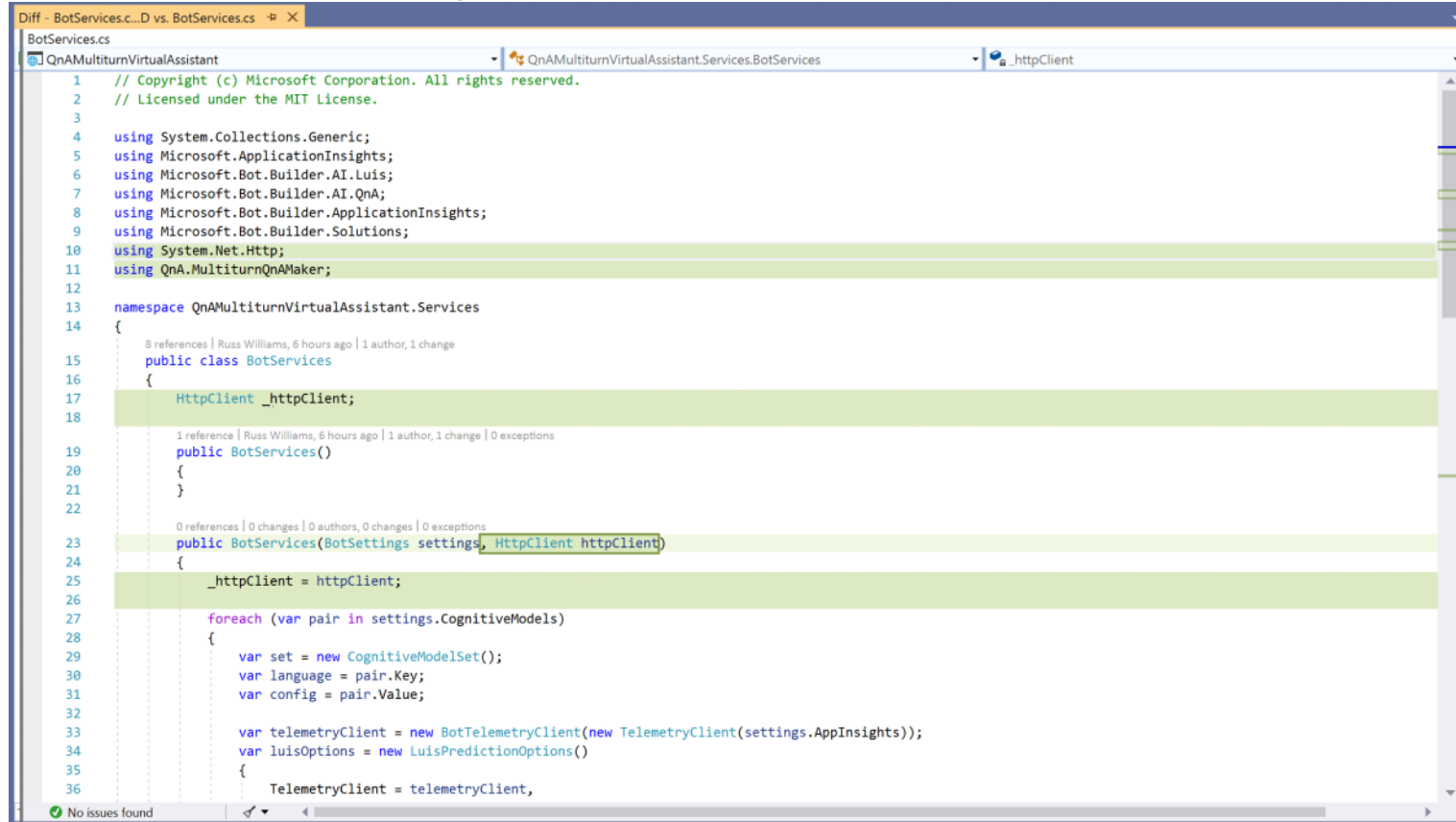


Changes to BotServices.cs

Thursday, June 13, 2019 1:25 AM

There are two sets of changes you need to make to the BotServices.cs file.

Diff screen shot to show first set of changes to BotServices.cs



```
1 // Copyright (c) Microsoft Corporation. All rights reserved.
2 // Licensed under the MIT License.
3
4 using System.Collections.Generic;
5 using Microsoft.ApplicationInsights;
6 using Microsoft.Bot.Builder.AI.Luis;
7 using Microsoft.Bot.Builder.AI.QnA;
8 using Microsoft.Bot.Builder.ApplicationInsights;
9 using Microsoft.Bot.Builder.Solutions;
10 using System.Net.Http;
11 using QnA.MultiturnQnAMaker;
12
13 namespace QnAMultiturnVirtualAssistant.Services
14 {
15     8 references | Russ Williams, 6 hours ago | 1 author, 1 change
16     public class BotServices
17     {
18         HttpClient _httpClient;
19
20         1 reference | Russ Williams, 6 hours ago | 1 author, 1 change | 0 exceptions
21         public BotServices()
22         {
23
24         0 references | 0 changes | 0 authors, 0 changes | 0 exceptions
25         public BotServices(BotSettings settings, HttpClient httpClient)
26         {
27             _httpClient = httpClient;
28
29             foreach (var pair in settings.CognitiveModels)
30             {
31                 var set = new CognitiveModelSet();
32                 var language = pair.Key;
33                 var config = pair.Value;
34
35                 var telemetryClient = new BotTelemetryClient(new TelemetryClient(settings.AppInsights));
36                 var luisOptions = new LuisPredictionOptions()
37                 {
38                     TelemetryClient = telemetryClient,
39                 }
40             }
41         }
42     }
43 }
```

Snippet for easy cut & paste (Click Download button and Open to copy bolded lines)

```
using System.Collections.Generic;
using Microsoft.ApplicationInsights;
using Microsoft.Bot.Builder.AI.Luis;
using Microsoft.Bot.Builder.AI.QnA;
using Microsoft.Bot.Builder.ApplicationInsights;
using Microsoft.Bot.Builder.Solutions;
using System.Net.Http;
using QnA.MultiturnQnAMaker;

namespace QnAMultiturnVirtualAssistant.Services
{
    public class BotServices
    {
        HttpClient _httpClient;

        public BotServices()
        {
        }

        public BotServices(BotSettings settings, HttpClient httpClient)
        {
            _httpClient = httpClient;

            foreach (var pair in settings.CognitiveModels)
            {
                var set = new CognitiveModelSet();
                var language = pair.Key;
                var config = pair.Value;

                var telemetryClient = new BotTelemetryClient(new TelemetryClient(settings.AppInsights));
                var luisOptions = new LuisPredictionOptions()
                {
                    TelemetryClient = telemetryClient,
                }
            }
        }
    }
}
```

Diff screen shot to show second set of changes to BotServices.cs

```
Diff - BotServices.c...D vs. BotServices.cs
BotServices.cs
QnAMultiturnVirtualAssistant QnAMultiturnVirtualAssistant.Services.BotServices BotServices(BotSettings settings, HttpClient httpClient)
36 TelemetryClient = telemetryClient,
37 LogPersonalInformation = true,
38 };
39
40 var dispatchApp = new LuisApplication(config.DispatchModel.AppId, config.DispatchModel.SubscriptionKey, config.DispatchModel.GetEndpoint());
41
42 set.DispatchService = new LuisRecognizer(dispatchApp, luisOptions);
43
44 if (config.LanguageModels != null)
45 {
46     foreach (var model in config.LanguageModels)
47     {
48         var luisApp = new LuisApplication(model.AppId, model.SubscriptionKey, model.GetEndpoint());
49         set.LuisServices.Add(model.Id, new LuisRecognizer(luisApp, luisOptions));
50     }
51 }
52
53 foreach (var kb in config.Knowledgebases)
54 {
55     var qnaEndpoint = new QnAMakerEndpoint()
56     {
57         KnowledgeBaseId = kb.KbId,
58         EndpointKey = kb.EndpointKey,
59         Host = kb.Hostname,
60     };
61
62     var qnaMaker = new MultiturnQnAMaker(qnaEndpoint, _httpClient, telemetryClient: telemetryClient, logPersonalInformation: true);
63     set.QnAServices.Add(kb.Id, qnaMaker);
64 }
65
66 CognitiveModelSets.Add(language, set);
67 }
68 }
69
70 4 references | Russ Williams, 6 hours ago | 1 author, 1 change | 0 exceptions
71 public Dictionary<string, CognitiveModelSet> CognitiveModelSets { get; set; } = new Dictionary<string, CognitiveModelSet>();
72 }
```

Snippet for easy cut & paste (Click Download button and Open to copy bolded lines)

```
foreach (var kb in config.Knowledgebases)
{
    var qnaEndpoint = new QnAMakerEndpoint()
    {
        KnowledgeBaseId = kb.KbId,
        EndpointKey = kb.EndpointKey,
        Host = kb.Hostname,
    };

    var qnaMaker = new MultiturnQnAMaker(qnaEndpoint, _httpClient, telemetryClient: telemetryClient, logPersonalInformation: true);
    set.QnAServices.Add(kb.Id, qnaMaker);
}
```