[TopCoder]

iOS Offline Mobile Signature Sync

Revision History

Author	Revision Number	Date
TCCODER	1.0	Feb 24, 2016

Contents

Deployment Instructions

1. Organization of Submission

/src   Source code
/docs   Documents

2. Environment Requirement

Mac OS X 10.11 or above
XCode 7.2

Runtime: iOS 8.0 or above device/simulator

3. Starting

4.1   Open the 'SFDCOfflinePoc.xcworkspace' file in 'src' folder,

4.2   Choose "SFDCOfflinePoc" scheme

4.3   Do a clean:
-            From XCode menu : Project -> Clean
-            From Simulator menu : iOS Simulator -> Reset Contents and Settings…

4.4   Now run.

4. Verification

Login into the app using member@topcoder.com / t0pc0d3r as credentials.

Video overview is located at the root folder of submission, named 'new overview.swf' - you can open it with your browser.

You can check that all signatures are successfully uploaded and in correct order by going to www.salesforce.com with your browser and login in with same credentials.

4.1 Issue #1
If I go offline and tap the "+" button on the sample request list view, the app crashes.

Fixed empty arrays being indexed directly in SampleRequestDetailViewController.m.

4.2 Issue #2

If I go offline and tap the sync button on any list view (contacts, products, or sample requests), the list view becomes empty (all items removed). Note that message "Sync complete!" is shown. I have to tap sync when back online to load the items again.

Fixed by disabling sync during offline

4.3 Issue #3

If I add a new sample request, then before sync'ing it I open it and sign, when I tap Confirm the app crashes:
*** Terminating app due to uncaught exception 'NSInvalidArgumentException', reason: '*** -[__NSPlaceholderDictionary initWithObjects:forKeys:count:]: attempt to insert nil object from objects[2]'
-- See screenshot for where the crash occurs: http://take.ms/mdGoC

This is obsolete (the issue was already fixed in current version)

4.4 Issue #4

Add a logout option in the top menu

Added the menu across all lists.

4.5 Issue #5

Open a sample request, tap Edit, and make a change like for Quantity. Tap Save and see the sample request has the sync icon in the list view. Now open the sample request again, sign, and confirm. Check on Salesforce that the PDF receipt has the change from the previous Edit, like new Quantity value. However, the Salesforce record itself and the local copy don't have the change from the previous Edit, so the receipt doesn't match the actual record either on Salesforce or locally. Also in the app the sample request doesn't have the sync icon in the list view anymore. The changes made in the previous Edit are lost.

Fixed creating a separate entity for each update.

4.6 Issue #6

The signatures should be uploaded in the order signed, at least for signatures added to a given sample request.
I signed a sample request 4 times while offline. When I came back online and did sync, the receipts were created on Salesforce in order 1, 4, 2, 3. When I tried again, I got a different order: 1, 2, 4, 3. The order of signatures on a sample request should be maintained, given the spec says a sample request can be signed multiple times, and the order could be used to determine the role of the signer.

Fixed by appending the signature date to the receipt name.

4.7 Issue #7

If I sign a sample request that's been deleted on Salesforce, when I confirm, I get error "Sync failed, try again later".
-- This is not clear and misleading (retrying won't help). Should tell me the sample request's been deleted. The attachment should also be deleted to avoid causing errors on further syncs:
2016-02-12 16:46:49:449 SFDCOfflinePoc[33252:3186717] ERROR|SFSmartSyncSyncManager|Sync type:syncUp id:45 FAILED cause:Server call for sync up failed error:Error Domain=CSFNetworkErrorDomain Code=400 "entity is deleted" UserInfo={action=<SFRestAPISalesforceAction: 0x1db75300, POST "/sobjects/Attachment" (0.00)>, NSLocalizedFailureReason=ENTITY_IS_DELETED, NSLocalizedDescription=entity is deleted, isAuthenticationFailure=false}

Added error propagation to the SmartSync logic and added required handling.
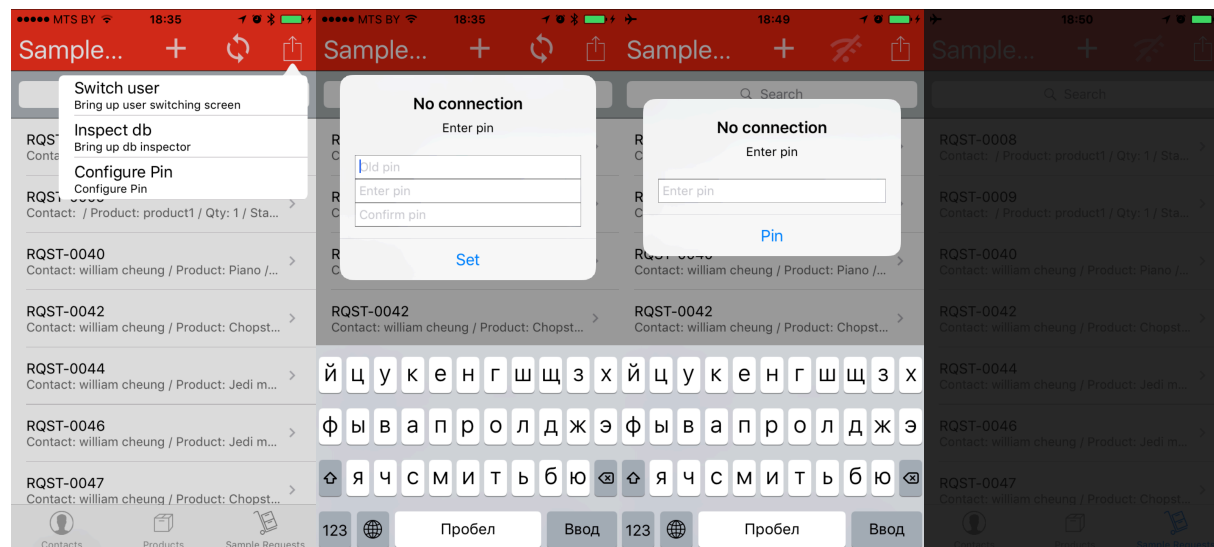
4.8 Issue #8

Secondary use case is the customer needs to sign the sample request at the time it is create (offline)

Now fully implemented: user can sign not-yet-synced requests both online & offline

4.9 Issue #9

The app should allow user to configure the pin via a menu option. However, as soon as the app goes offline, the user should be forced to enter it in order to continue using the app. If the user enters a wrong pin, they should be shown a message again to enter the correct pin.

Done as described in http://apps.topcoder.com/forums/?module=Thread&threadID=877390&start=0

Initially pin is empty.

4.10 Issue #10
If sign and tap Confirm while offline, popup with title "Error" is displayed. This scenario isn't an error, it's the typical use case, so title should be "Info".

Renamed the alert.

4.11 Issue #10

Current implementation - when user comes online from offline -> they are still required to do a manual refresh to sync the signatures upstream. This should be done automatically once the user is back online.

Updated logic. Displayed in the video overview

4.12 Issue #12

There should always be a visual indication that a sync is being performed.

Displayed in the video overview

5. Resource Contact List

Name	Resource Email
TCCODER	Through TopCoder Member Contact