**REFERENCES *(this session just for reference, student can use the other approach to do Practical Exam)***

***Working with DB connection string from JSON file****.*

* 1. Using Manage Nuget packages to install packages

- *Install package using CLI or Power Shell*

dotnet add package Microsoft.EntityFrameworkCore.SqlServer --version 9.0.6

dotnet add package Microsoft.EntityFrameworkCore.Design --version 9.0.6

dotnet add package Microsoft.EntityFrameworkCore.Tools --version 9.0.6

dotnet add package Microsoft.Extensions.Configuration --version 9.0.6

dotnet add package Microsoft.Extensions.Configuration.Json --version 9.0.6

Entity Framework Core

*- Install dotnet-ef for CLI*

dotnet tool install --global dotnet-ef --version 9.0.6

*- Use Entity Framework Core to generate Object Model* ***from existing database*** *– CLI*

**dotnet ef dbcontext scaffold** "Server=**(local)**;uid=**sa**;pwd=**1234567890**;database=**MyDatabase**;TrustServerCertificate=True;" Microsoft.EntityFrameworkCore.SqlServer --output-dir **./Entities**

* 1. In the **Presentation layer (WPF Project)**, you create ***appsettings.json*** and add **ConnectionStrings** same as the bellow to config the connection string to SQL Server Database.

*{*

*"ConnectionStrings": {*

*"****DefaultConnection****": "server=****(local)****; database=***MyDatabase***; uid=****sa****; pwd=****1234567890****; TrustServerCertificate=True;* *Trusted\_Connection=True;"*

*}*

*}*

You can change **server**, **uid** and **pwd** to suitable information with your local machine.

* 1. **Set property "Copy to Output Directory" of *appsettings.json* file to "Copy always"**
  2. Using *ConfigurationBuilder* to init Configuration object for reading *appsettings.json* file same as this code:

*private string GetConnectionString()*

*{*

*IConfiguration config = new ConfigurationBuilder()*

*.SetBasePath(Directory.GetCurrentDirectory())*

*.AddJsonFile("appsettings.json",true,true)*

*.Build();*

*var strConn = config["ConnectionStrings:DefaultConnection"];*

*return strConn;*

*}*

* 1. After that, durring development, student can bypass the ConnectionString (which read from *appsettings.json*) to Data access layer by constructor or ***OnConfiguring***method

*protected override void OnConfiguring(DbContextOptionsBuilder optionsBuilder)*

*{*

*optionsBuilder.UseSqlServer(GetConnectionString());*

*}*

* **Code First:**

*- Generate database* ***from domain classes*** *– CLI.*

dotnet ef migrations add "InitialDB"

dotnet ef database update

Entity Framework Core

*- Use Entity Framework Core to generate Object Model from existing database – Package Manager Console*

**Scaffold-DbContext** "Server=(local);uid=**sa**;pwd=**1234567890**;database=**MyDatabase**;TrustServerCertificate=True;" Microsoft.EntityFrameworkCore.SqlServer -OutputDir ./

*- Generate database from domain classes – Package Manager Console*

Add-Migration "InitialDB"

Update-Database -verbose