Adapter-based authentication in native iOS 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-ios-applications.html) | report issue (https://github.ibm.com/MFPSamples/DevCenter/issues/new)

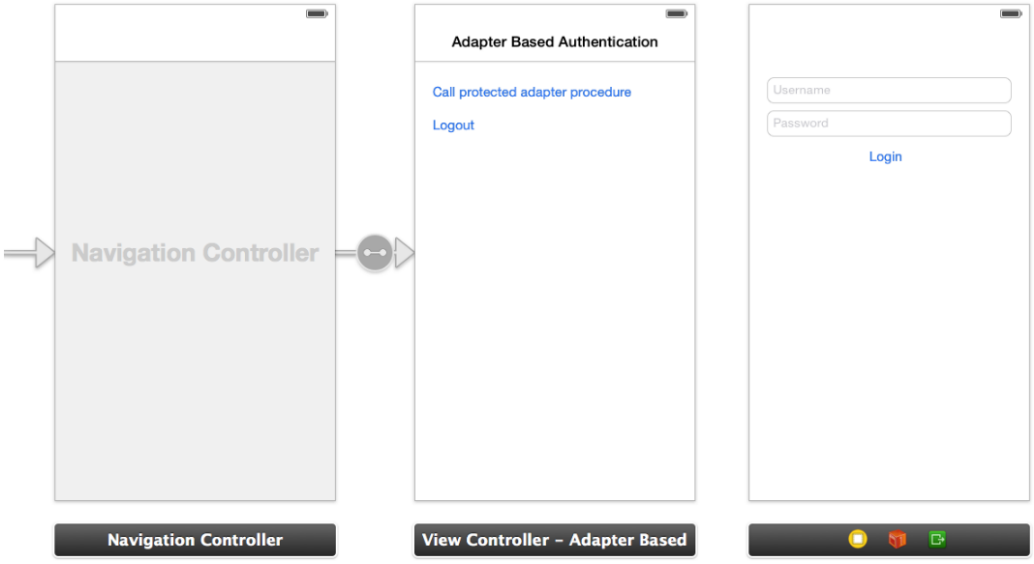
This is a continuation of the Adapter-based authentication (../) tutorial.

Creating the client-side authentication components

Create a native iOS application and add the MobileFirst native APIs following the documentation.

StoryBoard

In your storyboard, add a ViewController containing a login form.



ChallengeHandler

Create a `MyChallengeHandler` class as a subclass of `ChallengeHandler`
We will implement some of the `ChallengeHandler` methods to respond to the form-based challenge.

```
@interface MyChallengeHandler : ChallengeHandler
@property ViewController* vc;
//A convenient way of updating the View
-(id)initWithViewController: (ViewController*) vc;
@end
```

Before calling your protected adapter, make sure to register your challenge handler using `WLClient`'s `registerChallengeHandler`.

```
[[WLClient sharedInstance] registerChallengeHandler:[[MyChallengeHandler alloc] initWithViewController:self] ];
```

The `isCustomResponse` method of the challenge handler is invoked each time that a response is received from the server. It is used to detect whether the response contains data that is related to this challenge handler. It must return either `true` or `false`.

```
@implementation MyChallengeHandler
//...
-(BOOL) isCustomResponse:(WLResponse *)response {
    NSLog(@"Inside isCustomResponse");
    if(response &amp;amp;&amp;amp; [response getResponseJson]){
        if ([[response getResponseJson] objectForKey:@"authRequired"]) {
            NSLog(@"Detected adapter auth - return true");
            NSString* authRequired = (NSString*) [[response getResponseJson] objectForKey:@"authRequired"
];
            return [authRequired boolValue]; //return if auth is required
        }
    }
    return false;
}
@end
```

If `isCustomResponse` returns `true`, the framework calls the `handleChallenge` method. This function is used to perform required actions, such as hide application screen and show login screen.

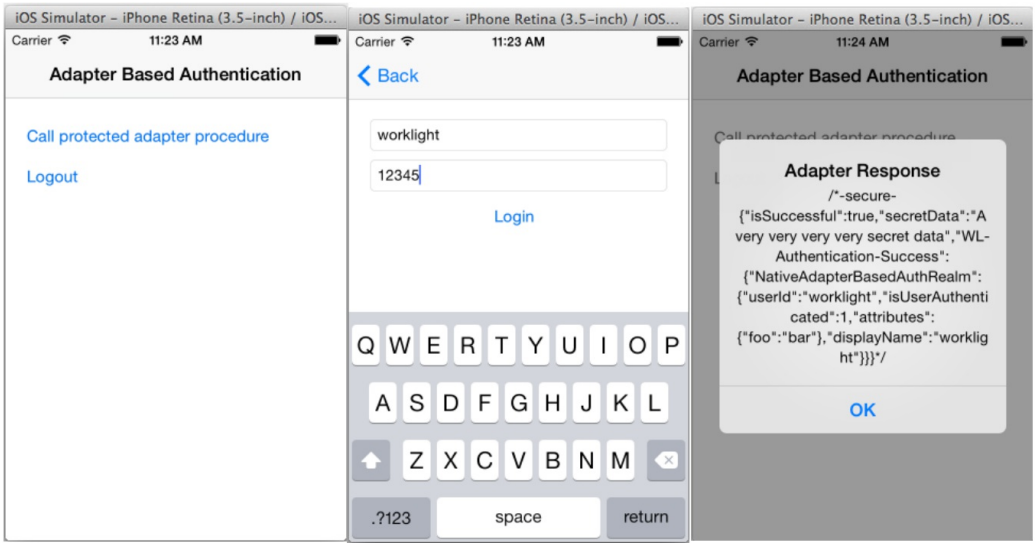
```
@implementation MyChallengeHandler
//...
-(void) handleChallenge:(WLResponse *)response {
    NSLog(@"Inside handleChallenge - need to show form on the screen");
    LoginViewController* loginController = [self.vc.storyboard instantiateViewControllerWithIdentifier:@"LoginViewC
ontroller"];
    loginController.challengeHandler = self;
    [self.vc.navigationController pushViewController:loginController animated:YES];
}
@end
```

`onSuccess` and `onFailure` get triggers when the authentication ends.
You need to call `submitSuccess` to inform the framework that the authentication process is over, and allow the invocation's success handler to be called.

```
@implementation MyChallengeHandler
//...
-(void) onSuccess:(WLResponse *)response {
    NSLog(@"inside challenge success");
    [self.vc.navigationController popViewControllerAnimated:YES]
;
    [self submitSuccess:response];
}
-(void) onFailure:(WLFailResponse *)response {
    NSLog(@"inside challenge failure");
    [self submitFailure:response];
}
```

In your `LoginViewController`, when the user clicks to submit his credentials, you need to call `submitAdapterAuthentication` to send the credentials to the the `submitAuthentication` procedure you wrote previously.

```
@implementation LoginViewController
//***
- (IBAction)login:(id)sender {
    WLProcedureInvocationData *myInvocationData = [[WLProcedureInvocationData alloc
]
initWithAdapterName:@"NativeAdapterBasedAdapter"
procedureName:@"submitAuthentication"];
myInvocationData.parameters = @[self.username.text, self.password.text];
    [self.challengeHandler submitAdapterAuthentication:myInvocationData options:nil];
}
```

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/iOSNativeAdapterBasedAuthProject.zip) the Native project.