

Oracle Banking Digital Experience

**Mobile Application Builder – iOS
Release 17.2.0.0.0**

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ORACLE®

Mobile Application Builder – iOS
July 2017

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1. Preface

1.1 Intended Audience

This document is intended for the following audience:

- Customers
- Partners

1.2 Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at <http://www.oracle.com/pls/topic/lookup?ctx=accandid=docacc>.

1.3 Access to Oracle Support

Oracle customers have access to electronic support through My Oracle Support. For information, visit

<http://www.oracle.com/pls/topic/lookup?ctx=accandid=info> or visit

<http://www.oracle.com/pls/topic/lookup?ctx=accandid=trs> if you are hearing impaired.

1.4 Structure

This manual is organized into the following categories:

Preface gives information on the intended audience. It also describes the overall structure of the User Manual.

The subsequent chapters describes following details:

- Configuration / Installation.

1.5 Related Information Sources

For more information on Oracle Banking Digital Experience Release 17.2.0.0.0, refer to the following documents:

- Oracle Banking Digital Experience Licensing Guide

2. Install node Js

Install node js from <https://nodejs.org>.

3. Create project

Run Following commands on **terminal**

1. Install cordova using the command

sudo npm install -g cordova

2. Create project using following command

cordova create <directory name> <package name> <project name>

Eg : cordova create zigbank com.ofss.zigbank ZigBank

3. All subsequent commands need to be run within the project's directory

cd <directory name>

Eg: cd zigbank

4. Add platform ios to the project using following command

cordova platform add ios

```

nopt@3.0.1
abbrev@1.1.0
update-notifier@0.5.0
configstore@1.4.0
latest-version@1.0.1
package-json@1.2.0
registry-url@3.1.0
rc@1.2.1
  deep-extend@0.4.2
  minimist@1.2.0
  strip-json-comments@2.0.1

dhcp-in-ofss-10-180-57-183:17.2_Documentation shubham$ cordova create zigbank com.ofss.zigbank ZigBank
Creating a new cordova project.
dhcp-in-ofss-10-180-57-183:17.2_Documentation shubham$ cd zigbank/
dhcp-in-ofss-10-180-57-183:zigbank shubham$ cordova platform add ios
Using cordova-fetch for cordova-ios@~4.4.0
Adding ios project...
Creating Cordova project for the iOS platform:
  Path: platforms/ios
  Package: com.ofss.zigbank
  Name: ZigBank
iOS project created with cordova-ios@4.4.0
Discovered plugin "cordova-plugin-whitelist" in config.xml. Adding it to the project
Installing "cordova-plugin-whitelist" for ios
Adding cordova-plugin-whitelist to package.json
Saved plugin info for "cordova-plugin-whitelist" to config.xml
--save flag or autosave detected
Saving ios@~4.4.0 into config.xml file ...
dhcp-in-ofss-10-180-57-183:zigbank shubham$

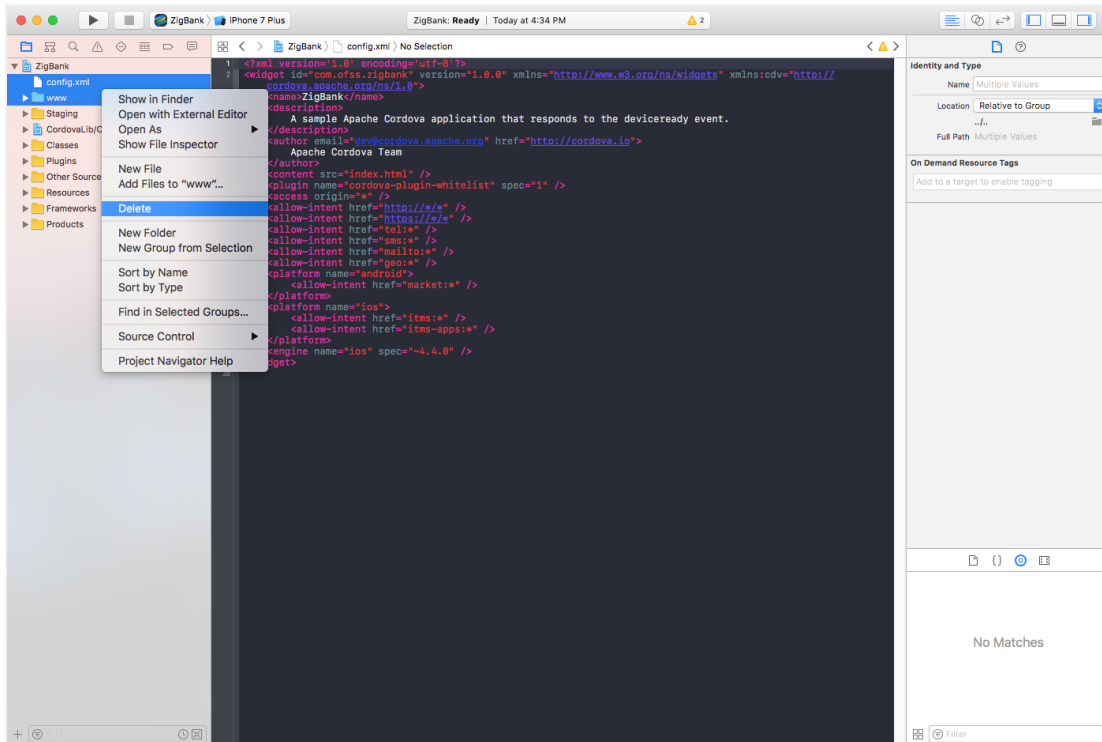
```

5. Extract OBDX_Installer.zip and perform the following steps on the extracted folder

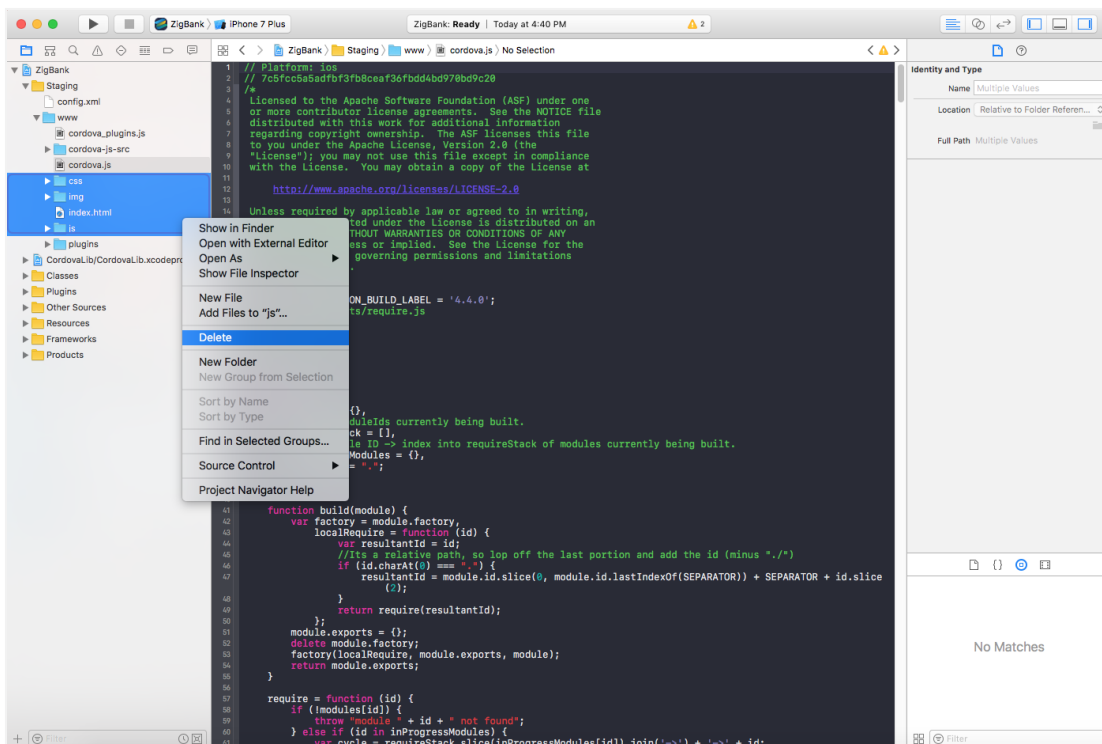
- a. Copy and Replace **OBDX_Installer/installables/mobile/service/ios/Images.xcassets** directory from extracted zip into **zigbank/platforms/ios/ZigBank**
- b. Copy **cordova_plugins.js** from **OBDX_Installer/installables/mobile/service/ios/www** directory and replace it in **zigbank/platforms/ios/www/**
- c. Copy **plugins** directory from **OBDX_Installer/installables/mobile/service/ios/www** directory and paste it in **zigbank/platforms/ios/www/**
- d. Copy and Replace **config.xml** from **OBDX_Installer/installables/mobile/service/ios** into **zigbank/platforms/ios/ZigBank**

6. Open project in xcode by double clicking **zigbank/platforms/ios/ZigBank.xcodeproj**

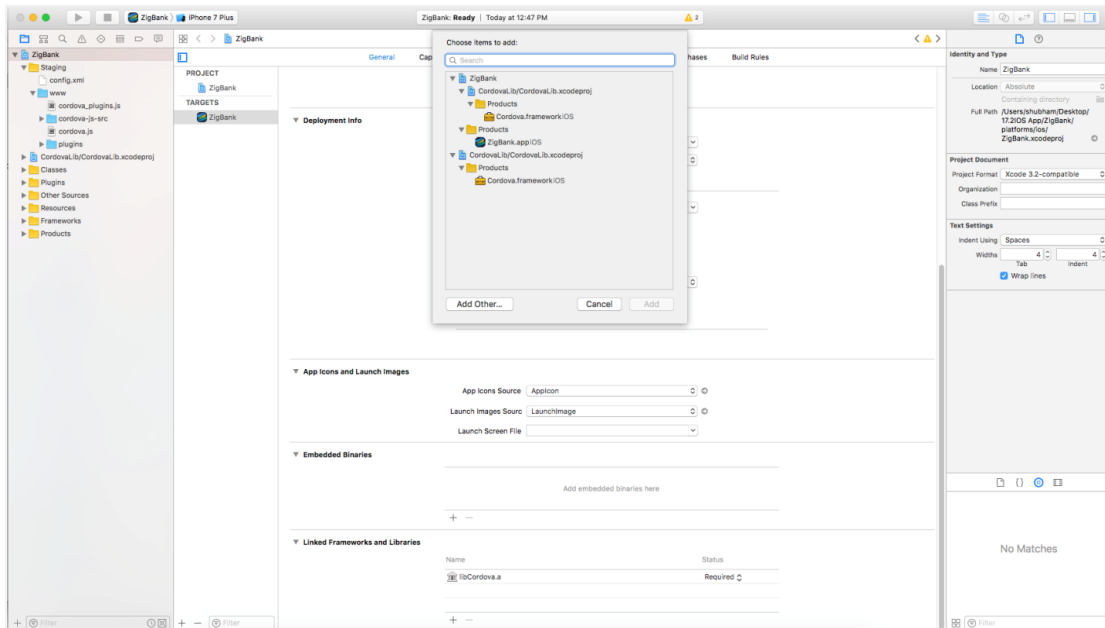
7. Delete **config.xml** and **www** outside the staging area as shown below **Delete -> Move to Trash**

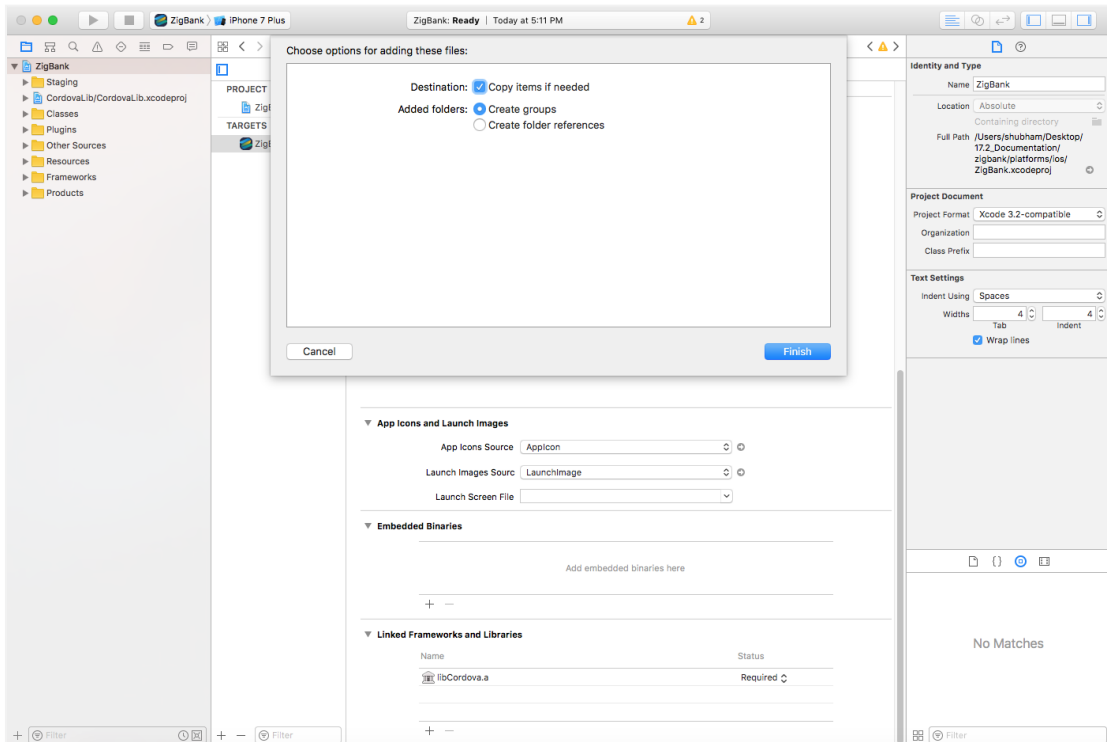
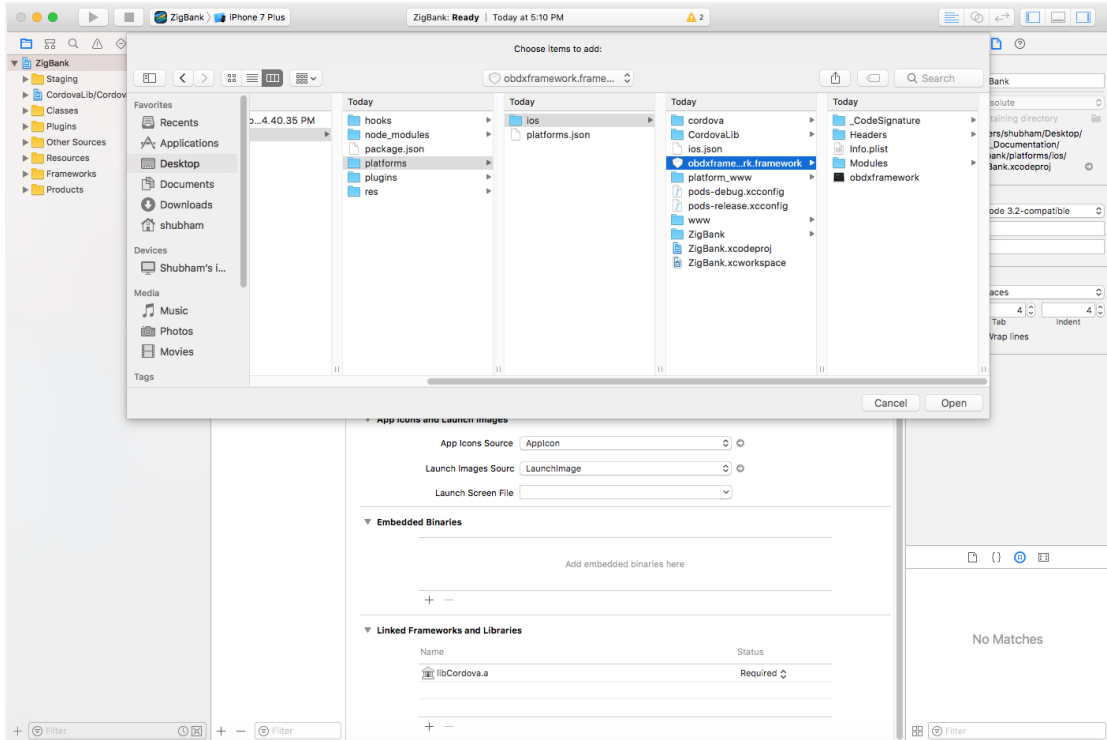


8. Delete & Move to trash **css, img, js, index.html** from staging -> **www**

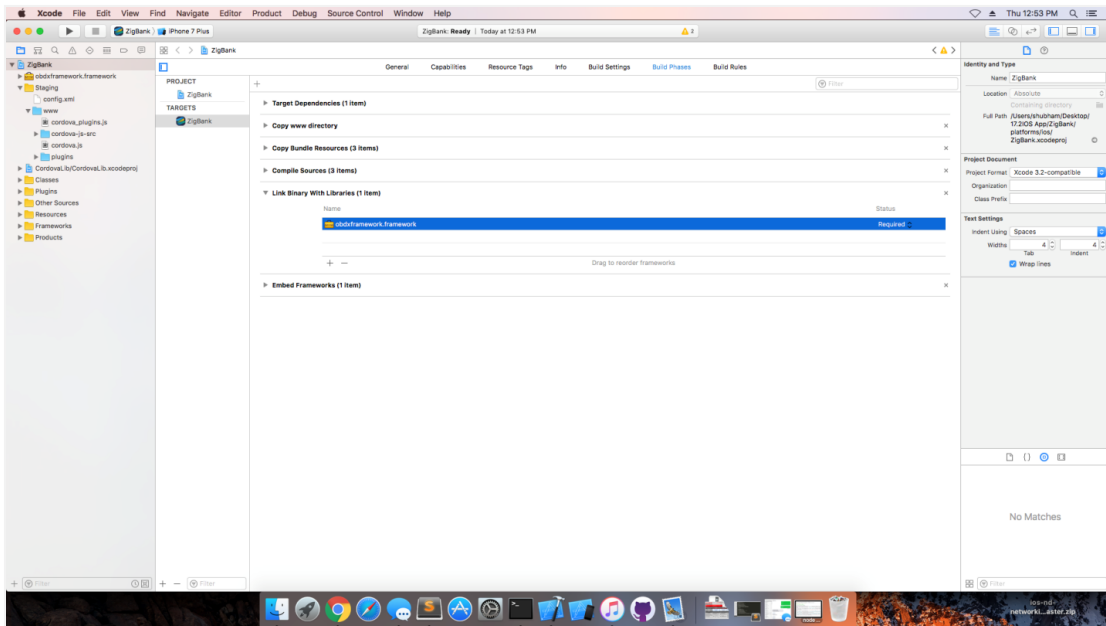
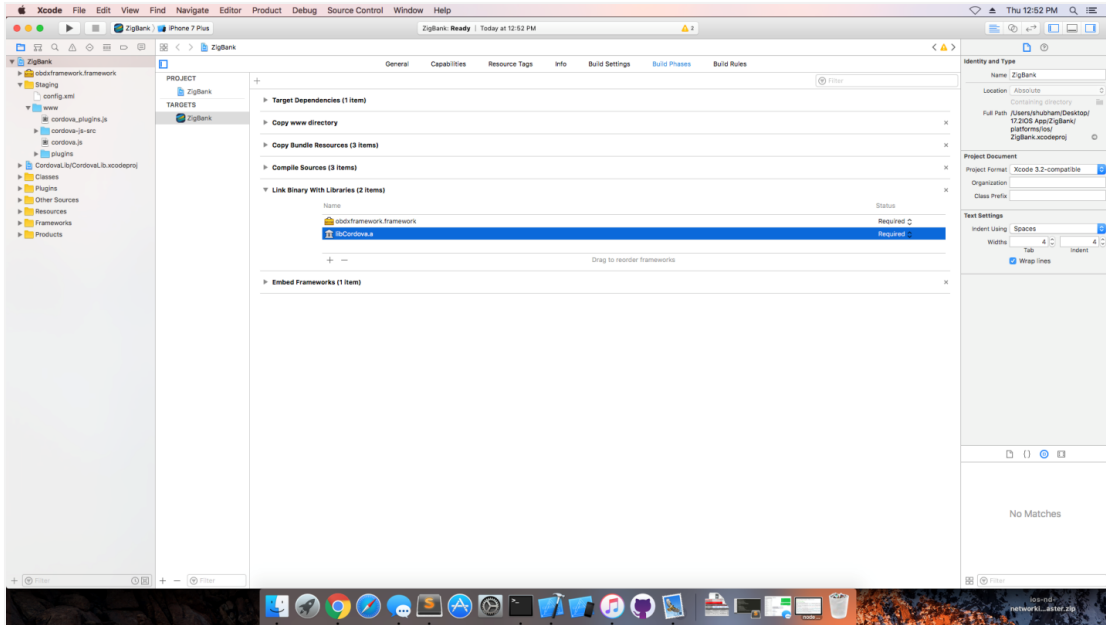


9. Using Finder, copy **obdxframework.framework** from **OBDX_Installer/installables/mobile/service/ios/iphonedevice** (if you are testing on device - Recommended) else if you are testing it on simulator use **OBDX_Installer/installables/mobile/service/ios/iphonesimulator** and paste it into **zigbank/platforms/ios**
10. Go back to xcode, Click on project (ZigBank in Navigator Pane) -> then in the right pane -> select General -> Scroll to Embedded Binaries -> click + -> click on button **add other** -> navigate to **zigbank/platforms/ios** and select **obdxframework.framework** -> click on **open button** -> check **Copy items if needed and select create groups(default)** -> finish





11. Go to **Build Phases** under project -> **Link Binary with libraries** -> select **libcordova.a** -> click -



12. In xcode, press **cmd+shift+o**, type **MainViewController.m**, press enter, Add following code to **viewWillAppear** method in **MainViewController.m** file :

Replace -> **[super viewWillAppear:animated];** with following

```

CGRect screenBounds = [[UIScreen mainScreen] bounds];
screenBounds.origin.y = screenBounds.origin.y + 20;
screenBounds = CGRectMake(screenBounds.origin.x, screenBounds.origin.y,
screenBounds.size.width, screenBounds.size.height-20);
[self.webView setFrame:screenBounds];
self.webView.layer.backgroundColor = (__bridge CGColorRef
_Nullable)([UIColor clearColor]);
[super viewWillAppear:animated];

```

```

}
return self;
}

- (void)didReceiveMemoryWarning
{
    // Releases the view if it doesn't have a superview.
    [super didReceiveMemoryWarning];

    // Release any cached data, images, etc that aren't in use.

#pragma mark View lifecycle

- (void)viewWillAppear:(BOOL)animated
{
    // View defaults to full size. If you want to customize the view's size, or its subviews (e.g. webView),
    // you can do so here.
    CGRect screenBounds = [[UIScreen mainScreen] bounds];
    screenBounds.origin.y = screenBounds.origin.y + 20;
    screenBounds = CGRectMake(screenBounds.origin.x, screenBounds.origin.y, screenBounds.size.width, screenBounds.size.height-20);
    [self.webView setFrame:screenBounds];
    self.webView.layer.backgroundColor = (__bridge CGColorRef_Nullable)([UIColor clearColor]);
    [super viewWillAppear:animated];
}

- (void)viewDidLoad
{
    [super viewDidLoad];
    // Do any additional setup after loading the view from its nib.
}

- (void)viewDidUnload
{
    [super viewDidUnload];
    // Release any retained subviews of the main view.
    // e.g. self.myOutlet = nil;
}

/* Comment out the block below to over-ride */
/*
- (UIWebView*) newCordovaWebViewWithFrame:(CGRect)bounds
*/

```

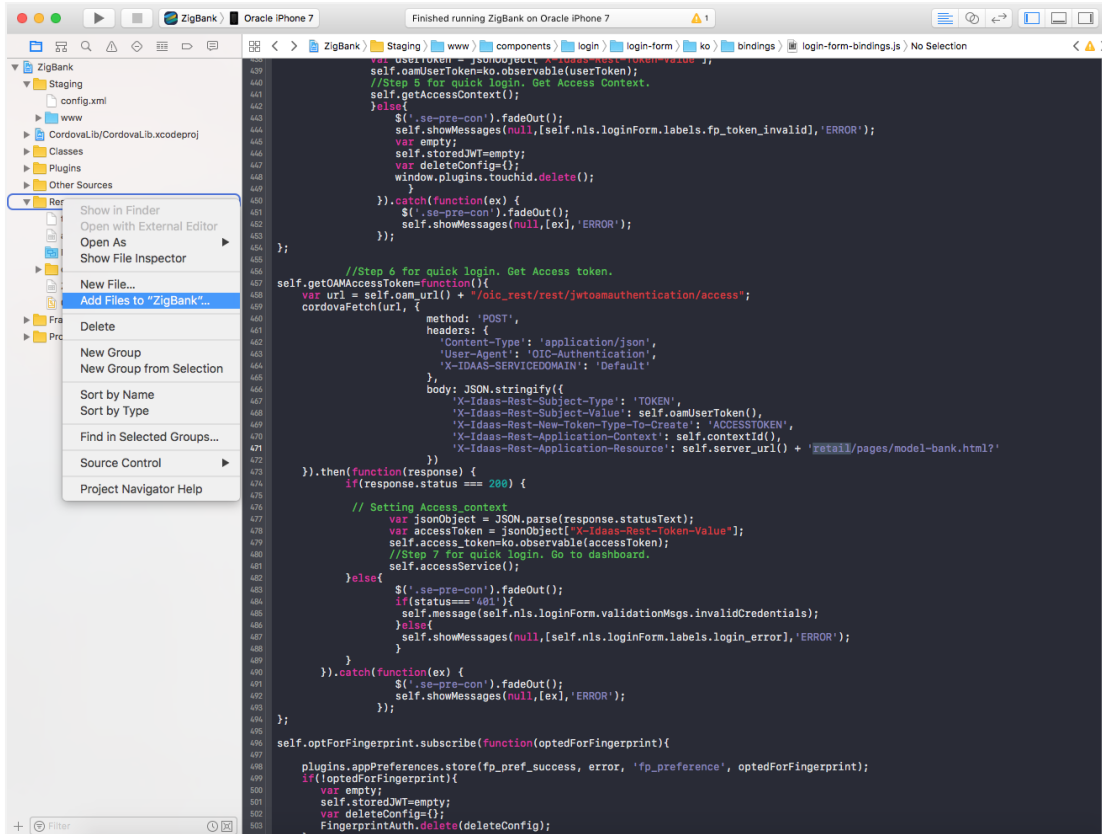
```

2017-07-19 14:15:38.076566 ZigBank[428:86746] Apache Cordova native platform version 4.3.1 is starting.
2017-07-19 14:15:38.076404 ZigBank[428:86746] Multi-tasking -> Device: YES, App: YES
2017-07-19 14:15:38.126369 ZigBank[428:86746] Using UIWebView
2017-07-19 14:15:38.178438 ZigBank[428:86746] [CDVTimer][handlogamuzi] 0.144806ms
2017-07-19 14:15:38.282226 ZigBank[428:86746] [CDVTimer][linkendiveigamifilez] 0.347993ms
2017-07-19 14:15:38.382411 ZigBank[428:86746] [CDVTimer][gesturehandler] 0.177826ms
2017-07-19 14:15:38.286863 ZigBank[428:86746] [CDVTimer][file] 24.224842ms
2017-07-19 14:15:38.286983 ZigBank[428:86746] [CDVTimer][TotalPluginStartup] 28.546989ms
2017-07-19 14:16:01.456888 ZigBank[428:86746] Resetting plugins due to page load.
2017-07-19 14:16:01.728466 ZigBank[428:86746] Finished load of: file:///var/container/Bundle/Application/CB53CEB-E7B0-4E67-AF4B-7176DFD8EB05/ZigBank.app/www/index.html?module=login&context=index
2017-07-19 14:16:08.748291 ZigBank[428:86746] [default] <private>
2017-07-19 14:16:08.748408 ZigBank[428:86746] [WebAD Warning] [TouchID] took '73.167949' ms. Plugin should use a background thread.

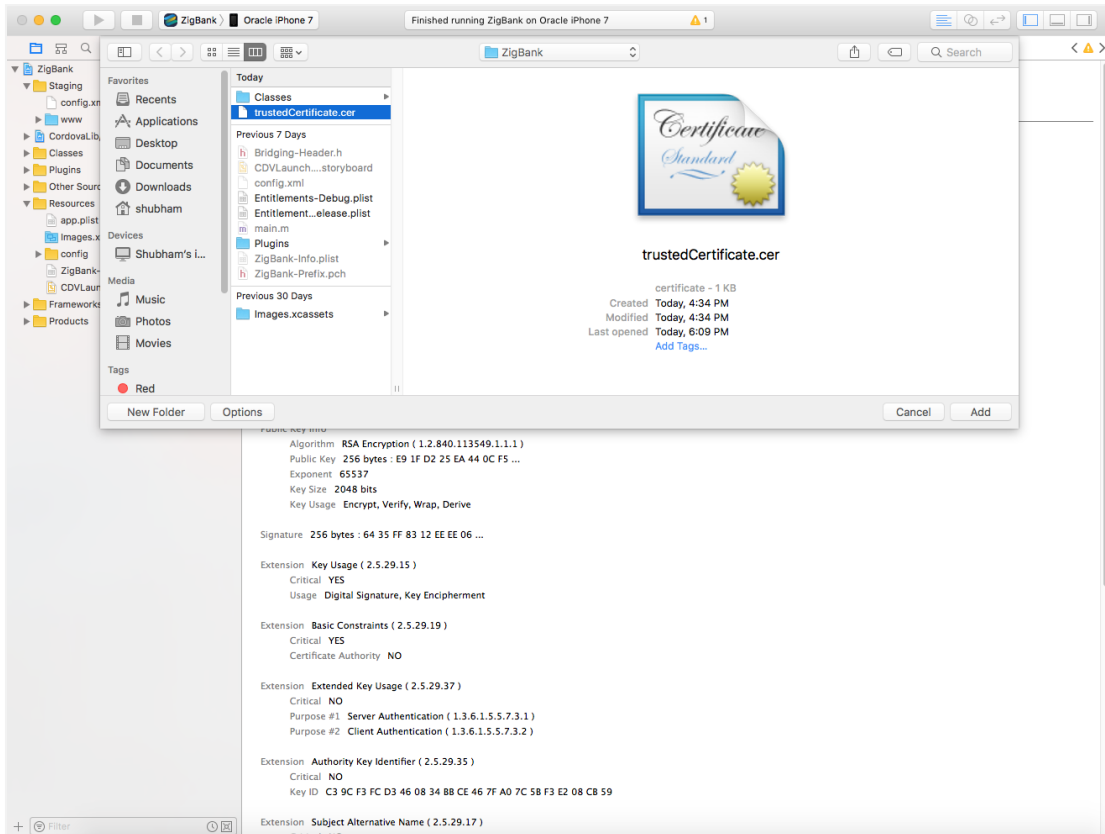
```

13. For https urls, get the https certificate of server, rename the certificate as **trusted Certificate.cer** and proceed as shown in the next step, else skip next step (in case of http server url)

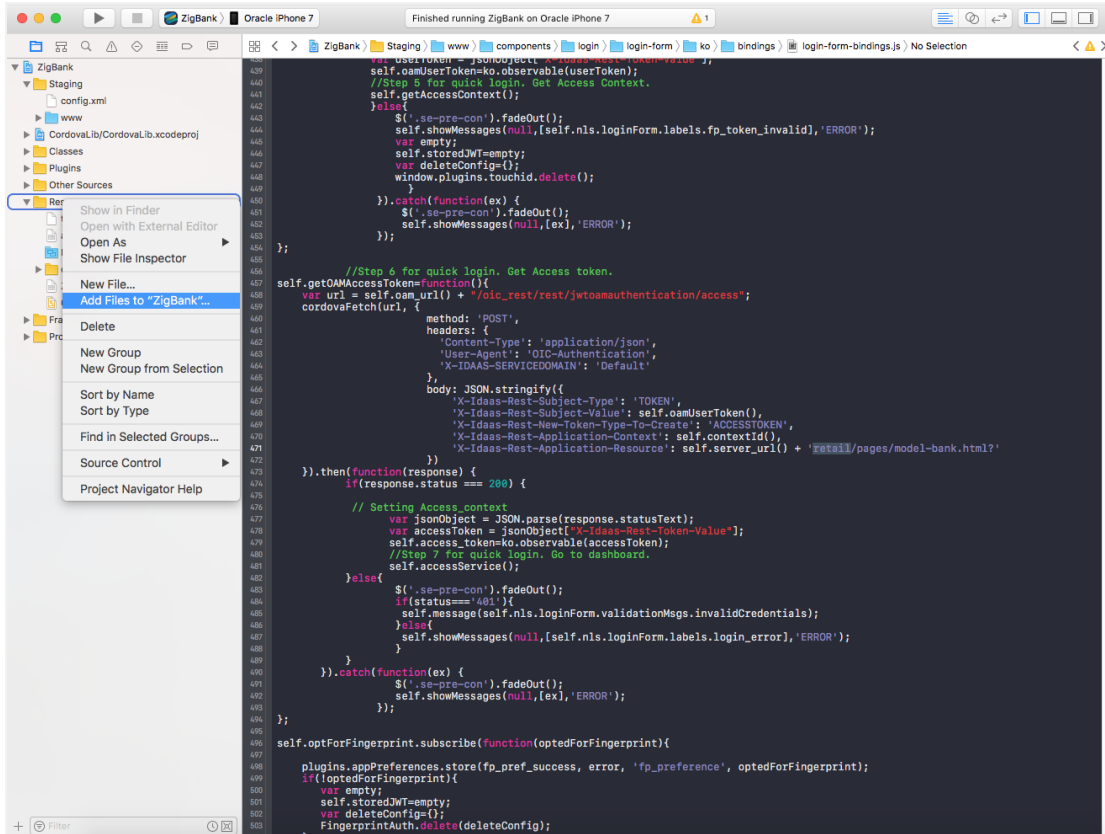
14. Copy **trustedCertificate.cer** and paste it into **zigbank\platforms\ios\ZigBank** directory. Right click on **Resources -> Add Files to ZigBank**



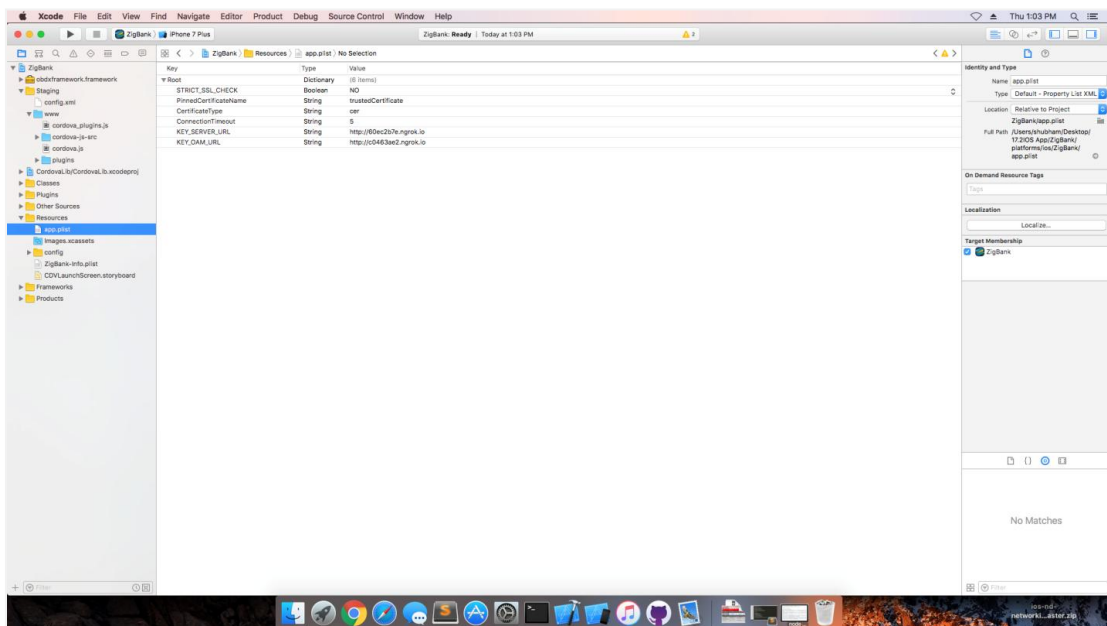
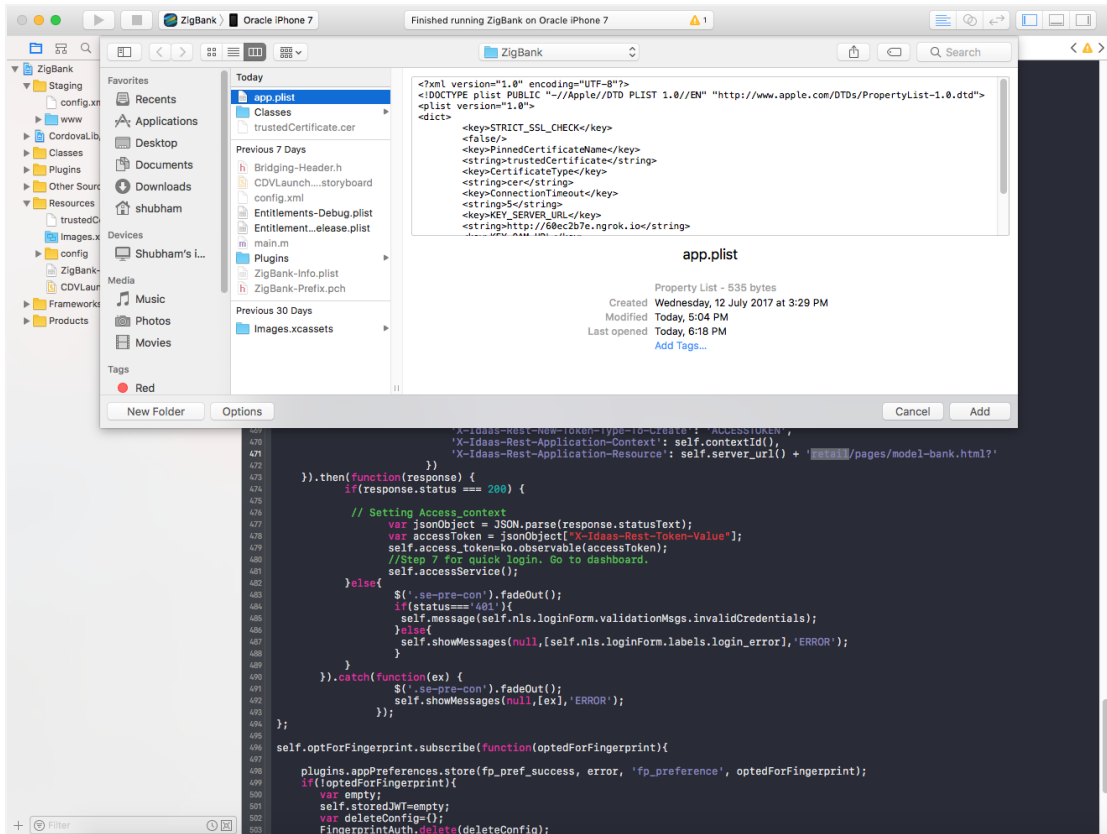
15. In the Popup, select **trustedCertificate.cer** and click **Add**



16. Using finder, Copy **app.plist** from **OBDX_Installer/installables/mobile/service/ios** and paste it into **zigbank\platforms\ios\ZigBank** directory. Go back to xcode, in navigation pane, Right click on **Resources** -> **Add Files to ZigBank**



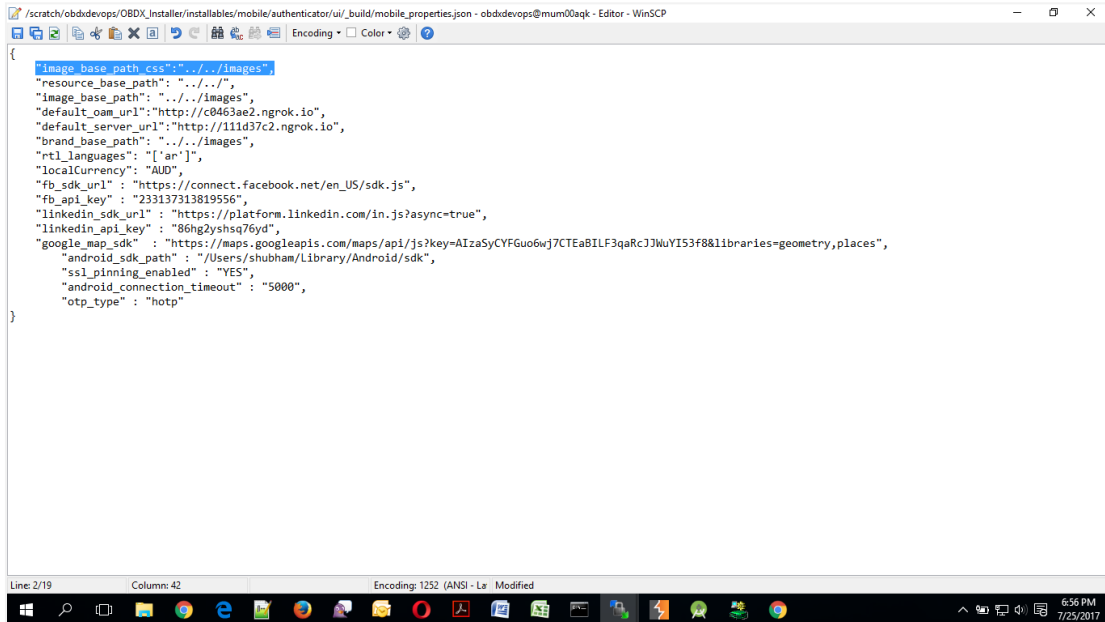
17. In the Popup, select navigate to **zigbank\platformslios\ZigBank** directory and select **app.plist** and click **Add**.



18. Build the UI from **OBDX_Installer/installables/ui/channel/_build** folder by running following commands on command line/terminal

- a. Add **"image_base_path_css": "../images"**, to **OBDX_Installer/installables/ui/channel/_build/mobile_properties.json**

Note: Please notice the comma at the end.



```

{
  "image_base_path_css": "../images",
  "resource_base_path": "../",
  "image_base_path": "../images",
  "default_oam_url": "http://c0463ae2.ngrok.io",
  "default_server_url": "http://111d37c2.ngrok.io",
  "brand_base_path": "../images",
  "rtl_languages": ["ar"],
  "localCurrency": "AUD",
  "fb_sdk_url": "https://connect.facebook.net/en_US/sdk.js",
  "fb_api_key": "233137313819556",
  "linkedin_sdk_url": "https://platform.linkedin.com/in.js?async=true",
  "linkedin_api_key": "86hg2yshsq76yd",
  "google_map_sdk": "https://maps.googleapis.com/maps/api/js?key=AIzaSyCYFGuo6wj7CTEaB1LF3qaRcJ3WuYI53F8&libraries=geometry,places",
  "android_sdk_path": "/Users/shubham/Library/Android/sdk",
  "ssl_pinning_enabled": "YES",
  "android_connection_timeout": "5000",
  "otp_type": "hotp"
}

```

- b. For OAM based Authentication

```

sudo npm install -g grunt-cli
sudo npm install
node render-requirejs/render-requirejs.js
grunt iosbuild

```

- c. For Non-OAM based Authentication

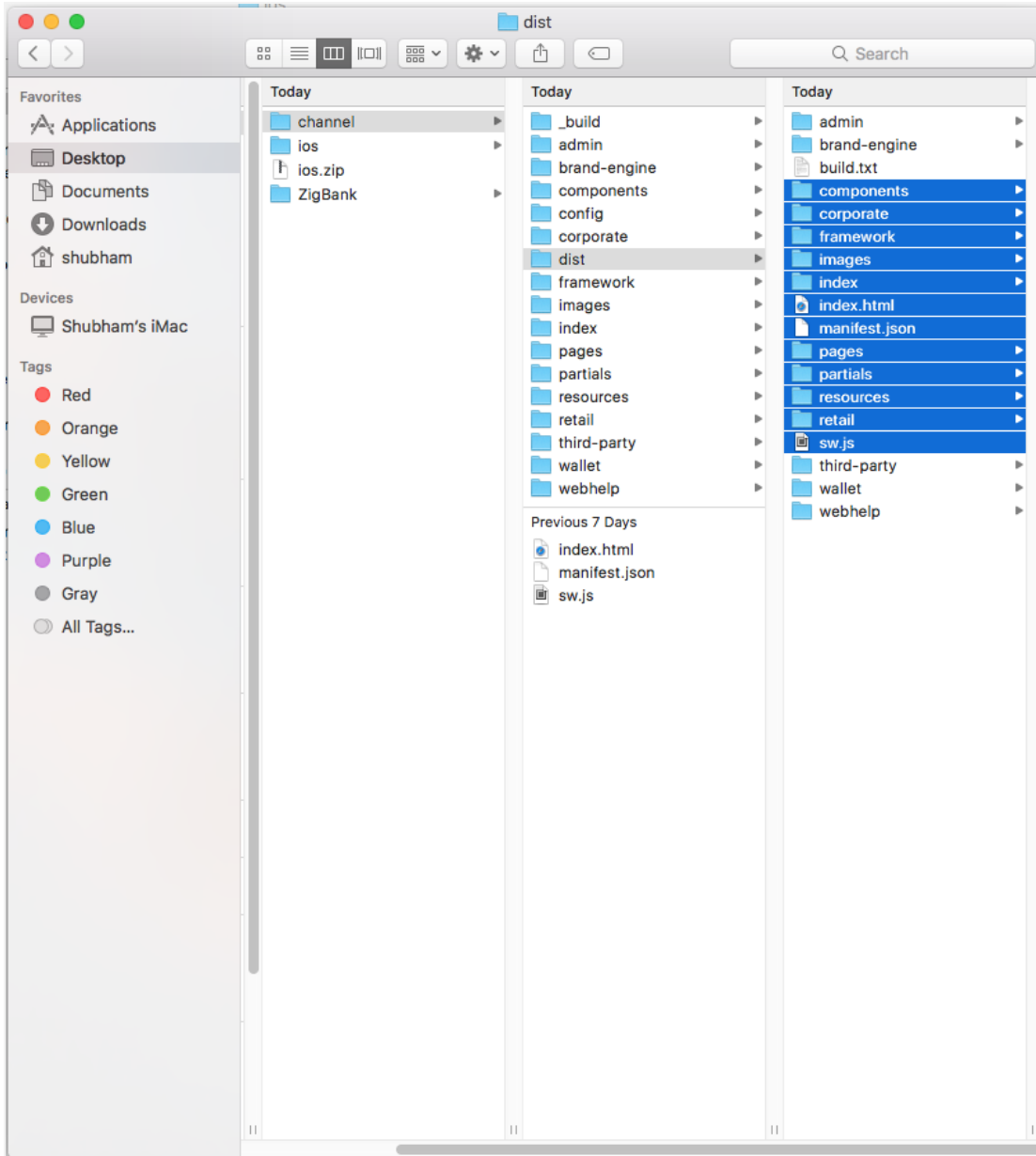
```

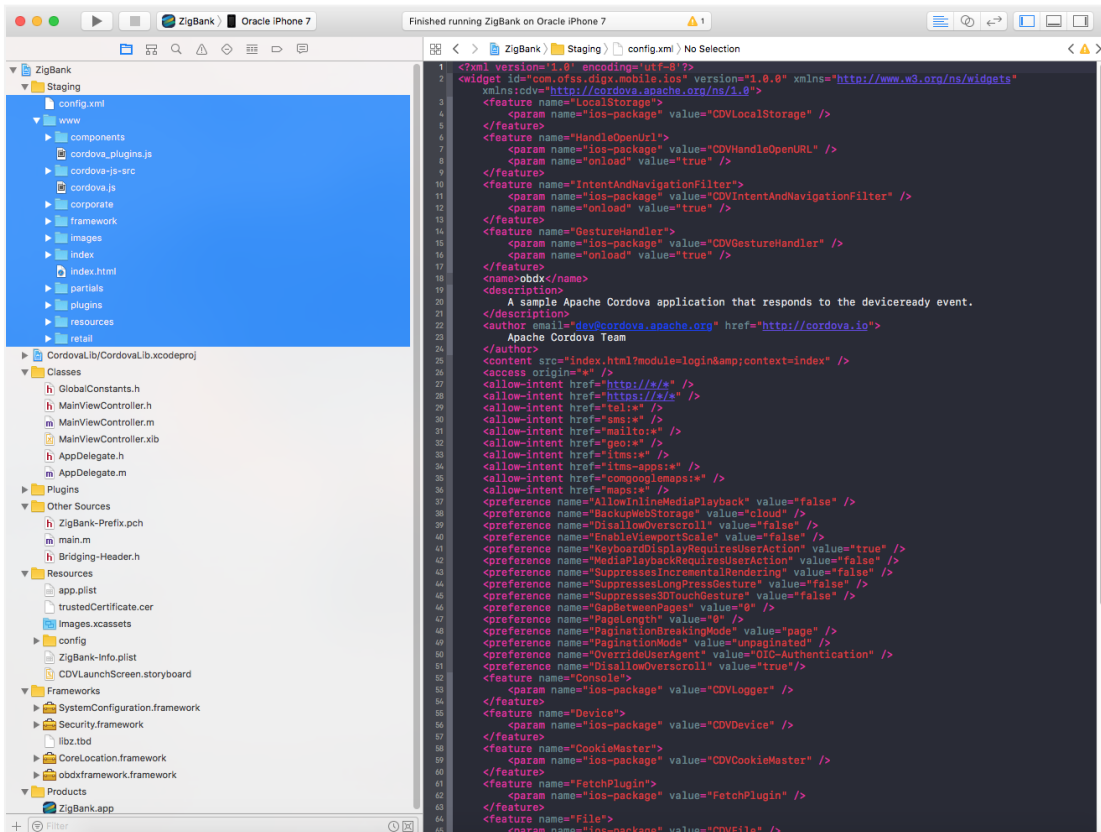
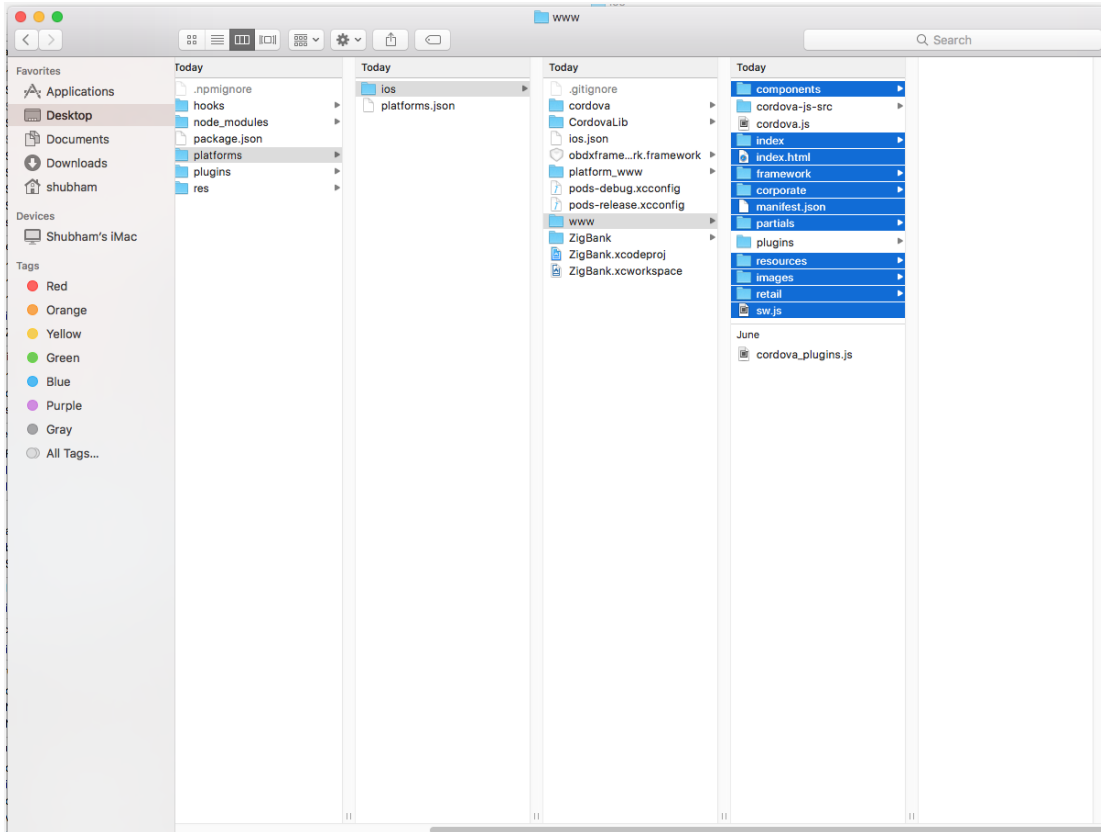
sudo npm install -g grunt-cli
sudo npm install
node render-requirejs/render-requirejs.js
grunt iosbuild-nonoam

```

19. Using finder, Copy the ui generated in **OBDX_Installer/installables/ui/channel/dist { components, corporate, framework, images, index, partials, resources, retail, index.html, manifest.json, sw.js }** folder to **zigbank/platforms/ios/www**

Files should look like this in **xcode**



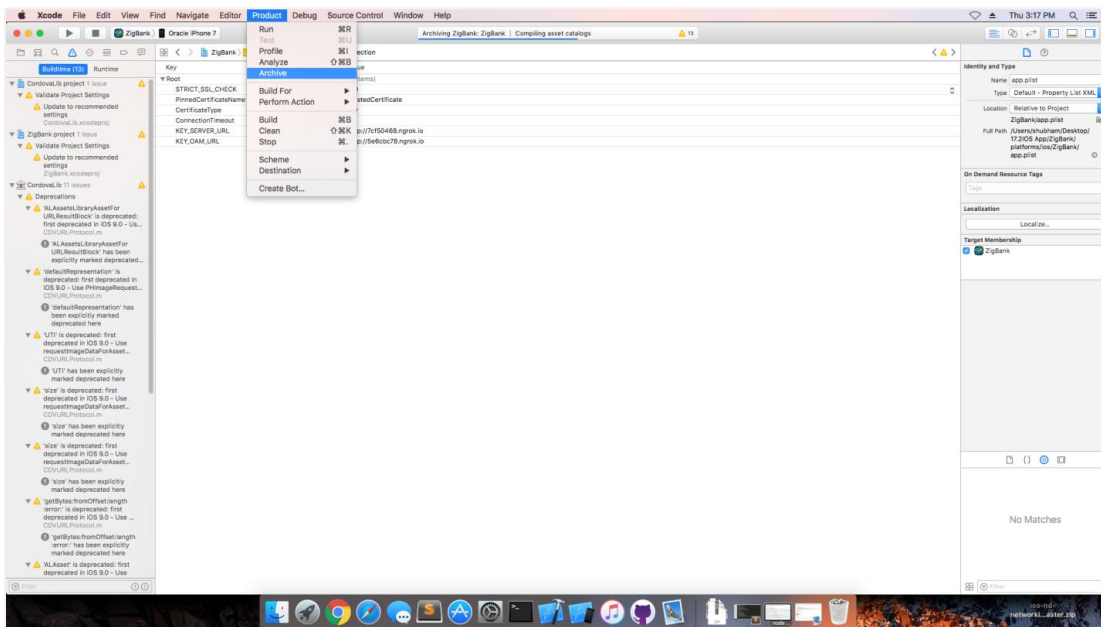


20. The above app points to our servers, so one has to change urls in Resources/app.plist in xcode. As well as replace trustedCertificate.cer with your server certificate for https URLs.

21. Select your device and build the app.

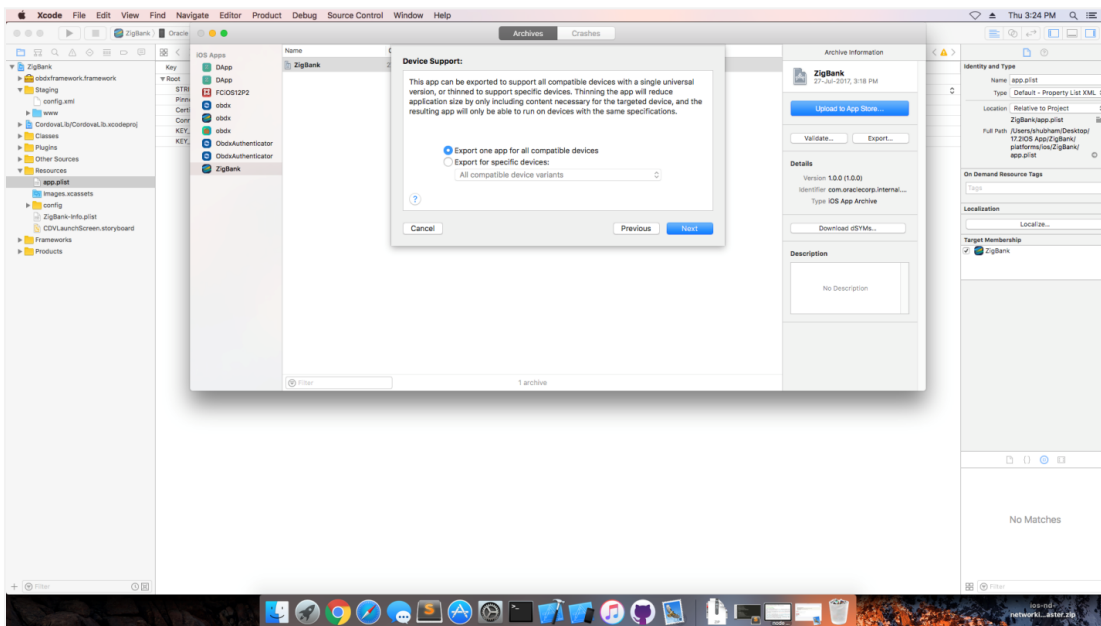
4. Archive and Export :

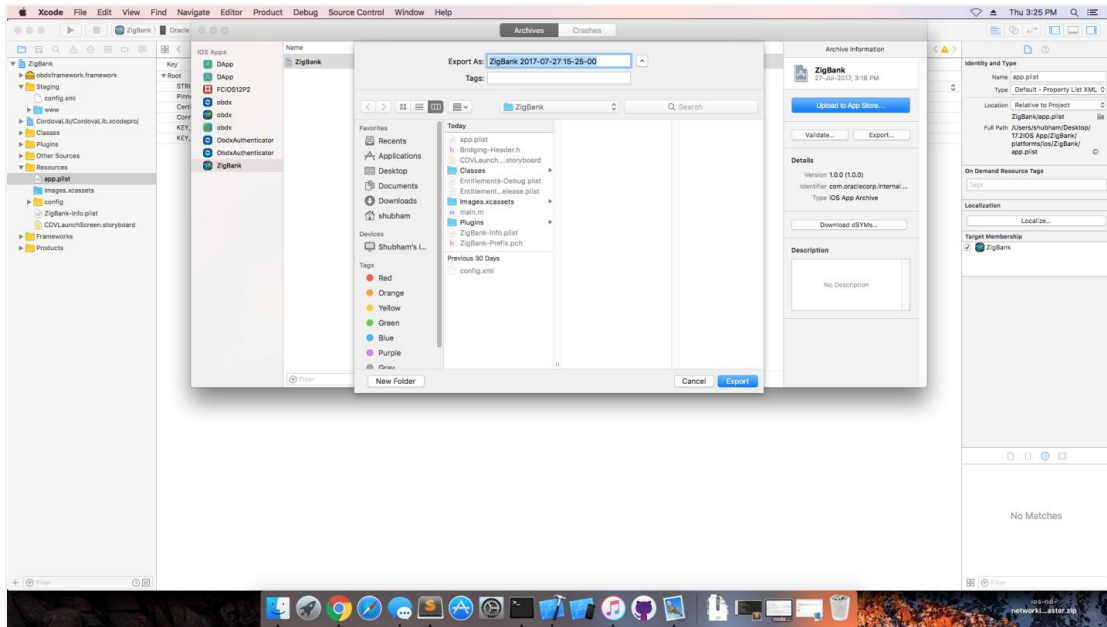
- a. In the Menu bar click on **Product -> Archive**



- b. After archiving has successfully completed. Following popup will appear

- c. Click on Export in the right pane of the popup -> select **Export Method -> Choose Provisioning Profile -> select Export one app for all Compatible Devices -> Next -> Next** and generate the ipa.

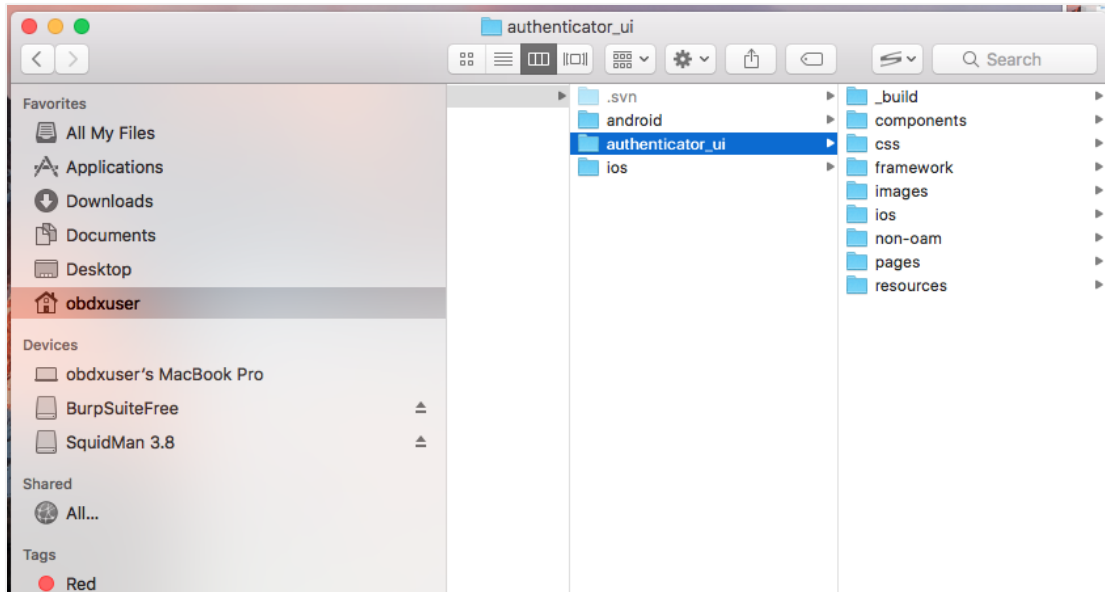




5. OBDX Authenticator Application

5.1 Building Authenticator UI

1. Extract OBDX_Installer.zip. It contains **OBDX_Installer/installables/mobile/authenticator/ui** folder. The folder structure is as shown :



2. Open the **OBDX_Installer/installables/mobile/authenticator/ui /ios** folder, copy the contents and paste and replace @path:
OBDX_Installer/installables/mobile/authenticator/ui /components/modules
3. Build UI based on selected Authentication mechanism.

(a) OAM based Authentication

1. Open Terminal at “_build” level.
2. Run following command :

```
sudo npm install -g grunt-cli
sudo npm install
node render-requirejs/render-requirejs.js
grunt authenticator --verbose
```

3. After running above commands and getting result as “Done, without errors.” a new folder will be created at “_build” level with name as “dist”.

(b) NON-OAM Based Authentication

1. Copy “*non-oam/ios/login*” folder and paste it at location “*components/modules*” location. This will replace existing “*login*” folder.
2. Open Terminal at “*_build*” level.
3. Run following command :

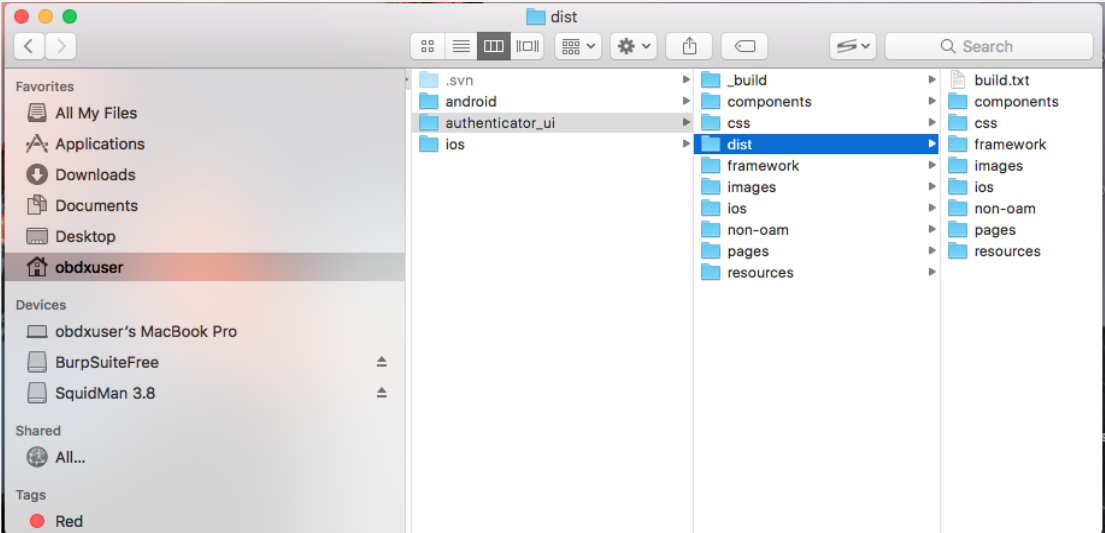
```
Sudo npm install -g grunt-cli
npm install
node render-requirejs/render-requirejs.js
grunt authenticator --verbose
```

4. After running above commands and getting result as “*Done, without errors.*” a new folder will be created at “*_build*” folder level with name as “*dist*”.

```
Running "add-cordova" task
Reading ../dist/framework/js/pages/require-config.js...OK
Writing ../dist/framework/js/pages/require-config.js...OK
Done, without errors.

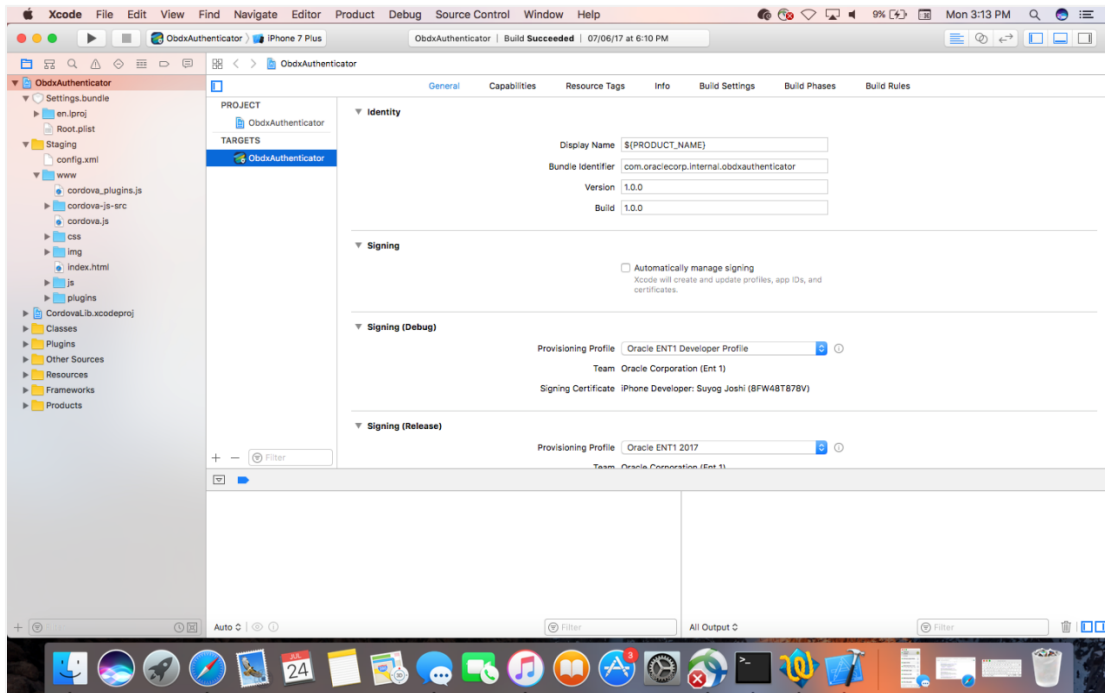
Execution Time (2017-07-24 15:04:08 UTC+5:30)
loading tasks          10.2s ██████████ 49%
clean:preBuildCleanUp  11ms  0%
copy:main              6.4s  ██████████ 31%
sass:dist             12ms  0%
htmlmin:min           98ms  0%
inlinecss:main        3ms  0%
uglify:updatedBuild   1.7s  ██████ 8%
string-repla...eplacements 25ms  0%
require               1ms  0%
requirejs:compile     2.2s  ██████ 11%
clean:postBuildCleanUp 151ms 1%
authenticator-tasks   7ms  0%
add-cordova           7ms  0%
Total 20.9s

dhcp-in-ofss-10-180-59-57:_build obdxuser$
```



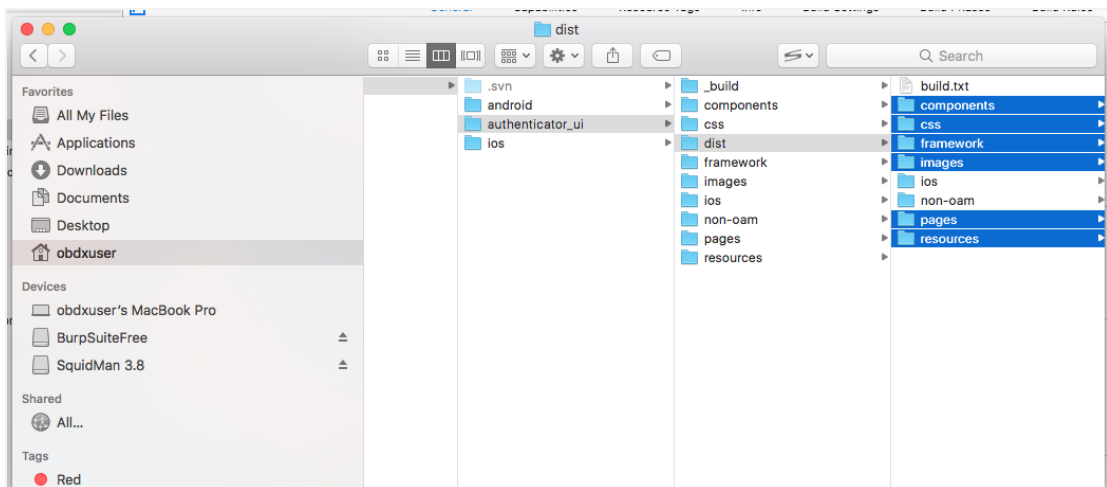
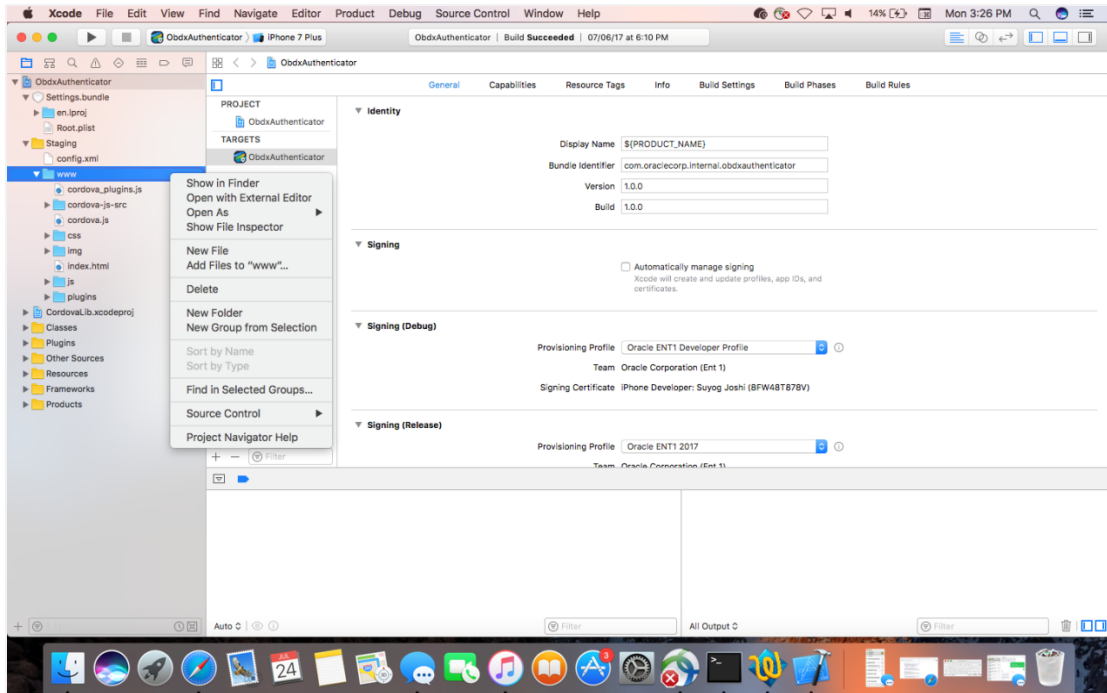
5.2 Authenticator Application Workspace Setup

1. Extract OBDX_Installer.zip. Go to “ios/Obdxauthenticator” folder at the same level as that of “ui”.
2. Double click on “ObdxAuthenticator.xcodeproj” to open the project in Xcode.

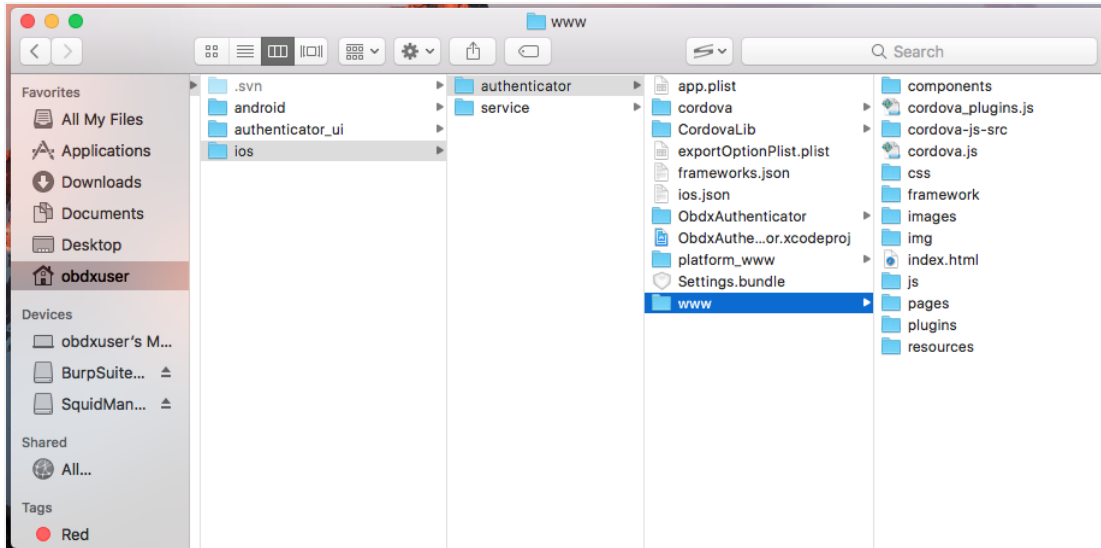


3. Open the “www” folder in the finder and paste here the following generated UI files from “ui/dist” folder :

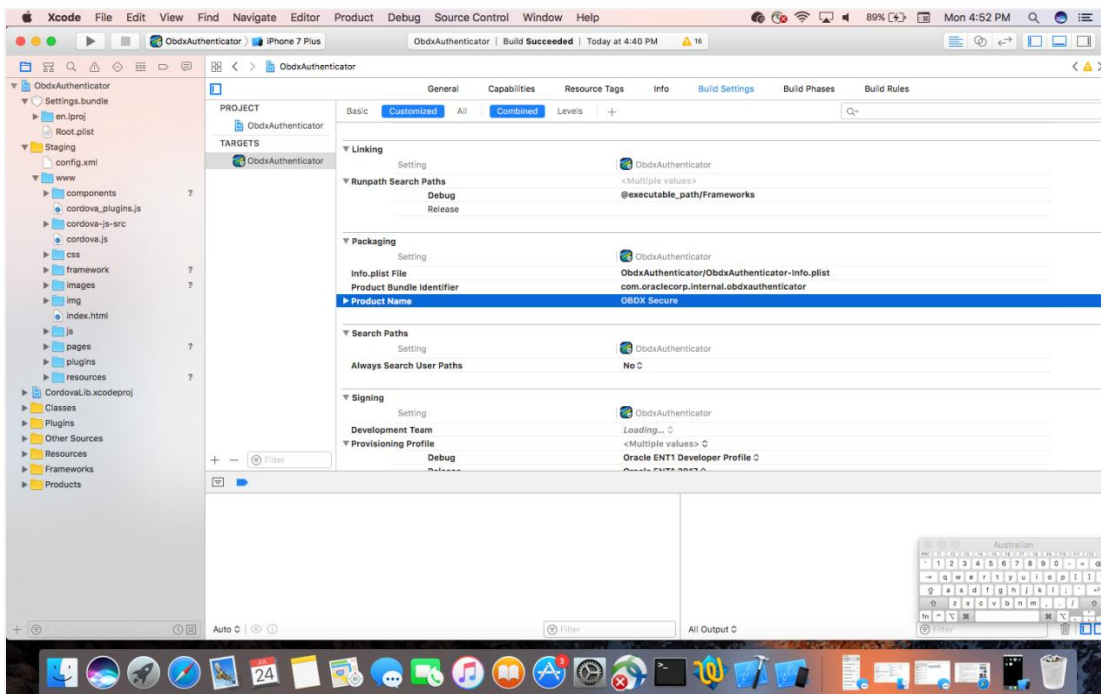
- components
- css
- framework
- images
- pages
- resources



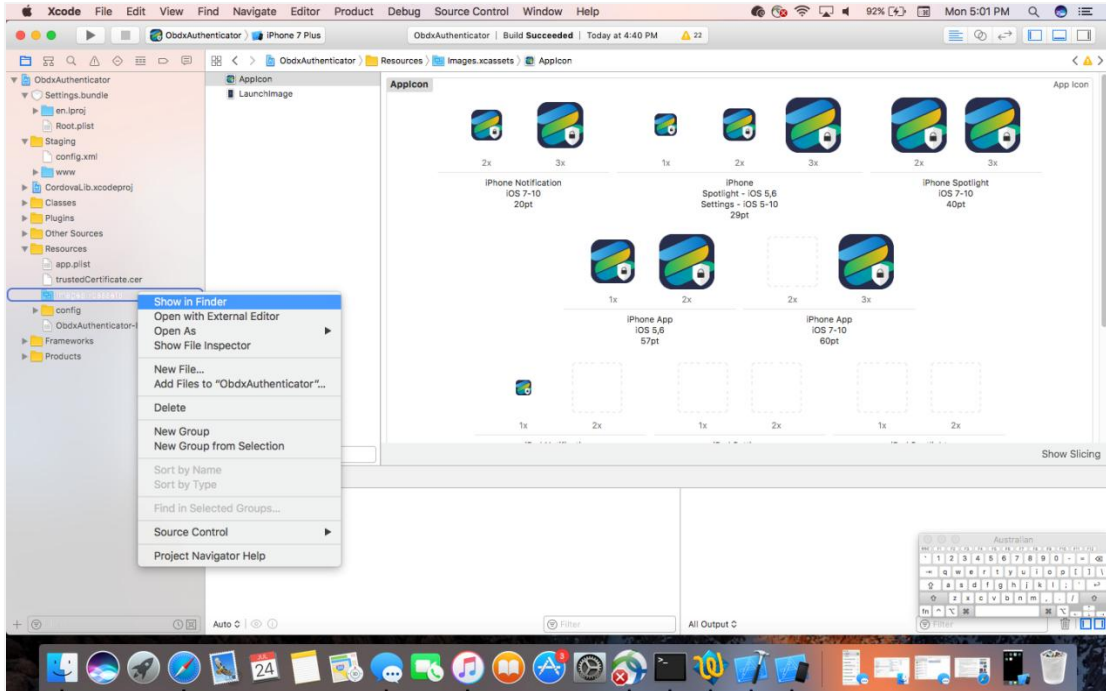
Finally the www folder must look like:



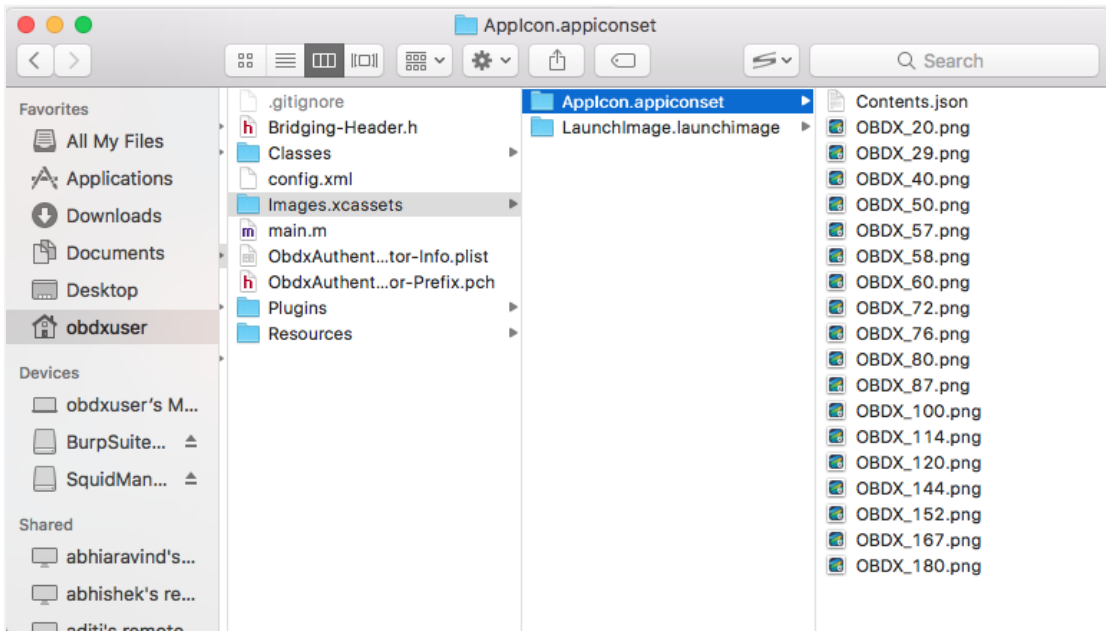
4. Now, again go to the Xcode and run the project either in Simulator or device.
5. To change the OAM/Server url, go to the *Classes -> Util -> Constants -> GlobalConstants.h*
6. To update Application name, Click on the project in Xcode, then under *Targets -> Build Settings -> Packaging -> Product Name* and update the Application Name to the desired one. To change the package name, Change the Bundle Identifier.



7. To update Application icon/ Launch Image go to *Resources -> Image.xcassets and show in Finder.*

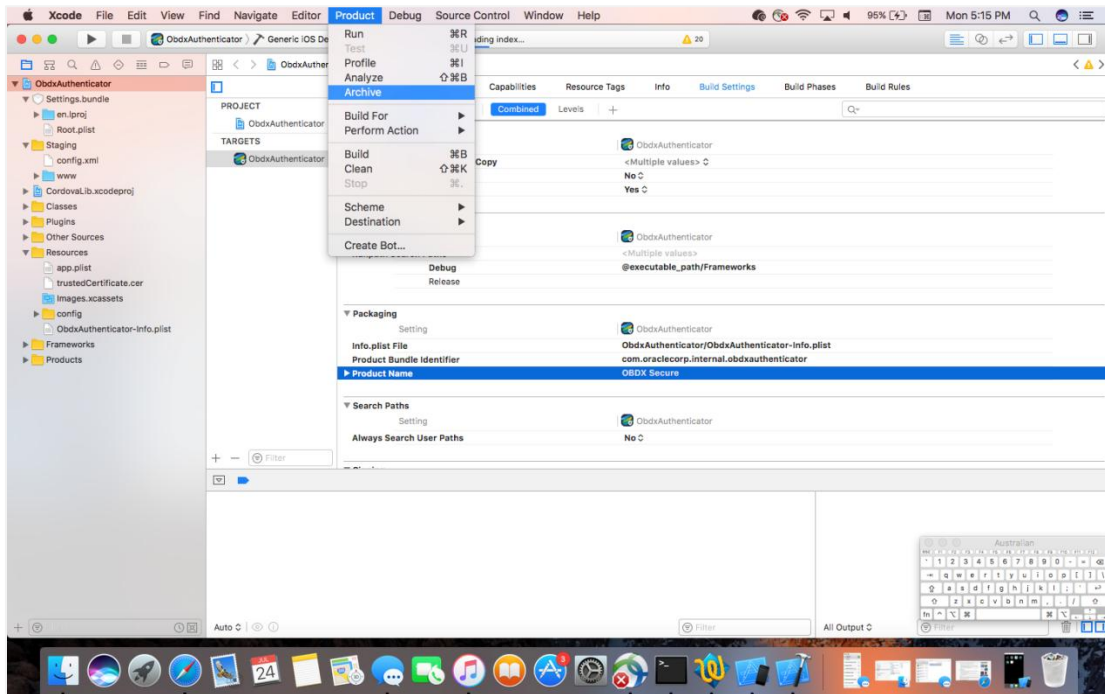


8. Replace the images with icons/launch Images of the choice of each dimension of the icon/launch Image already present.

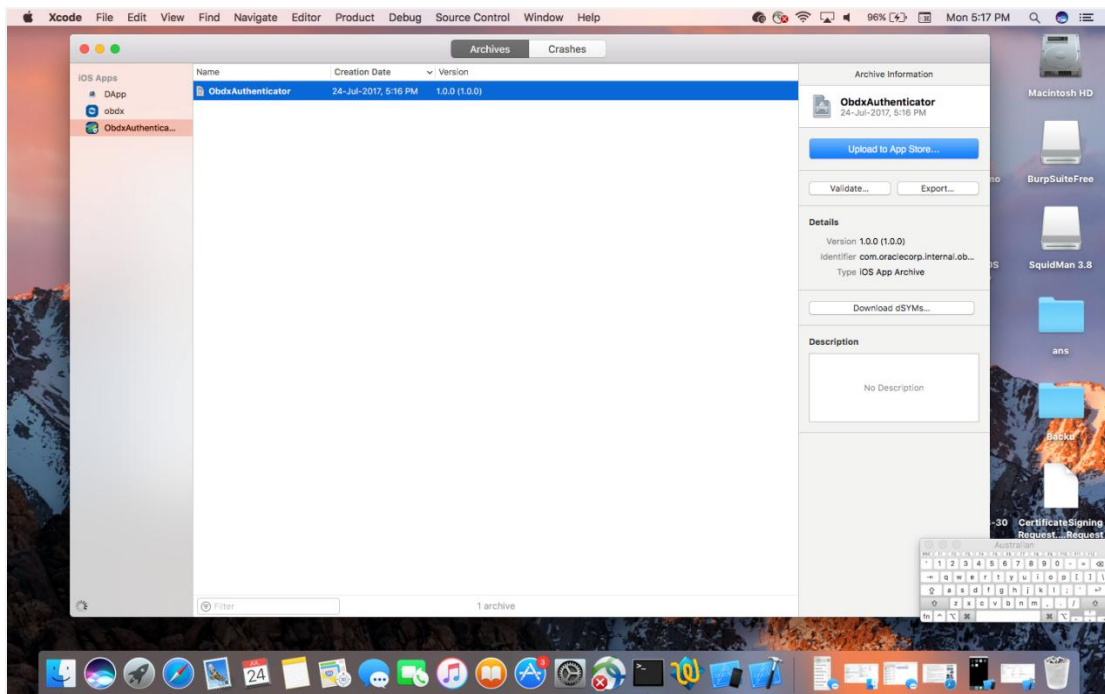


5.3 Building Authenticator Application

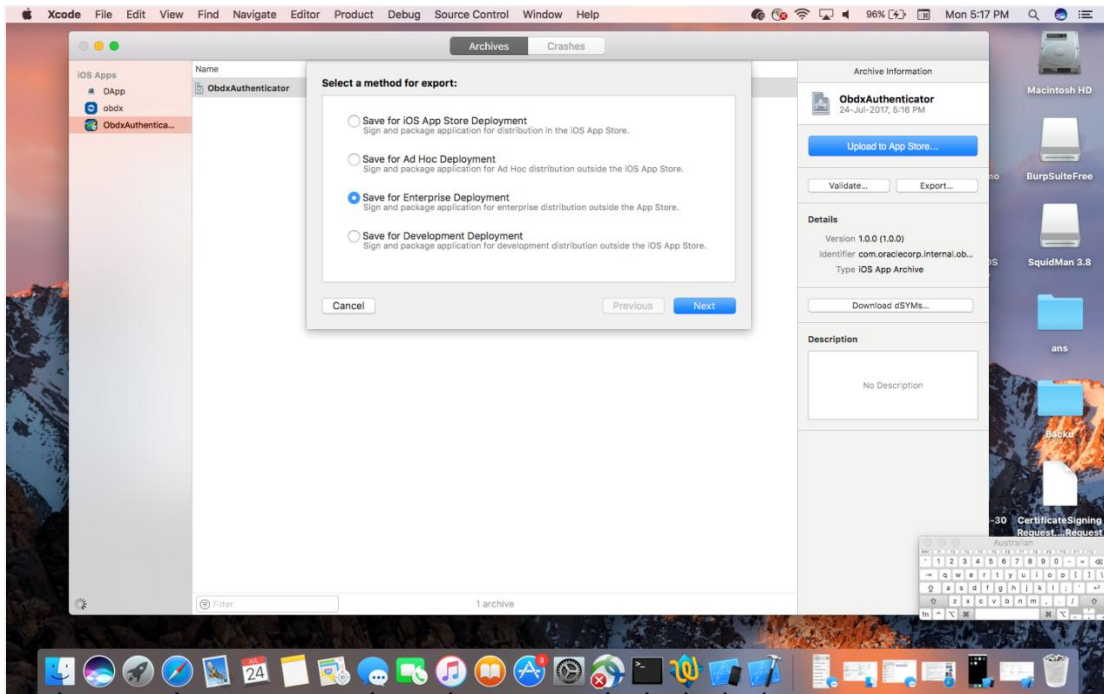
1. Set the simulator to *Generic iOS device*. Then go to *Product -> Archive*.



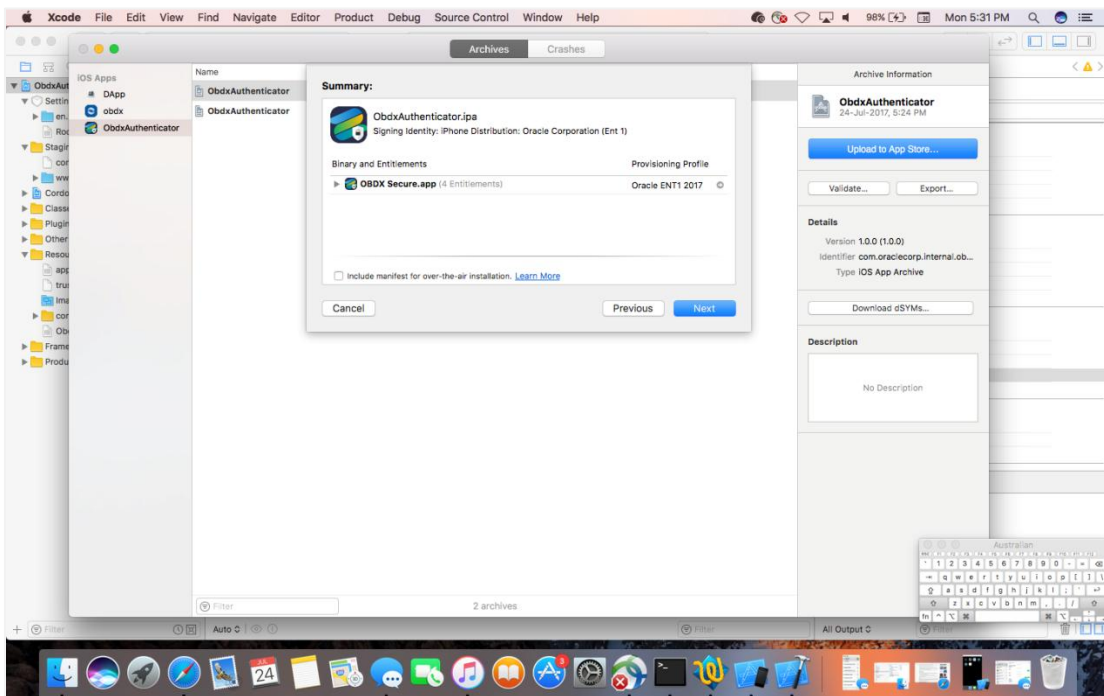
2. Choose your Archive and then click “Export”.



3. To get the API for releasing to the App Store choose – *Save for iOS App Store Deployment*. In my case, I am choosing – *Save for Enterprise Deployment*. Hit Next.



4. Choose the appropriate Development Team for Provisioning.
5. Then choose – *Export one app for all compatible devices* and hit Next.



- Choose the location where you want to save the archive. Open the location and find the `.ipa` file.

