



# Converting Angular Web Application into Ionic App

Better guidance to create a mobile app for an existing Angular application



Prathibha Perera  
Jun 7 · 4 min read



Google Image

...

In the software industry, after you successfully built a web application aligned with the client requirements, you may be asked to build a mobile application for the same web application to address mobile users' requirements. Therefore this article will provide you with better guidance to convert an existing web application developed using Angular into an Ionic native app by simple and detailed instructions.

*Angular is a famous front-end web development framework which is Typescript-based and open source. Angular is a developed version of AngularJS. Angular Components are used to modify our program HTML, CSS, and logic. Angular Services can be injected into Components and by adding services our code can be reusable.*

*Ionic is a mobile application development framework which is an open-source SDK and guides to build HTML5 mobile applications. Ionic can handle mobile UIs in an efficient manner by bringing mobile app feeling to the user.*

First, you must have an existing Angular project (assume that project is named "angular-ionic"), or if not you must create it using the following CLI command.

```
ng new angular-ionic
```

Then you must navigate to that newly created directory or if you have an existing project, move to that directory using the following command.

```
cd angular-ionic
```

Our purpose is to create a mobile app for the same web application, therefore it is needed to add Ionic to the existing project. To do that you can use the Angular CLI command "ng add" to import Ionic packages to the existing project. The following command will help you to do that.

```
ng add @ionic/angular
```

After successful package installation, you will take the output as follows.

```
Using package manager: npm
Found compatible package version: @ionic/angular@5.6.8.
Package information loaded.
Package successfully installed.
UPDATE src/theme/variables.css (288 bytes)
UPDATE package.json (1285 bytes)
UPDATE src/app/app.module.ts (466 bytes)
UPDATE angular.json (5928 bytes)
Packages installed successfully.
```

Then you must initialize your existing project with Ionic by using the following command. If you use this command you will ask a question to enter your project name. Make sure to enter the project name as your existing project name. In this case project name is angular-ionic.

```
ionic init
```

```
Project name: angular-ionic  
[OK] Your Ionic project has been initialized!
```

After successful initialization of Ionic to the project, you should be done below 2 changes to the angular.json file which provides details about project-specific configurations.

1. Change outputPath “dist/angular-ionic” to “www” in the angular.json file to set folders to build Ionic project for www.

```
angular.json M X  
angular.json > ...  
1 {  
2   "$schema": "./node_modules/@angular/cli/lib/config/schema.json",  
3   "version": 1,  
4   "newProjectRoot": "projects",  
5   "projects": {  
6     "angular-ionic": {  
7       "projectType": "application",  
8       "schematics": {},  
9       "root": "",  
10      "sourceRoot": "src",  
11      "prefix": "app",  
12      "architect": {  
13        "build": {  
14          "builder": "@angular-devkit/build-angular:browser",  
15          "options": {  
16            "outputPath": "dist/angular-ionic",  
17            "index": "src/index.html",  
18            "main": "src/main.ts",  
19            "polyfills": "src/polyfills.ts",  
20            "tsConfig": "tsconfig.app.json",  
21            "assets": [br/>22              "src/favicon.ico",  
23              "src/assets"  
24            ],  
25            "styles": [br/>26              "src/styles.css"  
27            ],  
28            "scripts": []  
29          },  
30          "configurations": {  
31            "production": {  
32              "fileReplacements": [br/>33                {  
34                  "replace": "src/environments/environment.prod.ts",  
35                  "with": "src/environments/environment.prod.ts"  
36                }  
37              ],  
38              "optimization": true,  
39              "outputPath": "dist",  
40              "sourceMap": false,  
41              "namedChunks": false,  
42              "aot": true,  
43              "extractLicenses": true,  
44              "vendorChunk": false,  
45              "buildOptimizer": true  
46            }  
47          }  
48        }  
49      }  
50    }  
51  }  
52 }
```

to convert an existing web application developed using Angular into an Ionic native app by simple and detailed instructions.

Angular is a famous front-end web development framework which is Typescript-based and open source. Angular is a developed version of AngularJS. Angular Components are used to modify our program HTML, CSS, and logic. Angular Services can be injected into Components and by adding services our code can be reusable.

Ionic is a mobile application development framework which is an open-source SDK and guides to build HTML5 mobile applications. Ionic can handle mobile UIs in an efficient manner by bringing mobile app feeling to the user.

First, you must have an existing Angular project (assume that project is named “angular-ionic”), or if not you must create it using the following CLI command.

```
ng new angular-ionic
```

Then you must navigate to that newly created directory or if you have an existing project, move to that directory using the following command.

```
10 <body>  
11 | <app-root></app-root> <base href="/">  
12 </body>  
13 </html>  
14 |
```

...

After doing the above changes you can create an Android APK for your project and use the following command to do so.

Here you can see that with use of [cordova](#) we could render our web application into a native web view. Cordova is an open source framework which can be used to implement native application for various mobile platforms by using [HTML, CSS, and JavaScript contents](#).

Your built Android APK can be found under the platform's root folder and move with “platforms\android\app\build\outputs\apk\debug”. You can install it via mobile phone or by enabling the emulator you can see your Ionic mobile app!!!

```
ionic cordova run android --project="angular-ionic"
```

Great... You will end up with a mobile application that has been built upon your web application.



Welcome





angular-ionic app is running!

## Resources

Here are some links to help you get started:



[Learn Angular](#) >



< > [CLI Documentation](#) >



[Angular Blog](#) >

## Next Steps

What do you want to do next with your app?



+ New Component



+ Angular Material



+ Add PWA Support



+ Add Dependency



+ Run and Watch Tests



+ Build for Production



```
ng generate component xyz
```

It is important to notice that, you may have to fix mobile responsiveness issues of your native app like alignment issues, the appearance of icons and images, spacing issues, etc.

...

## Conclusion

This article provides you, how to build a mobile app for existing Angular applications using Ionic. By following the above instructions you will end up with the successful creation of a mobile app.

Thank you for reading 😊!!!!

### Sign up for Top Stories

By Level Up Coding

A monthly summary of the best stories shared in Level Up Coding [Take a look](#).



Get this newsletter

Angular

Ionic

Cordova



373



1



WRITTEN BY

**Prathibha Perera**

Final Year Undergraduate at Faculty of Information Technology,  
University of Moratuwa. Tech enthusiast and Dedicated.

Follow




**Level Up Coding**

Coding tutorials and news. The developer homepage  
[gitconnected.com](#) && [skilled.dev](#)


Follow

Elastic Logstash Kibana (ELK) and multiline Java (SpringBoot) logs




Dmitry Ermolchik

Demystifying the Mystical: My Foray into the World of AI




Mubbysani in ai6-llorin

iOS: Certificate Pinning with Alamofire




Prafulla Singh in Mac O'Clock

Python Packages for Data Science




Jose Dominguez in Digital Studio Stream

My Blog on Red Hat Developer about Java development on top of Kubernetes using Eclipse JKube




Rohan Kumar

Propeller game using JavaScript, HTML, and CSS




Sagar Shrestha in Level Up Coding

Testing a rails app



Sai Adithya Reddy Ch

Unsplash Release: Brookes



Luke Chesser in Unsplash Blog

#### Learn more.

Medium is an open platform where 170 million readers come to find insightful and dynamic thinking. Here, expert and undiscovered voices alike dive into the heart of any topic and bring new ideas to the surface. [Learn more](#)

#### Make Medium yours.

Follow the writers, publications, and topics that matter to you, and you'll see them on your homepage and in your inbox. [Explore](#)

#### Write a story on Medium.

If you have a story to tell, knowledge to share, or a perspective to offer — welcome home. It's easy and free to post your thinking on any topic. [Start a blog](#)



[About](#) [Write](#) [Help](#) [Legal](#)