Custom Authenticator and Login Module in native Android applications

This is a continuation of Custom Authenticator and Login Module (../).

Creating the client-side authentication components

Create a native Android application and add the IBM MobileFirst Platform Foundation native APIs following the documentation.
Add an Activity, `LoginCustomLoginModule`, 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`.
`MyChallengeHandler` `should implement 2 main methods:`

- `isCustomResponse`
- `HandleChallenge`

`In our sample we add another method to present and handle the received data from our form (``submitLogin`).

`isCustomResponse`

`This method checks every custom response received from the MobileFirst Server to see if that's the challenge we are expecting.`

```
public boolean isCustomResponse(WLResponse response) {
 if (response == null || response.getResponseJSON() == null) {
  return false;
 }
 if(response.toString().indexOf("authStatus") > -1){
  return true;
 }
 else{
  return false;
 }
}
```

`handleChallenge`

`This method is called after the` `isCustomResponse method returned` *`true`*`.`

`Here we use this method to present our login form.`

```
public void handleChallenge(WLResponse response){
 try {
  if(response.getResponseJSON().getString("authStatus") == "complete"){
   submitSuccess(response);
  }
  else {
   cachedResponse = response;
   Intent login = new Intent(parentActivity, LoginCustomLoginModule.class)
;
   parentActivity.startActivityForResult(login, 1);
  }</p>
<p> } catch (JSONException e) {
  e.printStackTrace();
 }
}
```

submitLogin

If the user asked to abort this action we use `submitFailure()` method, otherwise we send the information we collected from our login form to our custom authenticator using `submitLoginForm()` method.

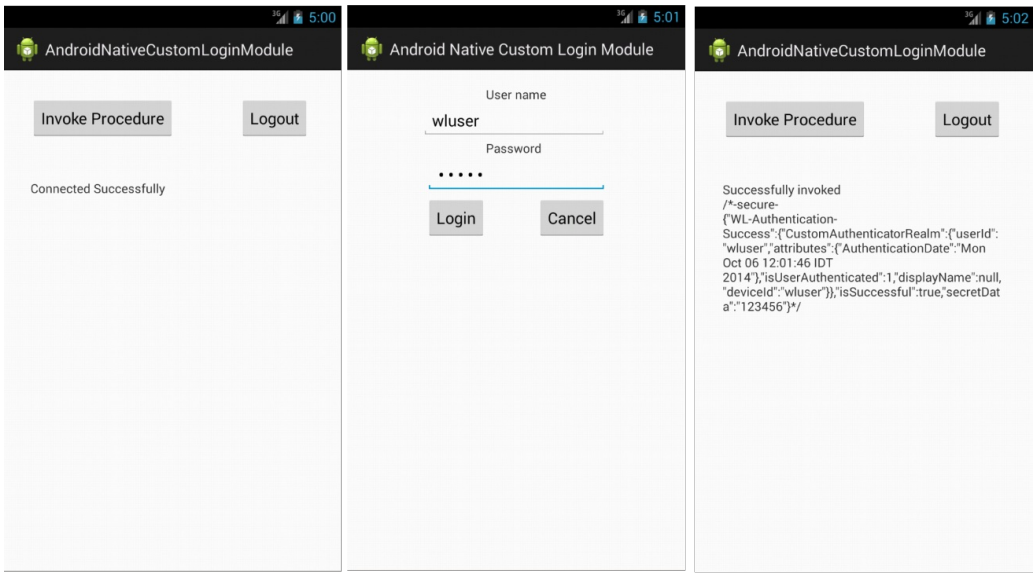
```
public void submitLogin(int resultCode, String userName, String password, boolean back){
 if (resultCode != Activity.RESULT_OK || back) {
  submitFailure(cachedResponse);
 } else {
  HashMap<String, String> params = new HashMap<String, String>();
  params.put("username", userName);
  params.put("password", password);
  submitLoginForm("/my_custom_auth_request_url", params, null, 0, "post");
 }
}
```

Main Activity

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) findViewById(R.id.invoke);
invokeBtn.setOnClickListener(new View.OnClickListener() {
 @Override
 public void onClick(View v) {
  WLProcedureInvocationData invocationData = new WLProcedureInvocationData("DummyAdapter", "ge
tSecretData");
  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/NativeCustomLoginModuleProject.zip) the Studio project.
Click to download (http://public.dhe.ibm.com/software/products/en/MobileFirstPlatform/docs/v630/AndroidNativeCustomLoginModuleProject.zip) the Native project.