Towson University Honor College App

GitHub Location: <https://github.com/miggy8234/TUHC_mobileapp>

FreedCamp Location: <https://freedcamp.com/Bethanys_Projects_DUT/Honors_College__MTA>

**Goal**: The goal of this application is to become a student enhancement that like the honors college enhances students experience at Towson University. Become a place of work, studying, and socialized. Uniting current students and alumnus in ways not seen before.

**Features**: There is a full feature list on the Freedcamp account.

**Tools needed:**

To develop for this application there will be a few items you need installed on your computer. First you need to install Xcode along with Android Studio. This is needed because even though it is a hybrid application there are still native builds and settings.

Then you need to install what the application was build in Ionic Framework (<http://ionicframework.com/>). I personally think they have excellent documentation however if you find that confusing just contact me and I can help you set it up takes 30 minutes max.

The last thing you need or at least need to consider is debugging. So I **STRONGLY** suggest running/testing/debugging on the simulator or a device. But to debug the web application because it is in a browser on the phone you will need to enable debugging on the device/emulator and then open the debug console in the browser (Chrome/Safari). For Apple products there is nothing to enable but developer mode for Safari the link to that is (<https://developer.apple.com/safari/tools/>). For Android there is no browser setup but the device needs to be in developer mode and have debugging enabled the link for this is (<https://developer.chrome.com/devtools/docs/remote-debugging>). These will normally give you reasonable errors that with one Google and stack overflow result will give you some answer.

**Using Ionic:**

So you will realize Ionic’s primary outlet is there CLI(Command Line Interface) that is very powerful. You can start an app, test, run, emulate, create logos and splash screens, and even submit the app through it. Become familiar with these commands because that will be your primary interaction. Also be sure to utilize live loading (-l) because this will keep you from needing to reinstall on the emulators as much. Also don't be scared to emulate on both iOS and Android at once given your computer can handle it.

The second thing I want to mention is Ionic’s documentation for there objects and examples. So if you are looking for something a great place to see it first is here (<http://ionicframework.com/docs/components/>). And that is the physical objects, if you are looking for something like pull to refresh look here (<http://ionicframework.com/docs/api/>). Now lets say you need an icon look here (<http://ionicons.com/>). Last thing I want to mention is lets say you want to build a page in a drag and drop then make it work well look here (<https://creator.ionic.io/app/login>). Ionic has many “nice” features that are free and can help you.

The next thing I want to mention is being able to see some examples and just see what you can do in a place that you can copy and paste from. This magical place is called [CodePen.io](http://codepen.io) at (<http://codepen.io/>). I found this going through some Ionic forms and seeing the answers here even if you just want to see how something works.

And the last thing that you will need to understand is that the Javascript of the app is in an AngularJs form. You can read the development documentation here (<https://docs.angularjs.org/guide>). There are many features and things here that will simply save you **TIME**. One of the best things in my opinion is ng-repeat which can be summarized as a front end for each statement that takes HTML code and copies it for each element in a collection. So this makes for an easy feed when you are just repeating information.

**Ionic Templates:**

This is its own section because it is one of few things I did not see explained well on Ionic’s website. So the first idea is templates, if you have reviewed the files on my GitHub you will notice in the “www” folder there is the index.html and there is a “templates” folder with multiple html files. The idea here is all the templates/pages could be in the index.html file but then it would be large and hard to manage. So each page, tab, model, and popup can have its own file for fast changes and easy readability. These templates are manages in the “app.js” file in the “js” folder. This links a template with a URL and a controller it also allows parameters to be passed such as an ID to display a user profile.

**API use:**

**PLEASE PLEASE PLEASE** do not reinvent the wheel if you do not have to. One of the best things in my option about Ionic is if the app is data centric and utilizes API’s properly it needs no backend and little development. So my goal was to use gapi (Google API) for Google Authentication, Google Calendar, Chats (Emails/G+), Google Maps, storing info for flash cards (Drive/Docs), and to validate they are a member of the college and honors college.

Thus far I am using gapi, nginstafeed, and ngcordova to minimize development. Others I would suggest are Parse, Facebook, Twitter, Kahn Academy, and Wolfram Alpha.

Besides API’s Ionic has become popular recently and you can find many things on GitHub that will fix or make easier what you are trying to accomplish. For example I suggest making the flash cards similar to Tinder Cards and you can find an easy way to do that here (<https://github.com/driftyco/ionic-ion-tinder-cards>). Example on CodePen (<http://codepen.io/ionic/pen/nxEdH>).

And the last thing for this is two articles with lists of API’s that you may find useful:

**<http://www.webdesignerdepot.com/2011/07/40-useful-apis-for-web-designers-and-developers/>**

**<http://www.computersciencezone.org/50-most-useful-apis-for-developers/>**