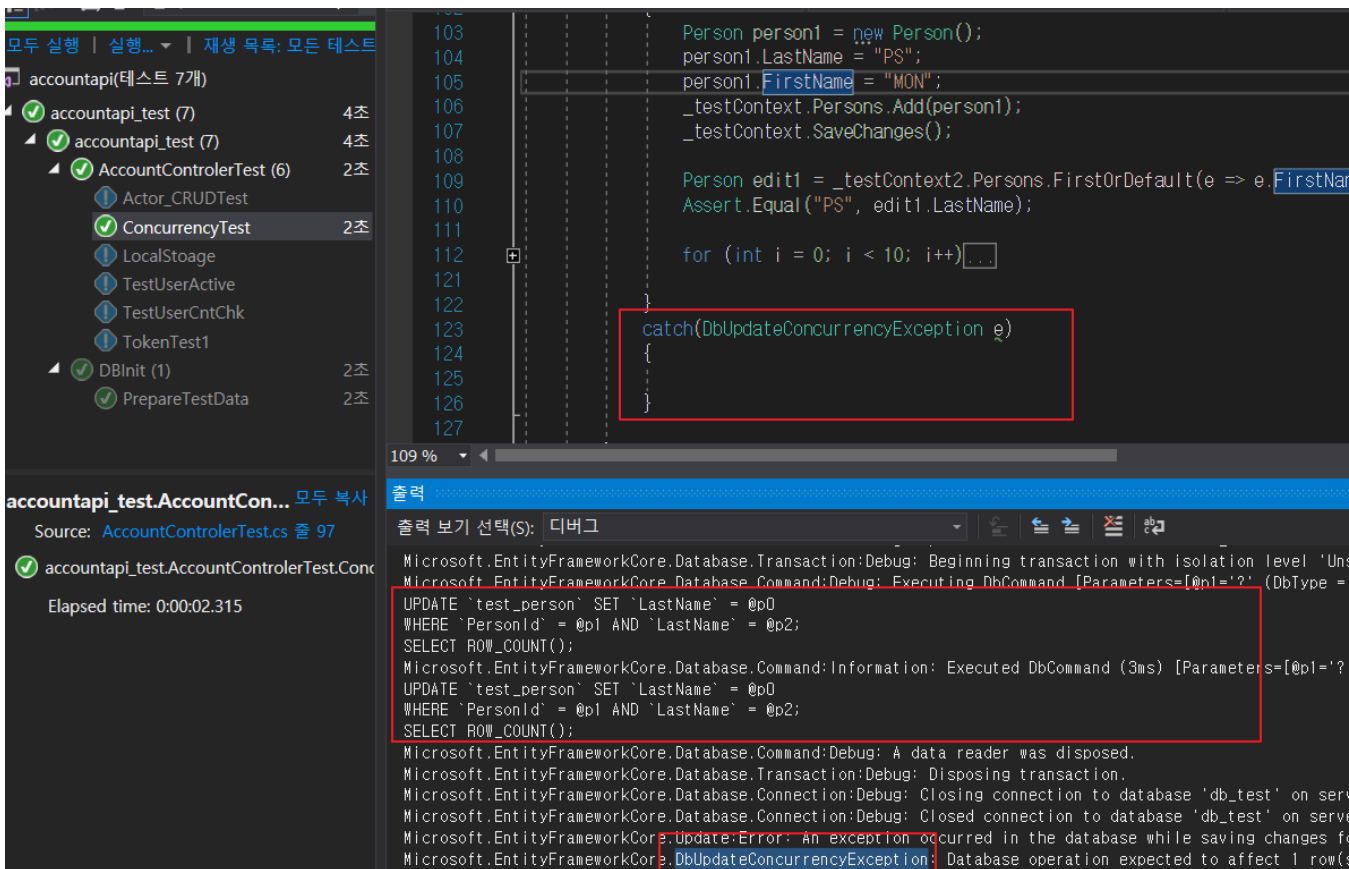
```
var builder = new DbContextOptionsBuilder<AccountContent>()
    .UseLoggerFactory(LogSettings.DebugLogger) //Entity ORM
    .UseMySQL(AccountControllerTest.ConnectionString);
var context = new AccountContent(builder.Options);
```

DBContext SQL



ORM DB

SQL



Entity-ORM

DbUpdateConcurrencyException

ORM SQL, SQL

Entity-ORM ConcurrencyCheck

```
[ConcurrencyCheck]
public string LastName { get; set; }
```

, SQL

SQL OOP DB Concurrency Write .

The screenshot displays the Visual Studio Test Explorer and Test Runner interface. On the left, the Test Explorer shows a tree view of tests under 'accountapi(테스트 7개)'. The test 'TestUserActive' is highlighted, showing it passed with an elapsed time of 1초. Below the tree, the 'Output' tab is selected, showing the source file 'AccountControllerTest.cs' and the elapsed time '0:00:01.513'. On the right, the Test Runner shows the 'Test Name' as 'accountapi_test.AccountControllerTest.TestUserActive' and the 'Test Outcome' as '통과' (Passed). The 'Standard Output' is displayed as a JSON object: { "UserId": 1, "SocialInfos": null, "IsSocialActive": false, "NickName": "Mynick1", "MyId": "TestID1", "PassWord": "TEST1231", "RegDate": "2018-09-23T12:11:47.014938" }. A red arrow points from the 'Output' tab in the Test Explorer to the 'Standard Output' in the Test Runner.

Json OutputJson .

ITestOutputHelper xUnit .

```

public class AccountControllerTest
{
    private readonly ITestOutputHelper output;

    public AccountControllerTest(ITestOutputHelper output)
    {
        this.output = output;
        InitContext();
    }

    protected void OutPutJson(Object obj)
    {
        output.WriteLine("{0}", JsonConvert.SerializeObject(obj, Formatting.Indented));
    }

    [Fact]
    public void TestUserActive()
    {
        bool expected = false;
        var controller = new AccountController(_accountService);
        User result = controller.GetUserById(1); //
        OutPutJson(result); // Print
        Assert.Equal(expected, result.IsSocialActive); //
    }
}

```

ORM .

DB / / 3 .

- MSDN : <https://docs.microsoft.com/ko-kr/ef/core/saving/concurrency>
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