**IPA AUTOMATION DOCUMENTATION**

**Ipa generation and distribution process take in THREE steps**

1. Setting up MAC Machine.

2. Setting up Installrapp Account.

3. Trigger Gradle Script for do generation.

1. **SETTING UP MAC MACHINE**

We can configure a mac machine with one apple account. To code sign the IPA and for distributing the IPA to users via installrapp, we need **.P12 file.** To make .p12 file please refer the following link

**Link to make .P12 file**

1. <https://calvium.com/how-to-make-a-p12-file/>
2. <http://stackoverflow.com/questions/9418661/how-to-create-p12-certificate-for-ios-distribution>

NOTE:- while save the .P12 file in local it prompts for password, make sure it should same as your machine password.

Perquisites software to be installed

1. Gradle (<https://gradle.org/gradle-download/> )

2. Node

3. Cordova

4. Ionic

5. Java

6. CURL (get it from <https://curl.haxx.se/download.html> )

**How to set ENVIRONMENT VARIABLES:**

We can find the .profile in under /User/<machine user name> .(e.g)/Users/**administrator**/.profile(hidden file)

**Content of .profile file**

**GRADLE\_HOME=/Users/administrator/gradle;**

**CATALINA\_HOME=/Users/ administrator /Desktop/deploy/test123/apache-tomcat-8.0.18;**

**export GRADLE\_HOME**

**export CATALINA\_HOME**

**export PATH=$PATH:$GRADLE\_HOME/bin;$CATALINA\_HOME/bin;**

**2. SETTING UP INSTALLRAPP ACCOUNT**

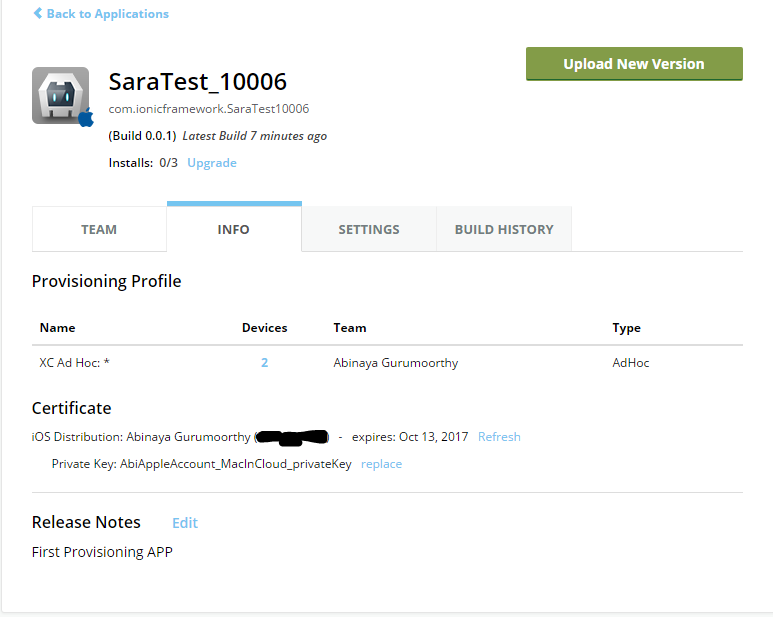
Before going to topic , User should give the username in geppetto as valid mail address.

When new user comes to geppetto **,**  we are going to get them account in installrapp with their user name in Geppetto.

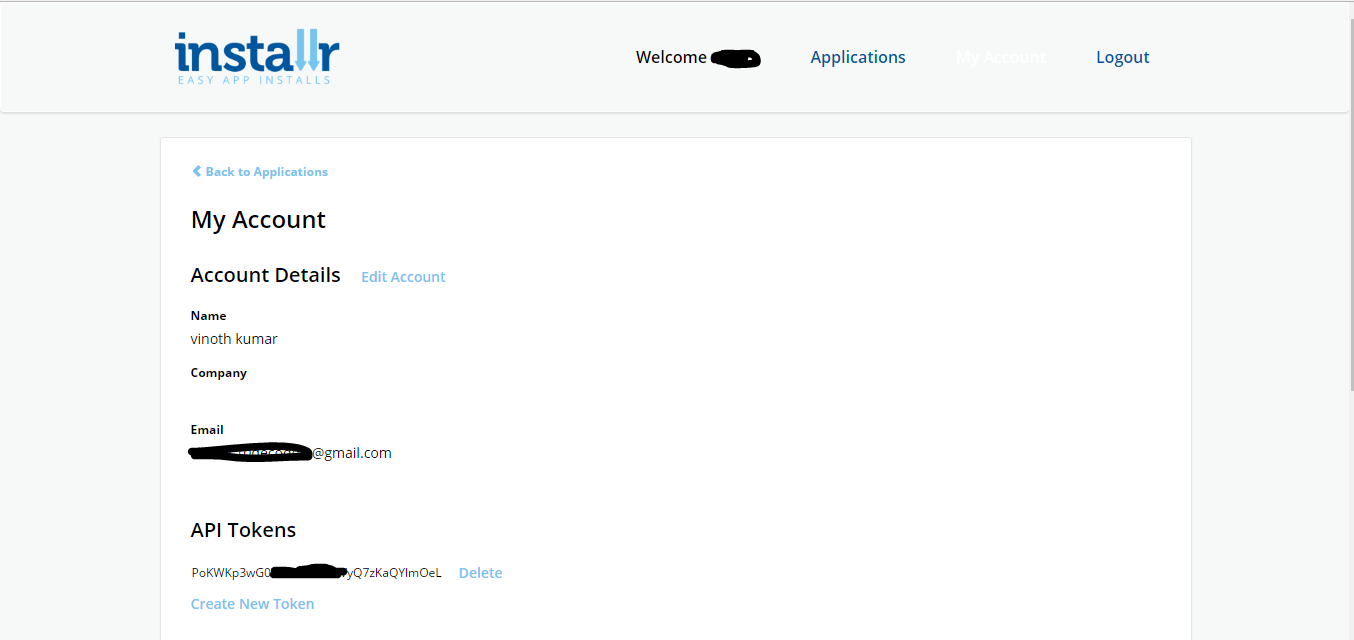
**Steps to create installr account :**

1. Go to installr app site (<https://www.installrapp.com/> )
2. Upload new application and Auto provision them manually.
3. P12 file of IPA where the mac IPA is build (mac machine).
4. It prompt for password of .P12 file .(remember the password while we create the .p12 file)

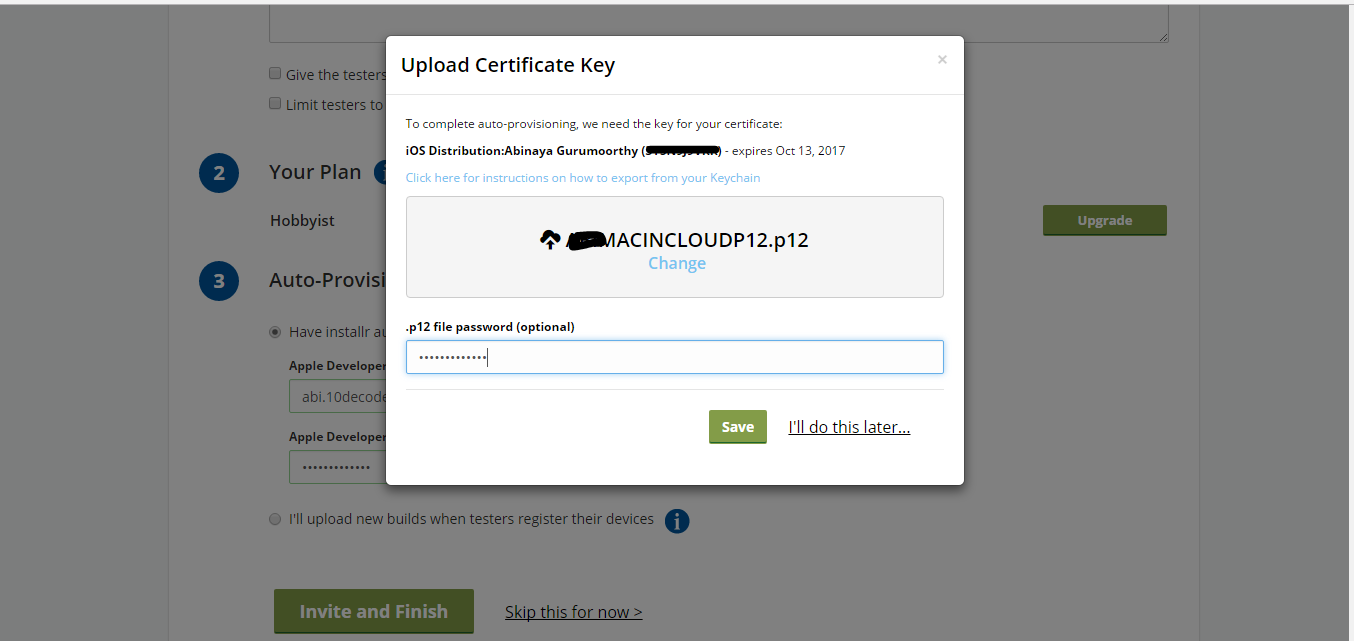
Add testers (users) email id in invite testers column and finish.



A. Once Auto provision done for initial app (u can see like this)



B. U can get the API token for installr by just clinking the create new token in My account menu.



C. It prompts for .P12 file for the apple account u need to sync up with installr app.

All we need to do is create an account in installr and upload the Dummy IPA and do Autoprovisioning manually for the very first time.

Once .p12 file uploaded for very first application. No need to auto provision subsequent application.

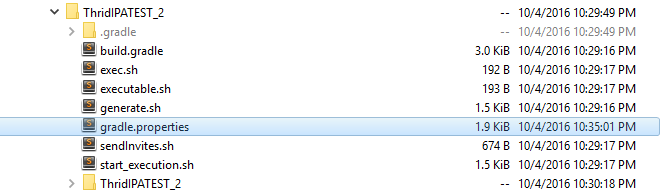
**3. Trigger Gradle Script for do generation of IPA**

(i.e) what gradle script in Mac machine do for IPA generation.

**Step 3: Steps (task) in Build.gradle file**

Step 3.1: Delete existing IPA file, if we created earlier.

Step 3.2: Making JSON file for **adding tester to Installr** (data .Json).



**Fig 1.0 All Files for IPA generation from linux box**

Step 3.3: Now we are going to create IPA. So initially we need to remove and add IOS Platform in ionic project. Because we need to create xcode project with new application details.

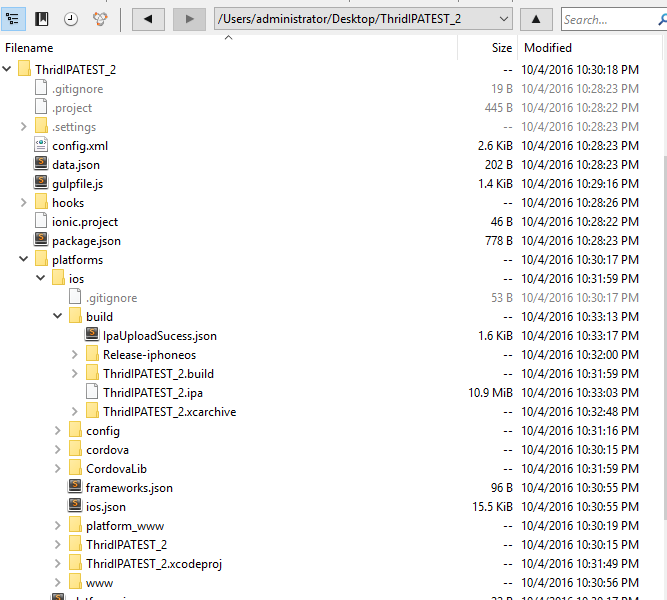
Step 3.4: Then have to configure some properties in Xcode. Such as ENABLE\_BITCODE, HEADER\_SEARCH\_PATHS.

**Content of global.config file:**

**HEADER\_SEARCH\_PATHS = "$(TARGET\_BUILD\_DIR)/usr/local/lib/include" "$(OBJROOT)/UninstalledProducts/include" "$(BUILT\_PRODUCTS\_DIR)" "$(OBJROOT)/UninstalledProducts/$(PLATFORM\_NAME)/include"**

Step 3.9: So from here, we are going to Clean, Build, and Archive the Xcodeproject and Export it as an IPA.

Step 3.10: Now we have IPA file in some location (Folder).



Fig(2.0) Ionic Application

**Xcode Syntax for IPA generation:**

1. Select the project for clean the workspace on xcode.

2. Make archive for the same project for generic platform ios device target.

3.Build Xcode the archive file as IPA file with provision profile “XC Ad Hoc:

xcodebuild clean -project EndToEndFlow\_10031.xcodeproj -configuration Release -alltargets

xcodebuild archive -project EndToEndFlow\_10031.xcodeproj -scheme EndToEndFlow\_10031 -destination generic/platform=iOS -archivePath "build/"EndToEndFlow\_10031.xcarchive

xcodebuild -exportArchive -archivePath "build/"EndToEndFlow\_10031.xcarchive -exportPath "build/"EndToEndFlow\_10031 -exportFormat ipa -exportProvisioningProfile "XC Ad Hoc: \*"

(a)Xcode code for build IPA with code sign

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**Step 4: Uploading IPA into Installr for distribution**

Step 4.1: By using API token in installr, we can interact with it. (i.e Curl command with API token are used to upload IPA into installr ).

curl -H "X-InstallrAppToken: Wfrl35ZivURJW2zVq4UTowaniewo1vez" https://www.installrapp.com/apps.json -F qqfile=@EndToEndFlow\_10031.ipa

Step 4.2: After finishing the upload .you can find your IOS application in installr with Build Number.

**Note: Configuring your Installr account:**

Installr can distribute the application to end user. But we need to configure it with Apple developer account for provisioning the application.

**Step 4: Send invitation to end user for generated IPA file.**

Sending invitation for IPA to an end user .we need to copy sendinvites.sh from **Users/administrator/send\_invites.sh** file.