



HANDLING DATA FROM XML FILE

Parsing data and creating dynamic classes with
parent child relationship.

with .NET CORE | C#





Requirements

- Classes should be created for each nodes of the "Örnek Dosya.xml" file.
- The XML file should be deserialized to related classes.
- Each class have to be in relationship as Parent-Childs.
- When the solution run, values should be assigned related class as dynamic on runtime.
- The result data should be displayed.



ROUTE

- .NET Core project has been created with MVC pattern.
- HomeController.cs has been used for main code blocks.
- "System.Xml.Serialization" has been implemented for serialization or deserialization of xml file.
- "System.IO" ensured to reach local files like Örnek Dosya.xml file.
- XML file deserialized in UnitsProject variable.
- DOORS, HANDLES, PLINTHLEGS classes has been added to UNIT class as child with "System.Linq" namespace ability. The "HasParent" property of components which has no parent has been signed as "false".
- All variables has been displayed on View(Home/Index.cshtml) with simple Bootstrap 5 styles.

1

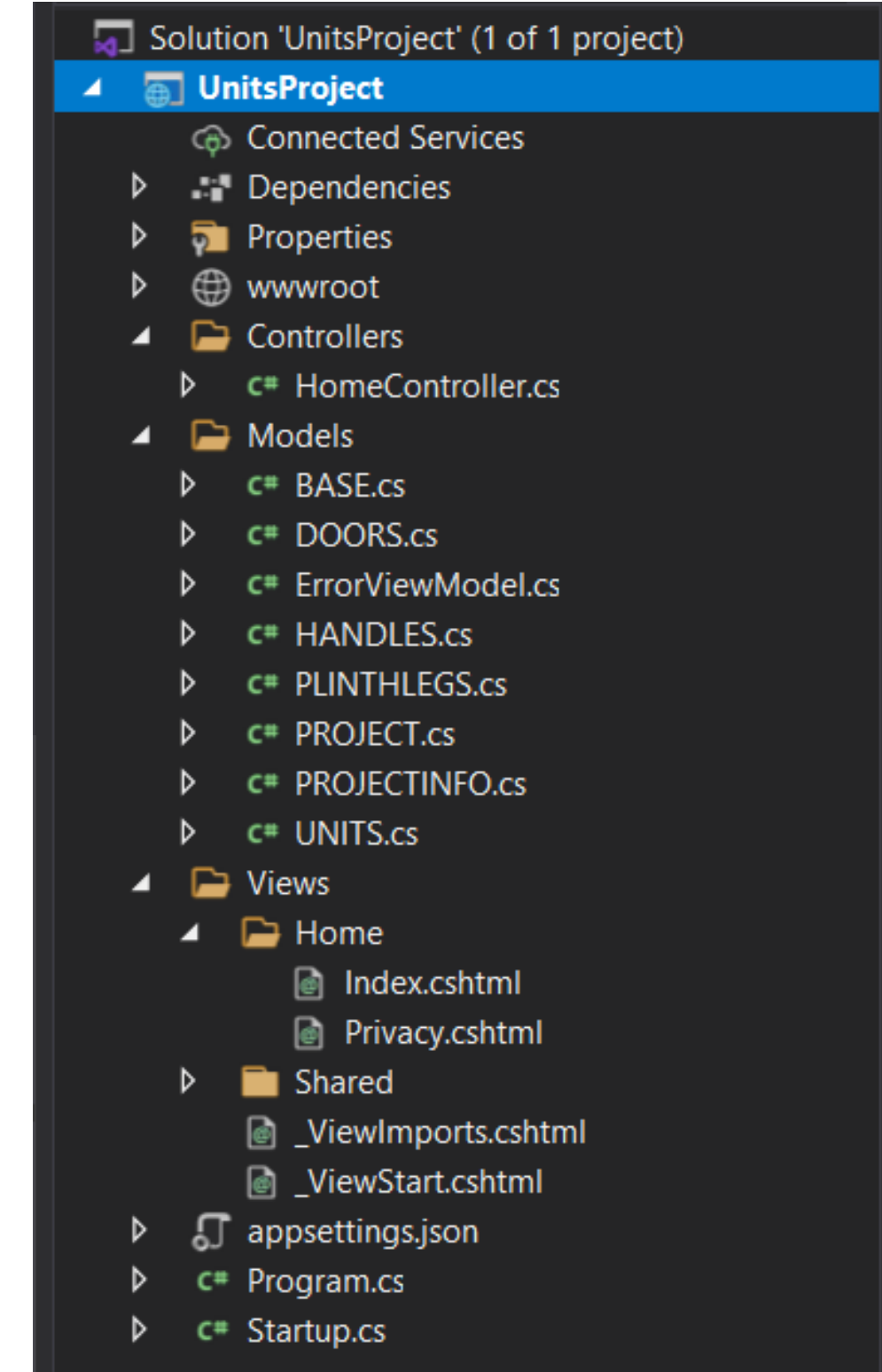
XML file reading and deserialization

```
public IActionResult Index()
{
    PROJECT UnitsProject = new PROJECT();
    string path = @"D:\Örnek Dosya.xml";
    XmlSerializer serializer = new XmlSerializer(typeof(PROJECT));
    StreamReader reader = new StreamReader(path);
    UnitsProject = (PROJECT)serializer.Deserialize(reader);
    Console.WriteLine(UnitsProject);
    reader.Close();

    foreach (var door in UnitsProject.DOORS)
    {
        var unit = UnitsProject.UNITS.FirstOrDefault(x => x.UNIQUECODE == door.MODUL);
        if (unit != null)
        {
            door.HasParent = true;
            unit.DOORS.Add(door);
        }
        else
        {
            door.HasParent = false;
        }
    }
    foreach (var handle in UnitsProject.HANDLES)
```

2

General structural view



Index.cshtml

```
Index.cshtml* X HomeController.cs* UnitsProject: Overview
1 @model GoMarketWebNetCoreAppMvc.Models.PROJECT
2 <html lang="en">
3 <head>
4 <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.2.0-beta1/dist"
5 <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.2.0-beta1/dis
6 </head>
7
8 <body>
9 <table class="table">
10 <thead>
11 <tr>
12 <th scope="col">PROJECTID</th>
13 <th scope="col">PROJECTNAME</th>
14 <th scope="col">PROJECTDESC</th>
15 <th scope="col">PROJECTDATE</th>
16 <th scope="col">PROJECTMULTIPLE</th>
17
18 </tr>
19 </thead>
20 <tbody>
21 <tr>
22 <th scope="row">@Model.PROJECTINFO.PROJECTID</th>
23 <td>@Model.PROJECTINFO.PROJECTNAME</td>
24 <td>@Model.PROJECTINFO.PROJECTDESC</td>
25 <td>@Model.PROJECTINFO.PROJECTDATE</td>
26 <td>@Model.PROJECTINFO.PROJECTMULTIPLE</td>
27
28 </tr>
29 </tbody>
30 </table>
```

```
32 @foreach (var unit in Model.UNITS)
33 {
34 <h4 class="alert alert-primary">----- UNIT Informations-----</h4>
35 <p class="alert alert-warning">
36 @unit.UNIQUECODE UNIQUECODE numaralı
37 UNIT içerisinde @unit.DOORS.Count adet DOORS, @unit.HANDLES.Count adet HANDLES,
38 @unit.PLINTHLEGS.Count adet PLINTHLEGS bulunmaktadır.
39 </p>
40 <p>@unit.UNIQUECODE</p>
41 <p>@unit.GROUP</p>
42 <p>@unit.MODEL</p>
43
44 foreach (var door in unit.DOORS)
45 {
46 <h5>----- DOOR Informations-----</h5>
47 <p>Modul: @door.MODUL</p>
48 <p>@door.GROUP</p>
49 <p>@door.MODEL</p>
50 }
51 foreach (var handle in unit.HANDLES)
52 {
53 <h5>----- HANDLE Informations-----</h5>
54 <p>@handle.MODUL</p>
55 <p>@handle.GROUP</p>
56 <p>@handle.MODEL</p>
57 }
58 foreach (var plinthleg in unit.PLINTHLEGS)
59 {
60 <h5>----- PLINTHLEG Informations-----</h5>
61 <p>@plinthleg.MODUL</p>
62 <p>@plinthleg.GROUP</p>
63 <p>@plinthleg.MODEL</p>
64 }
```


Index.cshtml

```
Index.cshtml  HomeController.cs
@*Hiçbir UNIT ile ilişkisi olmayan komponentlerin listelenmesi*@
<p class="alert alert-danger">
    Hiçbir UNIQUECODE ile eşleşmeyen komponentlerin listesi
</p>
@{
    foreach (var door in Model.DOORS)
    {
        if (door.HasParent == false)
        {
            <div class="d-grid gap-2">
                <button type="button" class="btn btn-secondary">DOOR</button>
            </div>
            <p>Modul: @door.MODUL</p>
            <p>Group: @door.GROUP</p>
            <p>Model: @door.MODEL</p>
        }
    }
    foreach (var handle in Model.HANDLES)
    {
        if (handle.HasParent == false)
        {
            <div class="d-grid gap-2">
                <button type="button" class="btn btn-warning">HANDLE</button>
            </div>
            <p>Modul: @handle.MODUL</p>
        }
    }
}
```

```
Index.cshtml  HomeController.cs
}
foreach (var handle in Model.HANDLES)
{
    if (handle.HasParent == false)
    {
        <div class="d-grid gap-2">
            <button type="button" class="btn btn-warning">HANDLE</button>
        </div>
        <p>Modul: @handle.MODUL</p>
        <p>Group: @handle.GROUP</p>
        <p>Model: @handle.MODEL</p>
    }
}
foreach (var plinthleg in Model.PLINTHLEGS)
{
    if (plinthleg.HasParent == false)
    {
        <div class="d-grid gap-2">
            <button type="button" class="btn btn-info">PLINTHLEG</button>
        </div>
        <p>Modul: @plinthleg.MODUL</p>
        <p>Group: @plinthleg.GROUP</p>
        <p>Model: @plinthleg.MODEL</p>
    }
}
```

PROJECTID	PROJECTNAME	PROJECTDESC	PROJECTDATE	PROJECTMULTIPLE
79ED4NADCR00	izim2	System.Object	20220518_141101	1

----- UNIT Informations-----

A2K_65\$1 UNIQUECODE numaralı UNIT içerisinde 2 adet DOORS, 2 adet HANDLES, 1 adet PLINTHLEGS bulunmaktadır.

UniqueCode: A2K_65\$1

Group: UNITS

Model: A17ALU

DOOR

Modul: A2K_65\$1

Group: DOORS

Model: DenemeModel

DOOR

Modul: A2K_65\$1

Group: DOORS

Model: A17ALU

HANDLE

Modul: A2K_65\$1

Group: HANDLES

Model: KULPA17

HANDLE

Modul: A2K_65\$1

Group: HANDLES

Model: KULPA17

PLINTHLEG

Modul: A2K_65\$1

Group: PLINTHLEG

Model:

Hiçbir UNIQUECODE ile eşleşmeyen komponentlerin listesi

DOOR

Modul: deneme

Group:

Model:

PLINTHLEG

Modul: bazaayak15

Group: PLINTHLEGS

Model:

Thank you!

Thank you for your project request. I hope it helps your evaluation process. I will glad to work with you for a long time. And thinking about sign new projects with your team is make me excited.

Best Regards.

GÖKTUĞ ÖZEL

