# Unity Ads Support Evaluation

# Instructions

This assignment is meant to evaluate a candidate's ability to provide efficient and effective support. Please complete each section to the best of your abilities. If you have questions about this exercise, please ask as soon as possible, in order to give yourself more time to complete it.

# 1. Practical

This section is meant to evaluate a candidate’s technical ability. You will be creating a simple mobile application that integrates MoPub mediation and can show Unity Ads in the top waterfall position. Many of our customers integrate Unity Ads via a third-party mediation partner. Understanding that integration process will help debug customer issues.

You must integrate Rewarded Video and full-screen Interstitial ads. You will need accounts for github, MoPub, and Unity to complete this exercise.

### App functionality

* The app will contain five buttons.
  + One button will initialize the MoPub SDK.
  + One button will load an interstitial ad.
  + One button will load a rewarded video ad.
  + One button will show an interstitial ad.
  + One button will show a rewarded video ad.
* After an interstitial ad is shown, the app will display the completion status (i.e. whether the ad was watched to completion or skipped).
* After a rewarded ad is completed, a counter is incremented. The counter only needs to show the completed videos for a single session.

You can choose the development platform of your choice between the following:

* Android Studio
* XCode
* Unity

### Additional Requirements

* Device Log
  + You will also need to provide a text file with a device log.
  + Only logs from your app are required. All other information can be omitted from the device log.
  + Our forums have a guide to viewing and collecting the [Android device logs](https://forum.unity.com/threads/how-to-capturing-device-logs-on-android.528680/) and [iOS device logs](https://forum.unity.com/threads/how-to-capturing-device-logs-on-ios.529920/).

### Bonus Objective (Not Required)

* Charles Proxy log
  + You will need to provide a [Charles Proxy log](https://www.charlesproxy.com/download/) from a device running the application.
  + Only calls to Unity and MoPub urls are required. All other records can be deleted from the log.
  + You can find more information about installing and using [Charles proxy in our documentation](https://support.unity.com/hc/en-us/articles/115002917683-Using-Charles-Proxy-with-Unity).
  + **Note:** For Android OS above 7.0, you will need to add additional settings in your Android Manfiest to allow for Charles Proxy traffic to be monitored.

### Expected Deliverables

* A link to the github repository with the completed project
* A device log from either an Android or iOS device
* A Charles proxy file with a session from an Android or iOS device (optional)

# 2. Support

The following are examples of some of the issues we see on a daily basis. Most arrive though our Zendesk ticketing system, while some arrive by email or through the Unity forums. Most of these issues will require research though the documentation ([Unity Ads Knowledge Base](https://unityads.unity3d.com/help/index)), [our forums](https://forum.unity.com/forums/unity-ads.67/) or partner documentation.

1. Please review the issues below and number them 1 through 5 based on the order in which you would handle them. Briefly describe your process for prioritizing the issues.
2. Then write a response for each support request, as you would on the job. **Your response should be directed to the customer.** Your response can be a resolution if possible or a request for more information. If more information is necessary, please be thorough in what information is required.
3. Describe what actions you would take next to resolve the issue, if necessary.

## Solution:

1. Order of prioritization:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Question 1 | Question 2 | Question 3 | Question 4 | Question 5 |
| Fourth | Third | First | Fifth | Second |

**Reason:**

The first thing I do when prioritizing tasks is to observe the date in which they arrived, for this case it does not apply since this information was not provided, the second thing is to read each question to know which ones I can solve faster, so I solved questions 3 and 5 first, question 2 I prioritized above 1 and 4 because of the keyword "urgent", but honestly I had to do a research to solve them (1,2 and 3).

## Question 1

Via Zendesk

|  |
| --- |
| Hello  I just released my game and I have ad impressions, but I can’t make any money. Please help!    Sincerely,  Chris |

**Response:**

Hello Chris,

Greetings from Unity technologies. I’m Esteban from the Services Support team.

Unity ads works under the eCPM system (effective cost per 1,000 impressions), so you must increase your eCPM to make money with Ads in your game. There are multiple ways to increase the eCPM and take advantage of the best impressions in your game, this depends on several factors, such as regional prices and the type of billing. You can get more information on how to increase your eCPM and set goals in the following link: <https://unityads.unity3d.com/help/resources/ecpm-targets>

Best regards,

Esteban J.

Services Support Engineer

Unity technologies.

## Question 2

Via email forwarded from Business Development team

|  |
| --- |
| Hello,  We have an urgent issue with one of our most popular titles.  We have received reports from customers that ads stop functioning correctly after some amount of time in our game. We checked our diagnostics and in all cases the last attempted ad was from Unity.  Since users receive rewards from watching ads, this is a major disruption to player experience.  This issue seems to be correlated with the last update we made to the Unity Ads SDK (3.6.0) and the corresponding adapters for MoPub mediation. Additionally, the issue only seems to be present on Android.  We have suspended all Unity Ads in this title until this issue is resolved.  Thank you,  Marie |

**Reponse:**

Hello Marie,

Greetings from Unity technologies. I’m Esteban from the Services Support team.

We are sorry for the inconveniences that have been generated in the monetization of your game. It is possible that the problem is due to the version of the Unity Ads SDK, in this case it should be solved by upgrading to version 3.6.0.1 where the development team solved a problem like yours. see more at: <https://github.com/mopub/mopub-android-mediation/blob/master/UnityAds/CHANGELOG.md>

If the problem persists you will need to send me some more information. The versions of Unity and the MoPub SDK you are using and if possible, a text file with the messages that debug your application, for this you can follow this guide: <https://forum.unity.com/threads/how-to-capturing-device-logs-on-android.528680/>

Best regards,

Esteban J.

Services Support Engineer

Unity technologies.

**Next steps to do if the problem persists:**

* Check version compatibility between Unity, Unity Ads and MoPub.
* Check the log file provided by the client for any errors handled by the ads SDK events or any other strange errors within the application.

## Question 3

Via the forum

|  |
| --- |
| My game is coming along and I want to start putting in ads. I added the Ads package and right now the ad just starts when I start the level. How can I let the player choose to watch an ad after the end of the level? And how do I give the player more coins after they finish watching the ad?   * Katie   using UnityEngine;  using UnityEngine.Advertisement;  public class Level : Monobehaviour  {  public string GameID = "123456";  public string adUnit = "rewardedVideo";  public PlayerController Player;  public int coinAmount;  public void Awake()  {  Advertisements.Initialize(GameID);  Advertisements.Show(adUnit);  }  //Where do I call this?  public void GiveCoins()  {  Player.GiveCoins(coinAmount);  }  } |

**Response:**

Hello Katie,

Greetings from Unity technologies. I’m Esteban from the Services Support team.

As I see in the code you shared with us, you are inizializing the ads in the awake method of the class, additionally (in the following line) you show the first ad, that is why the ad appears just when the level starts. To change it you must delete this second line of code in the awake method and create a public method that you can call at any time you want to display the ad as follows:

public void Awake()

{

Advertisement.Initialize(GameID); //Just initialize the Ads

}

public void ShowMyAd()

{

Advertisement.Show(adUnit); //Show the ad

}

On the other hand, to know when to reward the player for viewing the ad, it is necessary to implement the IUnityAdsListener interface. With this interface you implement the OnUnityAdsDidFinish method that is executed at the moment the player finished watching the ad and gives you the information you need to know how was the player's interaction with the ad.

In the following code I will give you an example of how you can do it:

public class Level : MonoBehaviour, IUnityAdsListener

{

public string GameID = "123456";

public string adUnit = "rewardedVideo";

public int coinAmount;

private void Start()

{

Advertisement.AddListener(this); //Set this class as listener for the ads events

Advertisement.Initialize(GameID);

}

public void ShowMyAd()

{

Advertisement.Show(adUnit);

}

public void GiveCoins()

{

//Add coins to the player

}

public void OnUnityAdsDidFinish(string placementId, ShowResult showResult)

{

switch (showResult)

{

case ShowResult.Failed: //Do something if the ad failed

break;

case ShowResult.Skipped: //Do something if the user skipped the ad

break;

case ShowResult.Finished: //Do something if the user finished the ad

if(placementId == adUnit)

GiveCoins(); //In this case we give the coins

break;

default:

break;

}

}

public void OnUnityAdsReady(string placementId)

{

// When the unity ads initialize is ready

}

public void OnUnityAdsDidError(string message)

{

// When the unity ads has any error

}

public void OnUnityAdsDidStart(string placementId)

{

// When the unity ads did start

}

}

Also, you will see that the code that you had in the Awake method I have moved it to the Start method, this is a recommendation to avoid any possible error that can be generated when initializing the announcements in the awakening of the level since there can exist dependencies that have not been loaded.

I hope this information has been helpful for you, additionally I leave you the link to the documentation so you can read a little more. <https://unityads.unity3d.com/help/unity/api-unity>

Best regards,

Esteban J.

Services Support Engineer

Unity technologies.

## Question 4

Via Zendesk

|  |
| --- |
| Hello,  I am just about to finish my first ever video game and it’s all thanks to Unity! I am just about to publish it to itch.io and I was thinking about putting ads into it to maybe earn some money. I don’t think it will be very much, but I figured it doesn’t hurt to try. If I wanted to put my game on itch.io or some other website, how would ads work in that case? Would they be taken to the itch.io homepage when they click on the ads? What if the game isn’t on the site? I know ads are usually for mobile games, but I don’t know if my game is good enough to put in the Google or Apple stores.  I’m new to all of this so sorry for asking a lot of dumb questions.  Thanks,  Gineton |

**Response:**

Hello Gineton,

Greetings from Unity technologies. I’m Esteban from the Services Support team.

There is no such thing as a dumb question, unity's support team is happy to help.

In order to answer your questions, unfortunately the unity ads library only works for android or ios mobile devices, but it is possible to show ads in your web games using third-party services (Google ads, AppLixir...) in the documentation of the service you choose you will find the way to implement your ads and manage the events, as a suggestion it is good to have knowledge in web technologies (HTML and JS). The moment a user click on your ad a second tab will open in your browser that will redirect him to the advertiser's site. Regardless of the server where your game is hosted, the ad should perform the redirection.

I also invite you to launch your game for mobile platforms, mobile games have more audience than web games and you will have more ads providers to choose from such as Unity Ads.

I hope you have a great day and if there is anything else we can help you with we will be happy to do so.

Best regards,

Esteban J.

Services Support Engineer

Unity technologies.

## Question 5

Via Zendesk

|  |
| --- |
| I cannot for the life of me get your stupid Ads SDK to work right. Why don’t you try making a product that’s actually usable instead of wasting time on building crap for car showrooms or factories?  This script should show rewarded ads when ShowAd(true) is called from my game’s UI and interstitial ads when ShowAd(false) is called. At first I could get interstitial ads to show, but then I thought maybe rewarded ads take longer to initialize, so I changed how I was initializing, and now it still initializes but no ads are showing. And since I can’t show rewarded ads, I don’t even know if the reward actually works! None of this makes any sense! Why should I keep using this if it doesn’t even work for something this basic!   * Steven   using System.Collections;  using System.Collections.Generic;  using UnityEngine;  using UnityEngine.Advertisements;  public class AdsManager : MonoBehaviour, IUnityAdsListener  {  string rewardedAdUnit = "rewardedVideo";  string interstitialAdUnit = "video";  string gameId = "1234567";  bool showRewardedAd = false;  bool initializedCorrectly = false;  void Start()  {  StartCoroutine(WaitForInit());  }  public void ShowAd(bool isRewarded)  {  if (initializedCorrectly == true)  {  bool showRewardedAd = isRewarded;  if (showRewardedAd)  {  Advertisement.Show(rewardedAdUnit);  }  Advertisement.Show(interstitialAdUnit);  }  }  public void GiveExtraLife()  {  Debug.Log("Add to player lives");  }  IEnumerator WaitForInit()  {  Advertisement.Initialize(gameId);  while (Advertisement.isInitialized)  {  yield return null;  }  initializedCorrectly = Advertisement.isInitialized;  Debug.Log("Initialized");  }  public void OnUnityAdsReady(string placementId)  {  }  public void OnUnityAdsDidError(string message)  {  Debug.Log(message);  }  public void OnUnityAdsDidStart(string placementId)  {  }  public void OnUnityAdsDidFinish(string placementId, ShowResult showResult)  {  //Rewarded ad was shown, so give reward  if(showRewardedAd == true)  {  GiveExtraLife();  showRewardedAd = false;  }  }  } |

**Response:**

Hello Steven,

Greetings from Unity technologies. I’m Esteban from the Services Support team.

First of all I apologize for any inconvenience that the integration of ads with Unity may have caused you, we are continuously trying to improve our products to satisfy our users.

I have taken a look at your code and for the most part it is fine, you just need to make a few small changes so that the ads are initialized correctly.

* In the coroutine "WaitForInit" you must change the verification of the while loop, because as you had it before the loop was not executed at any time.

IEnumerator WaitForInit()

{

Advertisement.Initialize(gameId);

// change Advertisement.isInitialized to !Advertisement.isInitialized

while (!Advertisement.isInitialized)

{

yield return null;

}

initializedCorrectly = Advertisement.isInitialized;

Debug.Log("Initialized " + initializedCorrectly);

}

* On the other hand, I made a small correction in the "ShowAd" method because as you implemented it before, "Advertisement.Show" was going to be executed for both ads at the same time.

public void ShowAd(bool isRewarded)

{

if (initializedCorrectly == true)

{

bool showRewardedAd = isRewarded;

if (showRewardedAd) //True for rewarded ad

{

Advertisement.Show(rewardedAdUnit);

}

else //False for interstitial ad

{

Advertisement.Show(interstitialAdUnit);

}

}

}

* Finally, so that you can correctly use the response events of the ad library you must configure your class as a listener and to know when to reward the player in the method "OnUnityAdsDidFinish" use the response of "showResult" to know if the player indeed watched the ad completely.

void Start()

{

//Set this class as listener for the ads events

Advertisement.AddListener(this);

StartCoroutine(WaitForInit());

}

public void OnUnityAdsDidFinish(string placementId, ShowResult showResult)

{

switch (showResult)

{

case ShowResult.Failed:

break;

case ShowResult.Skipped:

break;

case ShowResult.Finished:

if (showRewardedAd == true)

{

GiveExtraLife();

showRewardedAd = false;

}

break;

default:

break;

}

}

I hope this information is helpful for you, if you need more help, do not hesitate to contact us and we will be happy to help you.

Documentation that may be useful for you: <https://unityads.unity3d.com/help/unity/api-unity>

Best regards,

Esteban J.

Services Support Engineer

Unity technologies.