Entity Framework

Requirements

1. Installed Visual Studio
2. Installed SQL Server (Express)

Installation

1. Open Visual Studio
2. Create a new (console) application
3. Tools -> NuGet Package Manager -> Manage NuGet Packages for Solution
4. Click "Browse" and search for "Entity Framework"
5. Select your project and click "Install"
6. Accept the license agreement

Initialization

Create DatabaseContext

```csharp
public class DatabaseContext : DbContext
{

    public DatabaseContext() : base("ConnectionName")
    {

    }
}
```

Add connection to Web.config
- Rename ConnectionName to the name you used in your context
- Rename DatabaseName to the name of the database inside SQL Server
- The default server is .\SQLEXPRESS when using SQL Express
- Use `Integrated Security=true` to authenticate using your Windows account
- Use `User Id=[Username];Password=[Password]` to authenticate using a SQL account

```xml
<configuration>

  <connectionStrings>
    <add name="[ConnectionName]"
    providerName="System.Data.SqlClient"
    connectionString="Server=.\SQLEXPRESS;Database=[DatabaseName];Integrated
Security=True;"/>
  </connectionStrings>
```

Usage

Add entity to DatabaseContext

```csharp
public class Human
{
    public int ID { get; set; }
    public string Name { get; set; }
    public int Age { get; set; }
}

public class DatabaseContext : DbContext
{
    public virtual DbSet<Human> Humans { get; set; }

    public DatabaseContext() : base("ConnectionName")
    {

    }
}
```

Use DatabaseContext

```csharp
using (var dbContext = new DatabaseContext())
{
    var amount = dbContext.Humans.Count();
    Console.WriteLine("Amount of hunmans: " + amount);
}
```