Adapter-based authentication in native Android applications

fork and edit tutorial (https://github.ibm.com/MFPSamples/DevCenter/tree/master/tutorials/en/foundation/6.3/authentication-security/adapter-based-authentication/adapter-based-authentication-native-android-applications.html) | report issue (https://github.ibm.com/MFPSamples/DevCenter/issues/new) This is a continuation of the Adapter-based authentication (.../) tutorial.

Creating the client-side authentication components

Create a native Android application and add the MobileFirst native APIs following the documentation. Add an Activity, LoginAdapterBasedAuth, that will handle and present the login form. Remember to add this Activity to the AndroidManifest.xml file as well.

Create a MyChallengeHandler class as a subclass of ChallengeHandler.

isCustomResponse checks every custom response received from MobileFirst Server to see if that's the challenge we are expecting. In the example adapter code a authRequired variable is sent for this purpose.

```
public boolean isCustomResponse(WLResponse response) {
   try {
      if(response!= null&&
        response.getResponseJSON()!=null &&
        response.getResponseJSON().isNull("authRequired") != true &&
        response.getResponseJSON().getBoolean("authRequired") == true)
   {
      return true;
   }
   catch (JSONException e) {
      e.printStackTrace();
   }
   return false;
}
```

handleChallenge is called after the isCustomResponse method returned true. Here we use this method to present our login form.

```
public void handleChallenge(WLResponse response){
  cachedResponse = response;
  Intent login = new Intent(parentActivity, LoginAdapterBasedAuth.class);
  parentActivity.startActivityForResult(login, 1);
}
```

In submitLogin, if the user asked to abort this action we use the submitFailure() method, otherwise we invoke our adapter authentication procedure using the submitAdapterAuthentication() method.

```
public void submitLogin(int resultCode, String userName, String password, boolean back){
if (resultCode != Activity.RESULT_OK || back) {
    submitFailure(cachedResponse);
} else {
    Object[] parameters = new Object[]{userName, password};
    WLProcedureInvocationData invocationData = new WLProcedureInvocationData("NativeAdapterBasedAdapter", "su bmitAuthentication");
    invocationData.setParameters(parameters);
    WLRequestOptions options = new WLRequestOptions();
    options.setTimeout(30000);
    submitAdapterAuthentication(invocationData, options);
}
```

In the Main Activity class, connect to the MobileFirst server, register your challengeHandler and invoke the protected adapter procedure.

The procedure invocation will trigger the MobileFirst server to send a challenge that will trigger our challengeHandler.

```
final WLClient client = WLClient.createInstance(this);
client.connect(new MyConnectionListener());
challengeHandler = new AndroidChallengeHandler(this, realm);
client.registerChallengeHandler(challengeHandler);
invokeBtn = (Button) findViewByld(R.id.invoke);
invokeBtn.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
        WLProcedureInvocationData invocationData = new WLProcedureInvocationData("DummyAdapter", "getSecretData")
;
    WLRequestOptions options = new WLRequestOptions();
    options.setTimeout(30000);
    client.invokeProcedure(invocationData, new MyResponseListener(), options);
}
});
```

Sample application

Click to download

(http://public.dhe.ibm.com/software/products/en/MobileFirstPlatform/docs/v630/NativeAdapterBasedAuthProject.zip) the Studio project.

Click to download

(http://public.dhe.ibm.com/software/products/en/MobileFirstPlatform/docs/v630/AndroidNativeAdapterBasedAuthProject.zip) the Native project.





