

Developing on iOS 5 Devices

Stanford University

Running apps on a Device

- Apple has strict security regarding who can distribute apps
- Each app that is compiled to run on a device must be “code-signed”

2 Things You Need

- Two prerequisites to run an app on a device:
 - 1) Obtain Developer Certificate to “sign” the app
 - 2) Obtain Provisioning Profile which identifies your certificate, device, and app on that device

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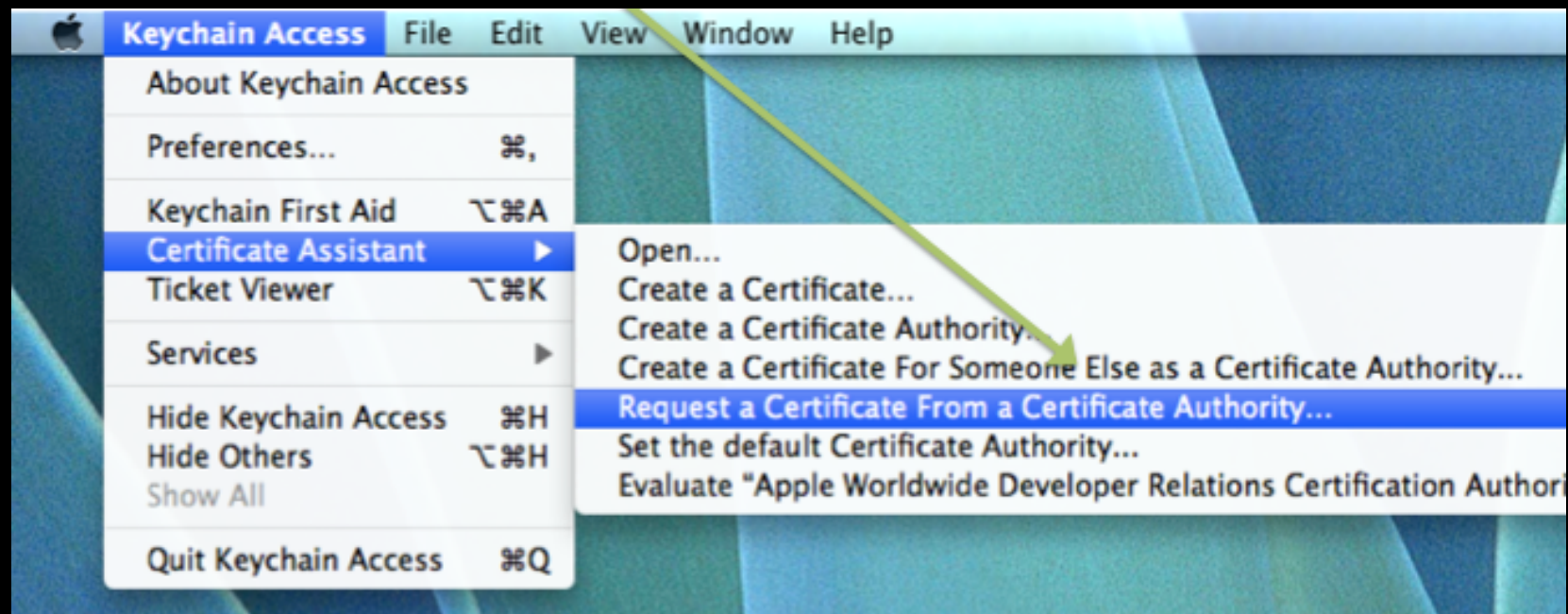
1st Thing - Developer Certificate

Three steps

- 1) Create a “certificate request”
- 2) Submit it (to Apple) via developer.apple.com
- 3) Download/Install certificate on your machine

1) Create a Certificate Request

- Open “Keychain Access” Application
- Select the following from the menu bar:



Certificate Assistant

Certificate Information

Enter information for the certificate you are requesting.
Click Continue to request a certificate from the CA.

User Email Address: [redacted].edu

Common Name: Salik Syed

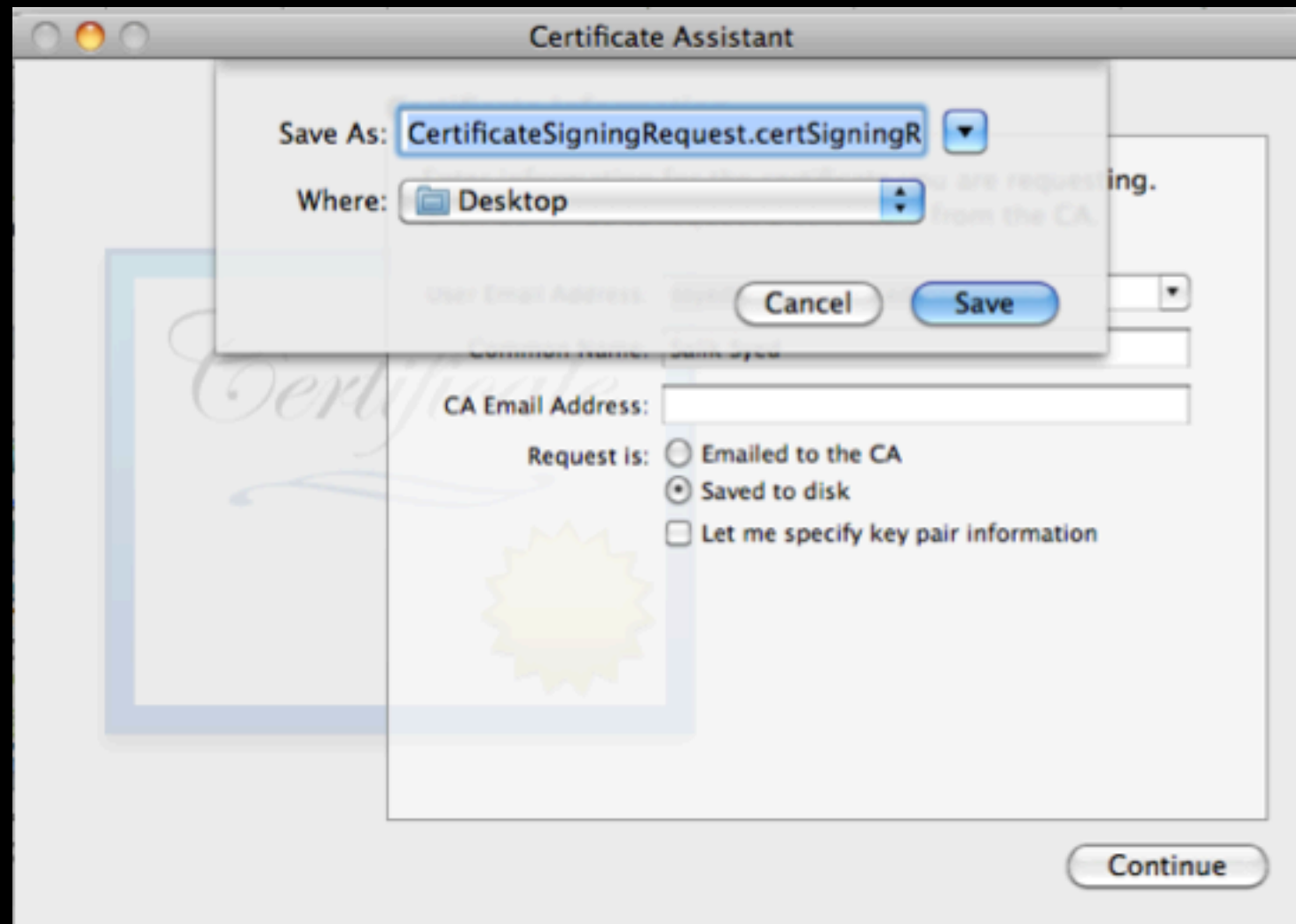
CA Email Address:

Request is:

- ☐ Emailed to the CA
- ☒ Saved to disk
- ☐ Let me specify key pair information

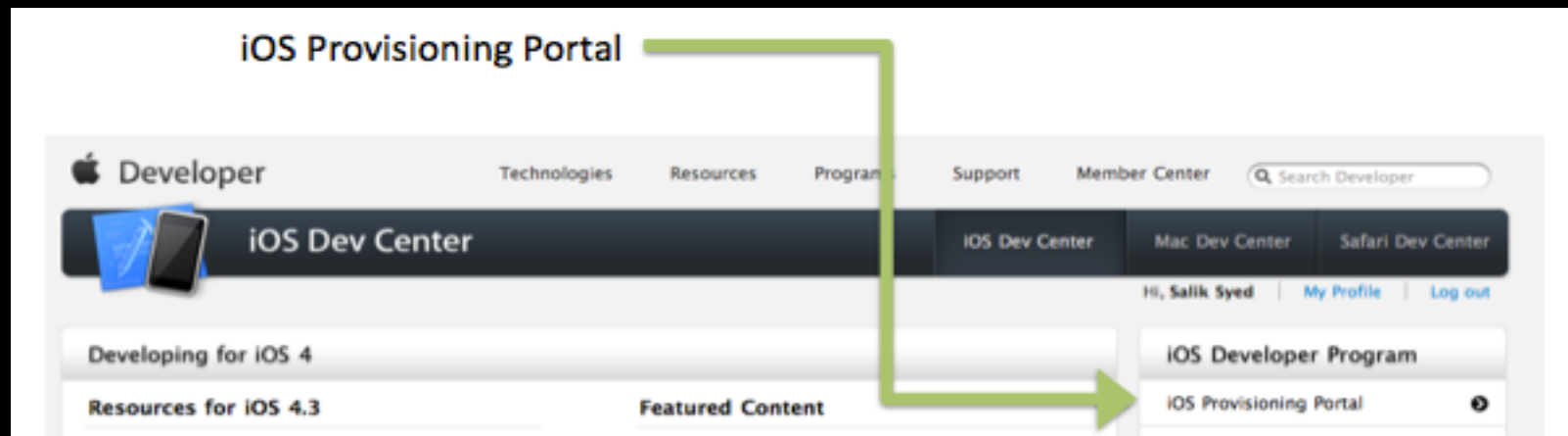
Continue

Ensure that "Saved to disk" option is chosen.
Use the same name and email that you used for your Developer account



2) Submit it via developer.apple.com

- <http://developer.apple.com> - Use Safari
- Click “iOS Dev Center”
- Login using the developer account you made
- Click iOS Provisioning Profile on right menu



Certificates Menu Link

Request Certificate

The screenshot shows the iOS Provisioning Portal for Stanford University. A green arrow points from the 'Certificates Menu Link' text to the 'Certificates' link in the left sidebar. Another green arrow points from the 'Request Certificate' text to the 'Request Certificate' button in the 'Your Certificate' section.

iOS Provisioning Portal

Welcome, Salik Syed | Edit Profile | Log out

Provisioning Portal : Stanford University (President/Provost) [Go to iOS Dev Center](#)

Home
Certificates
Devices
App IDs
Provisioning

Development | History | How To

Current Development Certificates

Your Certificate

Name	Provisioning Profiles	Expiration Date	Status	Action
ⓘ You currently do not have a valid certificate				Request Certificate

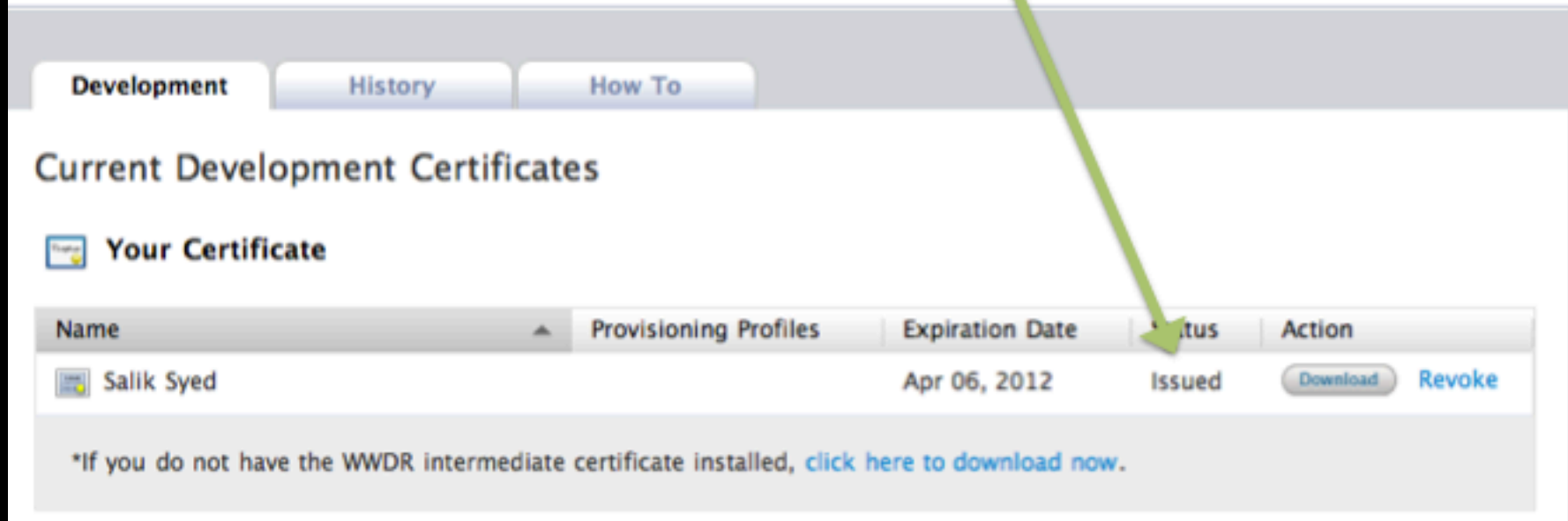
*If you do not have the WWDR intermediate certificate installed, [click here to download now](#).

Submit the Keychain Access file you created.

If using the University Program...

Yours may say "Pending Issuance" check back in a day and it should change status. (We need to approve all requests)

IMPORTANT: for the below line to appear, you may need to refresh your browser after uploading your certificate (and use safari!)



The screenshot shows the Apple Developer portal interface. At the top, there are tabs for 'Development', 'History', and 'How To'. Below these, the section 'Current Development Certificates' is visible. Under 'Your Certificate', there is a table with the following columns: Name, Provisioning Profiles, Expiration Date, Status, and Action. A green arrow points from the text box above to the 'Status' column of the table.

Name	Provisioning Profiles	Expiration Date	Status	Action
Salik Syed		Apr 06, 2012	Issued	Download Revoke

*If you do not have the WWDR intermediate certificate installed, [click here to download now.](#)

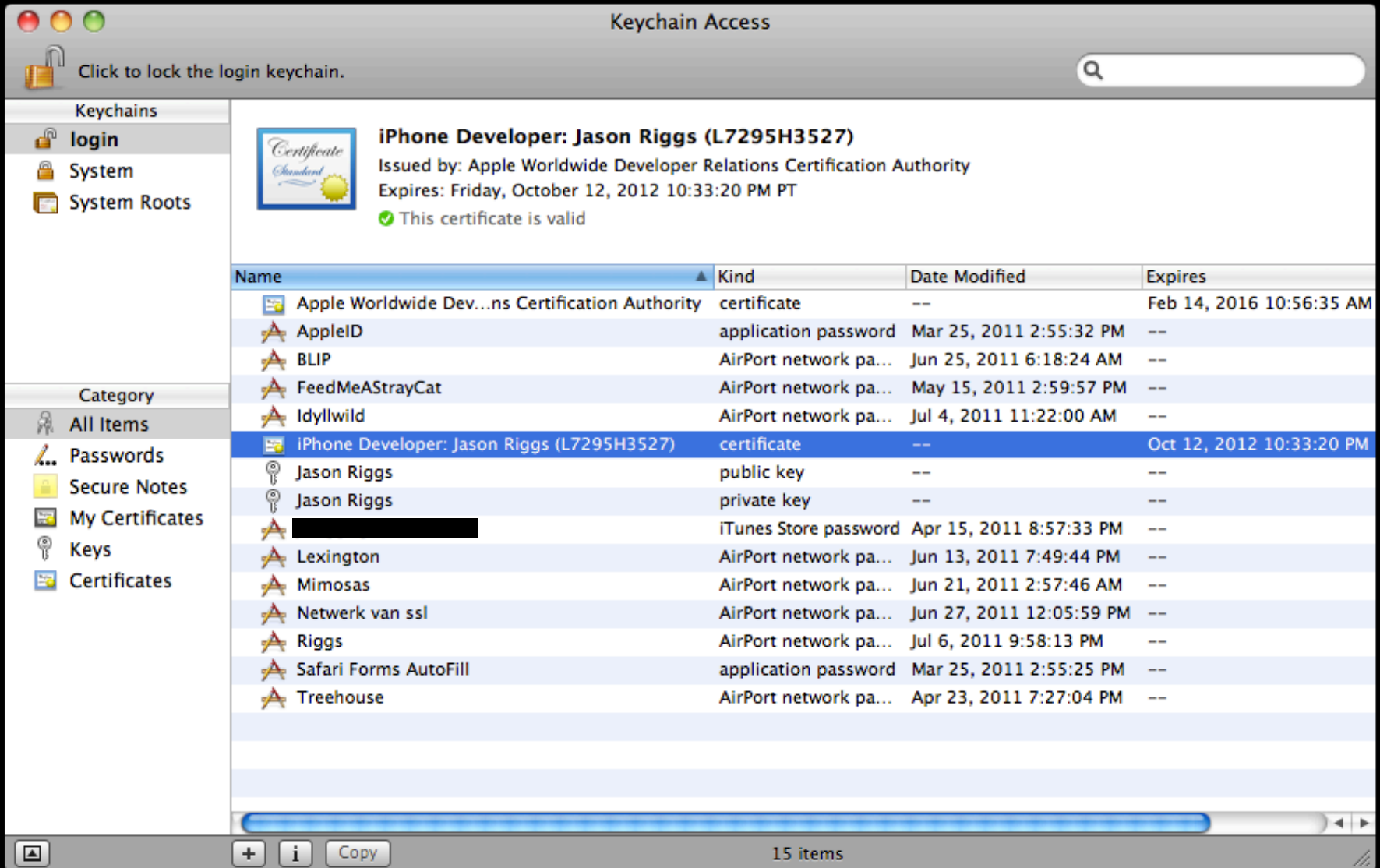
Also download the WWDR intermediate certificate



*If you do not have the WWDR intermediate certificate installed, [click here to download now](#).

3) Install certificate on your machine

- Once your certificate has changed status to “Issued”, you can click download
- First double click the WWDR certificate to install that – it will open Keychain Access
- Once you have saved your certificate, double click it – it will bring up Keychain Access



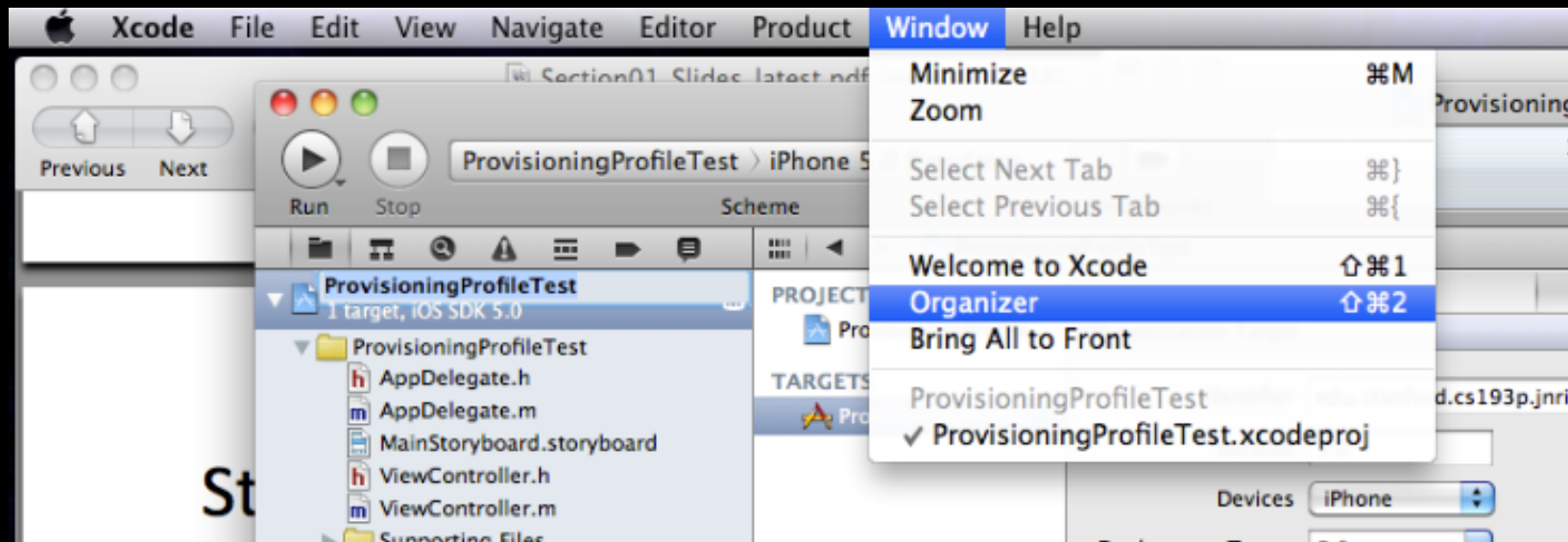
2 Things You Need

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2nd Thing – Provisioning Profile

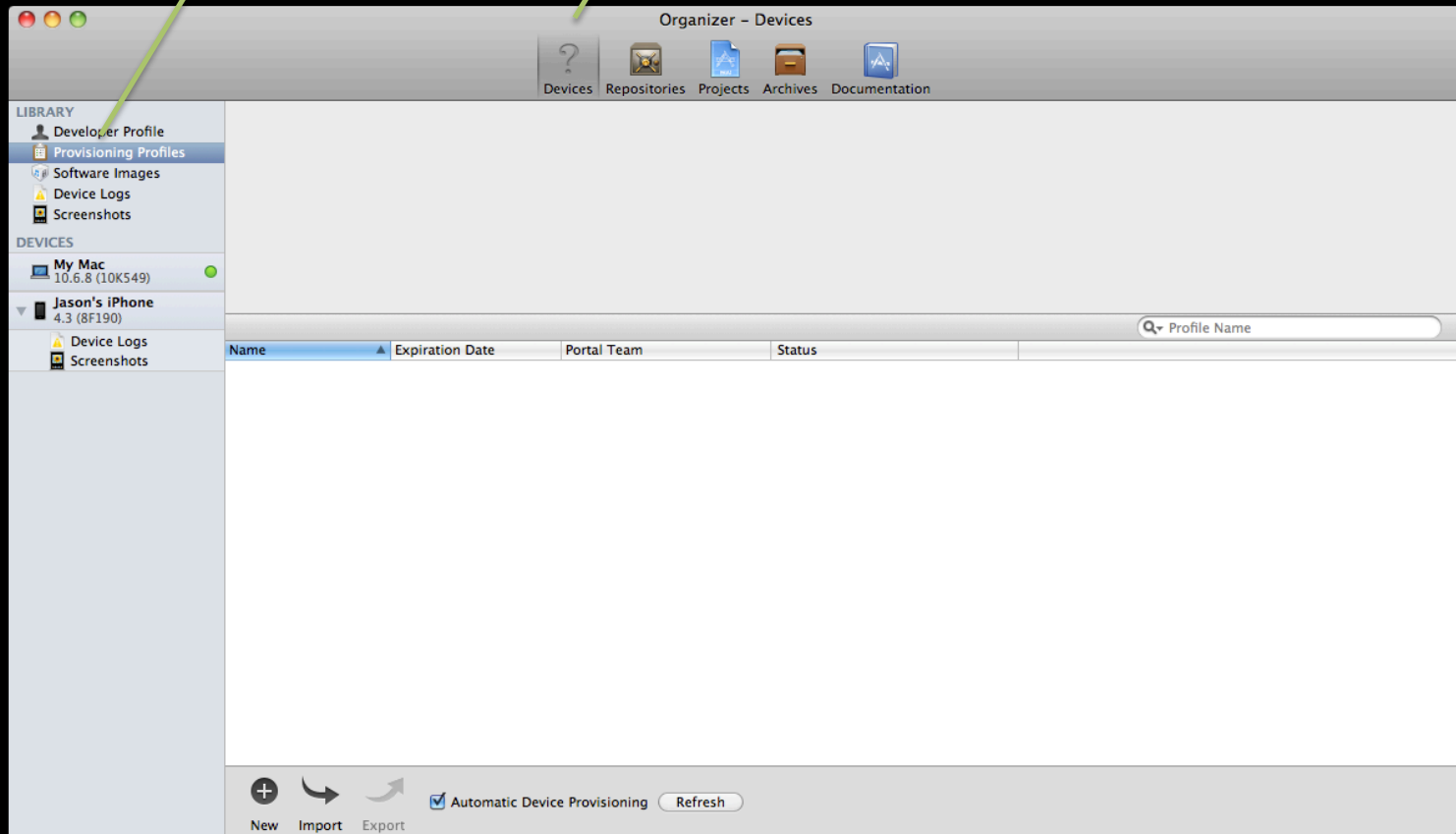
- 1) Open XCode's Organizer
- 2) Download it from iOS Provisioning Portal
- 3) Place it within XCode's organizer

Xcode's Organizer



1) Click on “Devices” tab

2) Click on the Provisioning Profiles Tab

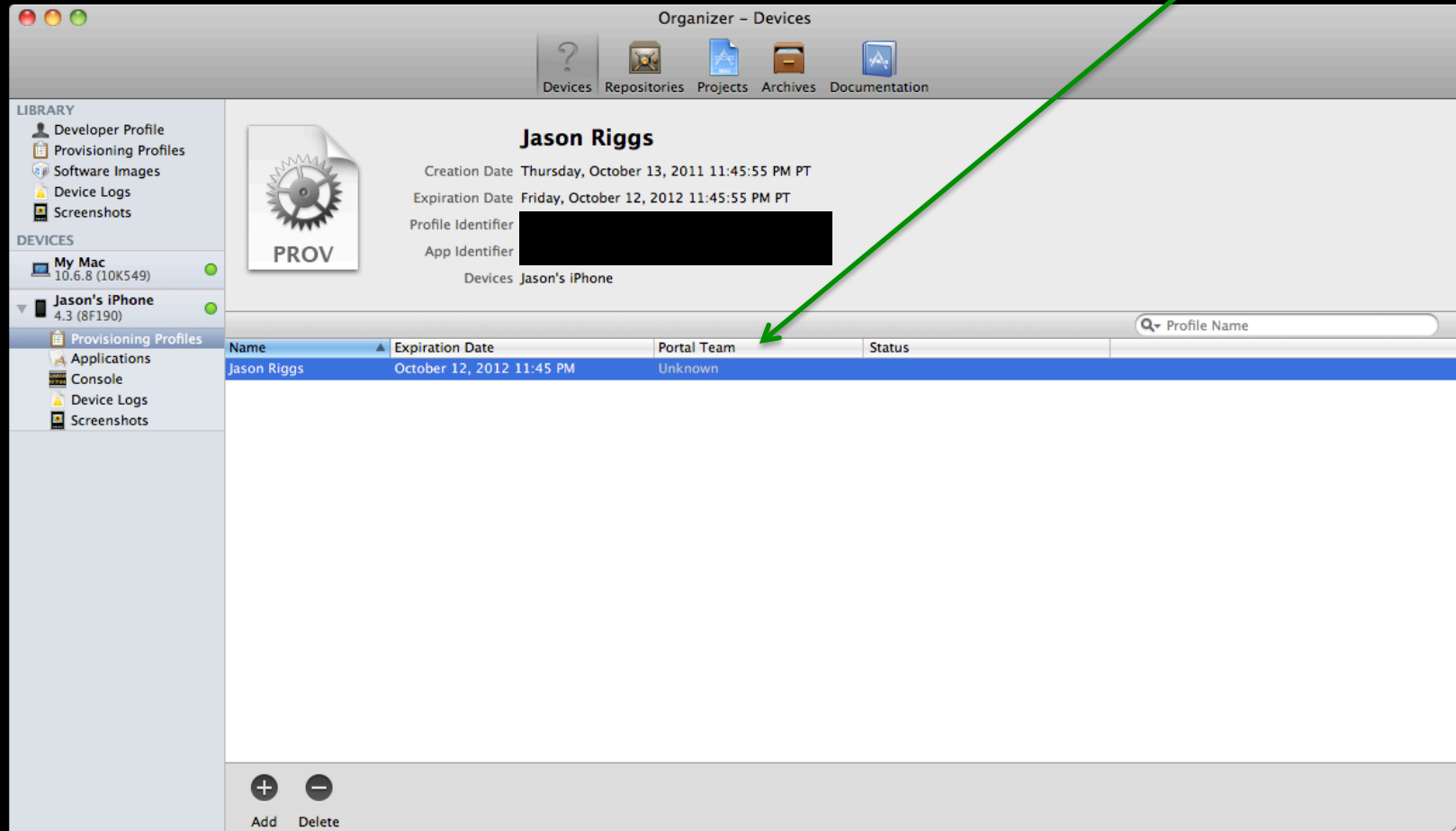


Download Provisioning Profile

- 1) Click iOS Dev Center on developer.apple.com
- 2) Go to iOS Provisioning Portal (right menu)
- 3) Click “Provisioning” (left menu)
- 4) Download the CS193p Fall 2011 Profile

(NOTE: You must have submitted your UDID to us via the staff e-mail, and we must have approved it. Otherwise it won't work.)

Problem if you don't see **this**



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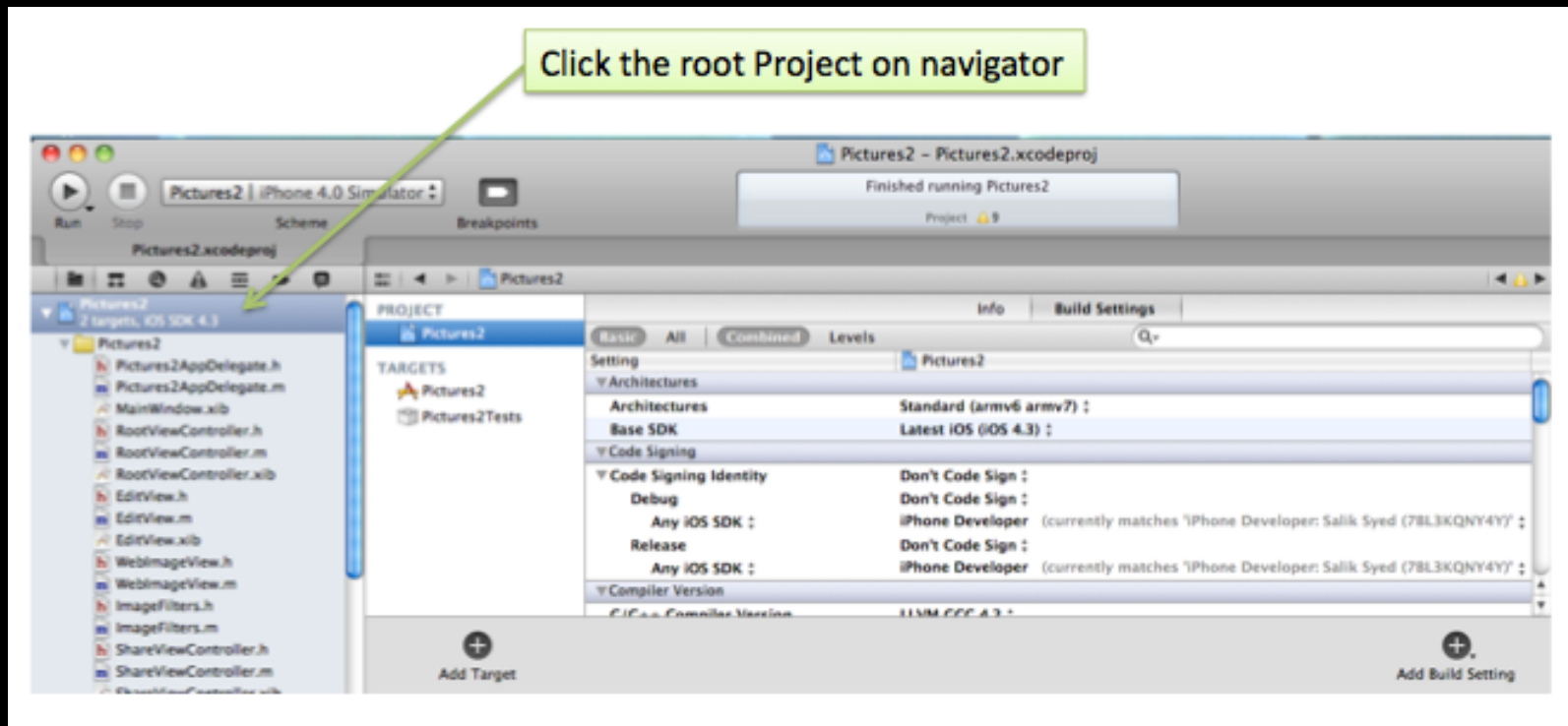
Running an App on your Device

Running an App on your Device

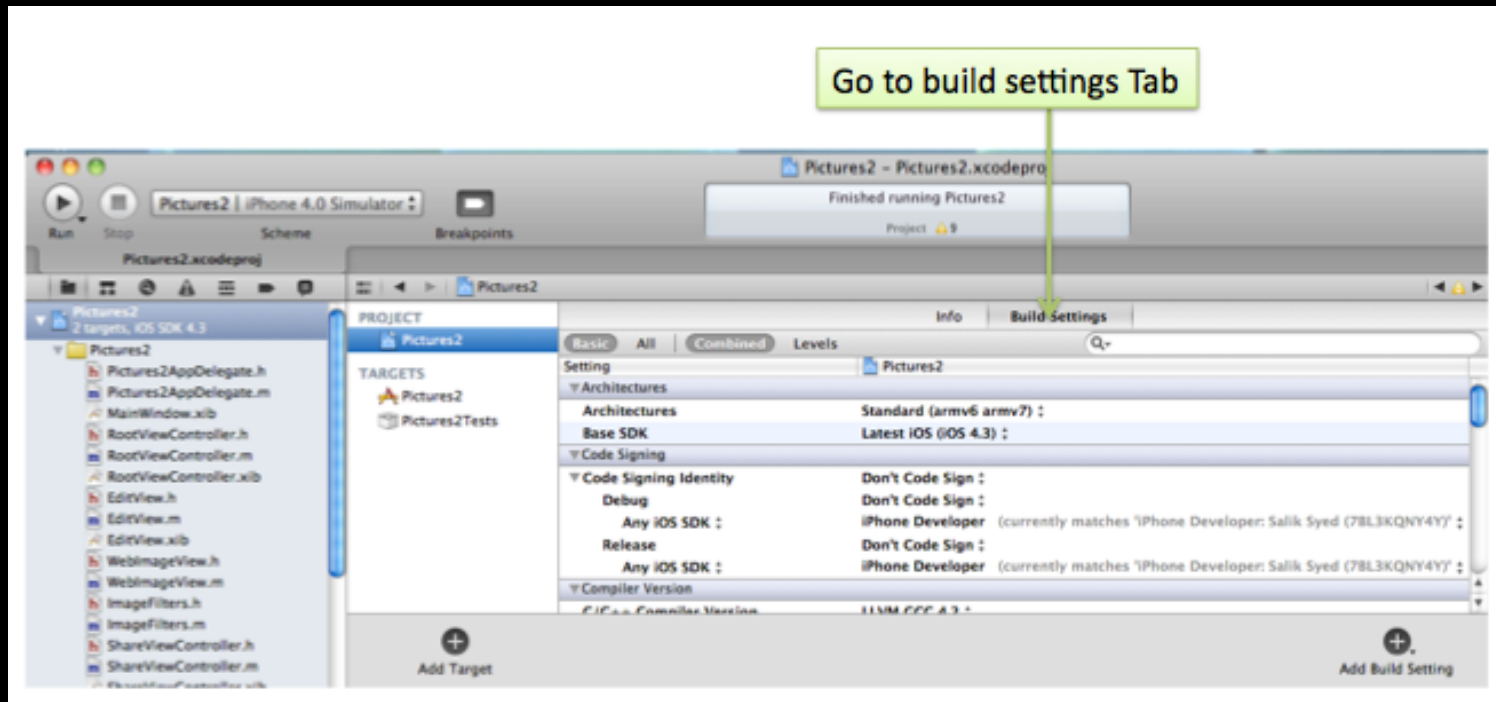
- 1) Set build settings to code sign App
- 2) Edit the .plist file of your App
- 3) Run it on your device

(NOTE: Steps 1-2 cause the app to be “code-signed.” XCode may handle these steps for you automatically in version 4.2 with iOS 5, but we’re including the steps here for double-checking. If you can’t automatically do step 3, ensure that steps 1 and 2 are working first.)

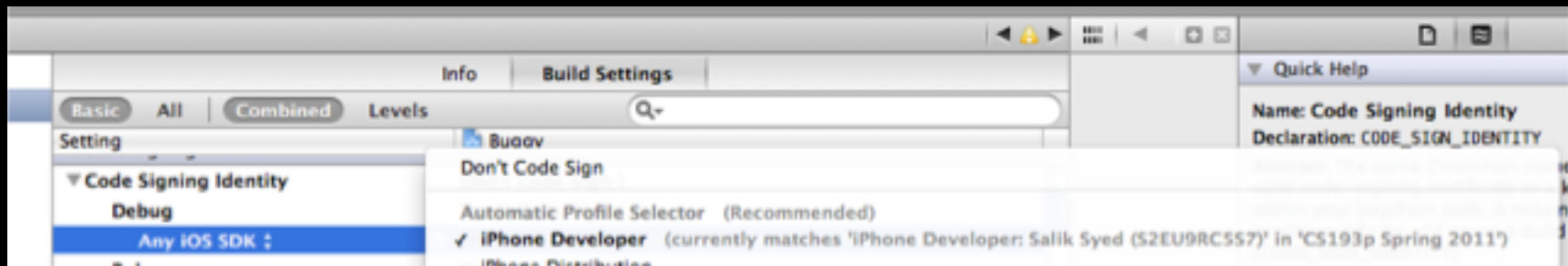
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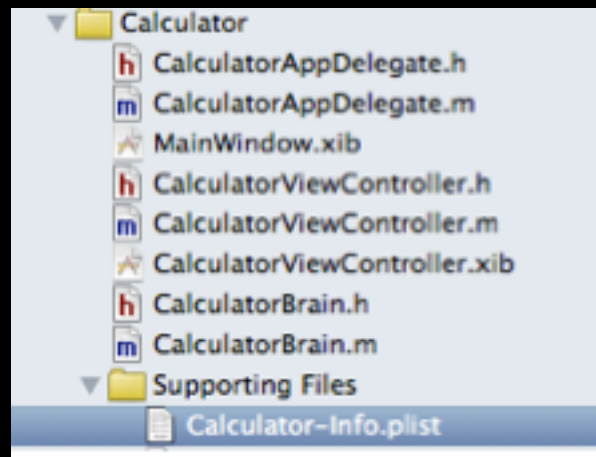


1) Set build settings to code sign App



2) Edit the .plist file of your App

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2) Edit the .plist file of your App

- Edit Bundle Identifier to be your provisioning profile (XCode 4.2 should have filled this for you automatically)

Localization native development region	String	en
Bundle display name	String	\${PRODUCT_NAME}
Executable file	String	\${EXECUTABLE_NAME}
▶ Icon files	Array	(0 items)
Bundle identifier	String	edu.stanford.cs193p.jnriggs.\${PRODUCT_NAME:rfc1034identifier}
InfoDictionary version	String	6.0
Bundle name	String	\${PRODUCT_NAME}
Bundle OS Type code	String	APPL
Bundle versions string, short	String	1.0
Bundle creator OS Type code	String	????
Bundle version	String	1.0
Application requires iPhone environment	Boolean	YES
Main storyboard file base name	String	MainStoryboard
▶ Supported interface orientations	Array	(3 items)

3) Run it on your device

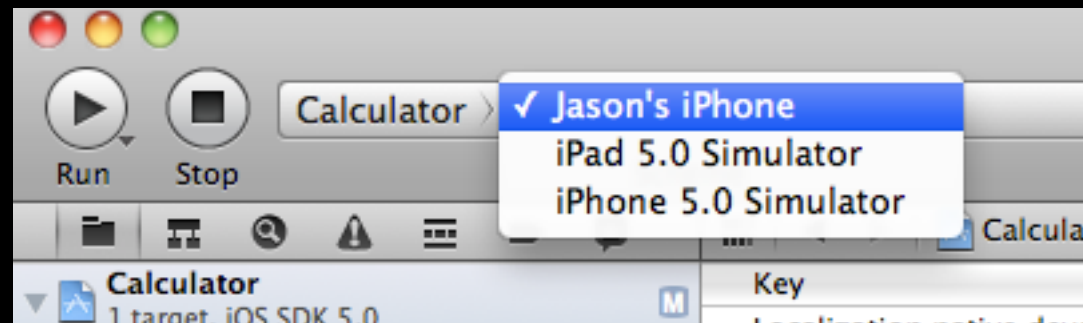
- You may have to go to the Organizer window of XCode, select your phone on the left menu, and click “Use for Development”

You know your device is ready if...



3) Run it on your device

- Select your device from the drop down-menu next to the Run and Stop buttons



That's it!