Moodle API

Supported Platforms

It should work on any platform that supports "UnityWebRequest" class:

https://docs.unity3d.com/Manual/UnityWebRequest.html

You can have your own http requests implementation by you or a third party asset implementing "IRequest" interface and setting like this:

MoodleAPI.Instance.Request = new MyRequestImplementation();

Features

- **Supports Moodle 3.0+** (some endpoints may require a greater version).
- **Initial implementation it's Scorm oriented so if you need any endpoint that it's not available yet, I can implement it really fast.**
- **Full object oriented API** (you don't deserialize anything, it's already done it for you).
- **C# Source code** included.
- **Documentation** available.
- **Easy integration** to your Unity project.
- Well **organized and structured** code.
- **Event based**. Example: *OnScormTracksInserted*(MoodleAPI sender, uint[] trackIds)
- **Fully testable in editor**: You can also log Moodle original endpoint url and JSON response.
- **Examples** available. You can find editor test runner tests that shows how to use the available API.
- Requires Unity 5.3+ (by default uses **UnityWebRequest**) but **you can make it 5.0, 5.1, 5.2 backwards compatible** implementing**:**
  - **IWebRequest:** Interface to make requests. You can use [Best HTTP](#) that is backwards compatible.
  - **IWebRequestFactory:** Interfaces that creates requests.

Getting started

Moodle configuration

You need to enable Mobile web services following this guide:

http://docs.moodle.org/34/en/Mobile_web_services#Enabling_mobile_web_services

Note: That guide is for Moodle 3.4, change it if you are using other version.

In the following page you will be able to configure debugging information that it's really useful during development phase:

{HOST}**/admin/settings.php?section=debugging**

Here you can check if you have correctly configured web services:

{HOST}**/admin/settings.php?section=externalservices**

Unity configuration

1. Add the "Moodle API" component.
2. Set the "Host" value in the inspector (or by code). Example: "http://localhost".
3. Start using the endpoints.

Basic example

```
MoodleAPI api = GetComponent<MoodleAPI>();
api.OnTokenRetrieved += sender => {
    // I'm logged in
    IDictionary<string, string> result = new ScormDataBuilder()
                    .SetLessonStatus("completed")
                    .SetMinScore(0)
                    .SetMaxScore(100)
                    .SetRawScore(75)
                    .SetSessionTime(new TimeSpan(1, 10, 25))
                    .Build();

    api.InsertScormTracks(1, 1, result);
};
api.GetToken("user_01", "1234"); // Login

api.OnScormTracksInserted += (sender, trackIds) => {
    // Scorm attempt recorded
};
```

API Reference

General

Events

public delegate void TokenHandler(MoodleAPI sender);
public event TokenHandler **OnTokenRetrieved**;
 	
public delegate void UserDetailsHandler(MoodleAPI sender, User[] users);
public event UserDetailsHandler **OnUserDetailsRetrieved**;

Methods
public void **GetToken**(string username, string password); public void **GetToken**(string username, string password, string service); public void **GetUser**(string field, string value);

Scorm

Events

public delegate void ScormHandler(MoodleAPI sender, Scorm[] scorms);
public event ScormHandler **OnScormsRetrieved**;
 	
public delegate void ScormAttemptHandler(MoodleAPI sender, int count);
public event ScormAttemptHandler **OnScormAttemptsRetrieved**;
 	
public delegate void ScormScoHandler(MoodleAPI sender, Sco[] scoes);
public event ScormScoHandler **OnScormScoesRetrieved**;
 	
public delegate void ScormScoTrackHandler(MoodleAPI sender, ScoTrack scoTrack);
public event ScormScoTrackHandler **OnScormScoTracksRetrieved**;
 	
public delegate void ScormUserDataHandler(MoodleAPI sender,
ScormUserElementData[] scoes);
public event ScormUserDataHandler **OnScormUserDataRetrieved**;
 	
public delegate void ScormTracksInserteHandler(MoodleAPI sender, uint[] trackIds);
public event ScormTracksInserteHandler **OnScormTracksInserted**;
 	
public delegate void ScormScoLaunchHandler(MoodleAPI sender, bool result);
public event ScormScoLaunchHandler **OnScormScoLaunched**;
 	
public delegate void ScormViewHandler(MoodleAPI sender, bool result);
public event ScormViewHandler **OnScormViewed**;

Methods
public void **GetScorms**(); public void **GetScorms**(IList<uint> courseIds); public void **GetScormAttemptCount**(uint scormId, uint userId); public void **GetScormScoes**(uint scormId); public void **GetScormScoes**(uint scormId, string organization); public void **GetScormScoTracks**(uint scoId, uint userId); public void **GetScormScoTracks**(uint scoId, uint userId, int attempt); public void **GetScormUserData**(uint scormId, int attempt); public void **InsertScormTracks**(uint scoId, uint attempt, ICollection<KeyValuePair<string, string>> data); public void **ScormLaunchSco**(uint scormId); public void **ScormLaunchSco**(uint scormId, uint scoId); public void **ScormView**(uint scormId);

FAQ

1. **Why am I getting 'Access control exception' error?**

Check the following page:

https://docs.moodle.org/22/en/Web_services_FAQ#What_is_the_.27Access_control_exception.27_error