The following screens represent web forms and MVC screens.

Web Forms

MVC Application

Application Highlights

- Separate Class Library Project for Utility methods
- UI Validations (Model validation for MVC)
- Log4net used for logging exceptions
- Interface implementation aiding to follow DI
- Unit Testing - Moq (Ioc)
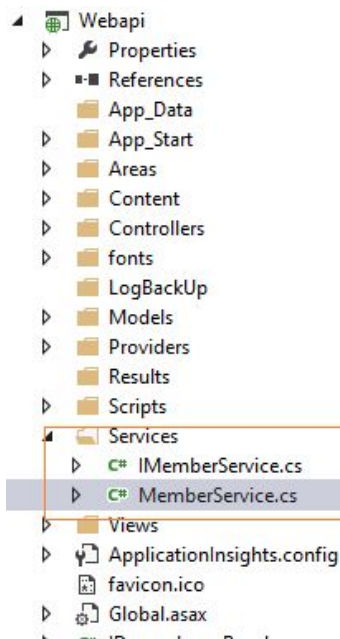- SOLID Principles

Log4net Implementation

```xml
<configSections>
  <section name="log4net" type="log4net.Config.Log4NetConfigurationSectionHandler, log4net" />
  <sectionGroup name="applicationSettings" type="System.Configuration.ApplicationSettingsGroup, System, Version=4.0.0.0, Culture=neu
    <section name="Webform.Properties.Settings" type="System.Configuration.ClientSettingsSection, System, Version=4.0.0.0, Culture=n
  </sectionGroup>
</configSections>
<log4net>
  <appender name="ErrorLog" type="log4net.Appender.RollingFileAppender">
    <file value="LogBackUp\" />
    <staticLogFileName value="false" />
    <appendToFile value="true" />
    <rollingStyle value="Date" />
    <datePattern value="yyyy-MM-dd.'Err'" />
    <lockingModel type="log4net.Appender.FileAppender+MinimalLock" />
    <layout type="log4net.Layout.PatternLayout">
      <conversionPattern value="%d{DATE} [%t] %-5p %c - %m%n" />
    </layout>
  </appender>
  <logger name="ErrorLog">
```

```csharp
5 references
public class MemberService : IMemberService
{
    #region Properties
    //Declaring Log4Net
    log4net.ILog logger = log4net.LogManager.GetLogger(typeof(MemberService));
    #endregion

    Service Methods
}
```

Interface Implementation

```
▲ 🌐 Webapi
  ▷ 🔧 Properties
  ▷ ■·■ References
     📁 App_Data
  ▷ 📁 App_Start
  ▷ 📁 Areas
  ▷ 📁 Content
  ▷ 📁 Controllers
  ▷ 📁 fonts
     📁 LogBackUp
  ▷ 📁 Models
  ▷ 📁 Providers
     📁 Results
  ▷ 📁 Scripts
  ▲ 📁 Services
     ▷ C# IMemberService.cs
     ▷ C# MemberService.cs
  ▷ 📁 Views
  ▷ 🎁 ApplicationInsights.config
     📄 favicon.ico
  ▷ 🔧 Global.asax
```

Nunit - Moq (Ioc)

```csharp
lstMembers.Add(member);

var mockRepo = new Mock<IMemberService>();
mockRepo.Setup(x => x.AddMembers(null)).Returns(lstMembers);

var memberService = new MemberService();
var returnData = memberService.AddMembers(member);

//Assert
```