

# Cross Platform Mobile App Development Using Ionic on Angular

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# About Ionic Framework

- ❖ Ionic Framework is an open source UI toolkit for building performant, high-quality hybrid mobile app using web technologies (HTML, CSS, and JavaScript).
- ❖ Ionic Framework is focused on the frontend user experience. The original version was released in 2013 and built on top of AngularJS and Apache Cordova. It use Cordova to access phone functionalities. Currently, Ionic Framework has official integrations with Angular and React, and can use Capacitor.
- ❖ The Ionic CLI is built with TypeScript and Node.js

# HYBRID

Builds and deploy apps that work across multiple platforms, such as native iOS, Android, desktop, and the web as a Progressive Web App - all with one code base. Write once, run anywhere.

Hybrid App	Native App
Developed using HTML, CSS, and Javascript	Developed in platform specific language, Objective-C or Swift for iOS, Java for Android, etc.
Write Once, Run Anywhere	Separate code for each platform
Medium performance comparable to Native apps	Fastest and most responsive experience to users
Save Time and Money	Higher investment of time, talent and resources
Faster development cycle	Higher costs and development time

Appflow is a continuous integration (CI) and continuous deployment (CD) platform for Ionic development teams.

Appflow helps development teams continuously build and ship their iOS, Android, and web apps faster than ever. Provides live updates and hotfixes to user devices instantly without going through the app stores.

**Sign up to Appflow**

**Also download Sublime (optional)**

# Setup & install

## Node & npm

To build Ionic Framework apps,  
Go to Node's [Website](#) to download [Node](#)  
the LTS version to ensure best compatibility.

## Install Ionic CLI

Now that Node.js and npm are installed,  
install the Ionic CLI globally with npm:

**npm install -g ionic**

# Create your app

## Choose an app template

Create an Ionic app using one of the pre-made app templates. The three most common starters are the **blank** starter, **tabs** starter, and **sidemenu** starter.

To create your App:

open a new terminal window and run:

**ionic start myApp tabs**

# Running the App

## Testing in a browser

Now, you can `cd` into the folder that was created.

Invoke *Ionic Serve*, thus

`cd myApp`

`ionic serve`

To stop the Server, press Control + C.

# EDITING YOUR APP

1. Use Editors: Notepad, Sublime, VS-Code...
2. Download and Install Sublime,
3. In Sublime, Click on **Preference Menu**,
4. click on package control
5. click on install
6. Then type: Ionic snippet
7. Press Enter, wait for the installation.

# Important short cut

- ◆ Ctr + Shift + J
- ◆ Ctr+ C
- ◆ <https://ionicframework.com/docs/>
- ◆ <https://ion.link/advisory>
- ◆ <https://ionicframework.com/docs/appflow>

# Open the File

- ❖ From Sublime, Click on **Project Menu**
- ❖ Click on Add Folder to Project
- ❖ Open your Drive C:, Locate App Folder and click it.
- ❖ Click on the Folder, Click Select Folder
- ❖ Expand the Folder Tree at the left side
- ❖ Locate **SRC => App => .html**
- ❖ Also edit page.ts and module.ts if you know how

# Links (page.html)

- ◆ <ion-card color="tertiary">
- ◆ <ion-card-header style="background-color: #0066bb; color:white">
- ◆ <ion-card-title style="color:white">Engr.chid's App</ion-card-title> </ion-card-header><ion-card-content>
- ◆ <ion-item><ion-button color="primary" (click)=“LoginTs()” slot="start"> Login</ion-button>
- ◆ <ion-button color="primary" (click)=“SignupTs()”>SignUp</ion-button> </ion-item>
- </ion-card-content></ion-card>

# The Page.ts File

```
import {NavController} from '@ionic/angular'
constructor(public navCtrl: NavController) { }
loginTs(){ this.navCtrl.navigateForward('loginpage')}
signupTs(){ this.navCtrl.navigateForward('signuppage') }
}
```

# Adding New Page

- ❖ Open your Terminal (command Line) and type:
- ❖ Enter the following command:
- ❖ **ionic generate <type> <name> [options]**
- ❖ **ionic generate page contact**
- ❖ ionic generate component contact/form
- ❖ ionic generate service api/user

# Form

## Page.ts

```
export class Tab1Page { todo = {}  
logForm() {  
  console.log(this.todo)  
}
```

## Page.html

- ❖ <form (ngSubmit)="logForm()">
- ❖ <ion-item><ion-label>Todo</ion-label>

## Form contd.

- ◊ <ion-input type="text" [(ngModel)]="todo.title" name="title"></ion-input></ion-item> <ion-item>
- ◊ <ion-label>Description</ion-label>
- ◊     <ion-textarea [(ngModel)]="todo.description" name="description"></ion-textarea>
- ◊     </ion-item>
- ◊ <ion-button type="submit" block>Add Todo</button>
- ◊ </form>

# components

```
<ion-input type="email" ></ion-input>
<ion-icon name="cart"> </ion-icon>
<ion-item>
  <ion-icon name="pin" slot="start"> </ion-icon>
  <ion-label>ion-item in a card</ion-label>
  <ion-button fill="outline" slot="end">View</ion-button>
</ion-item>
```

# Component contd.

```
<ion-card-header>  
<ion-card-subtitle>Card Subtitle</ion-card-subtitle>  
<ion-card-title>Card Title</ion-card-title>  
</ion-card-header>  
<ion-card-content>  
  CodeSpace is the best of all trainer. I met them in startup south.  
  Ionic is a hybrid platform. I'll continue to learn it.,  
</ion-card-content>  
◆ </ion-card>
```

```
<ion-item> <ion-label position="floating">Floating Label</ion-label>
<ion-input></ion-input> </ion-item>
```

```
<ion-item><ion-label>Gender</ion-label>
  <ion-select value="male" okText="Okay" cancelText="Dismiss">
    <ion-select-option value="male">Male</ion-select-option>
    <ion-select-option value="female">Female</ion-select-option>
  </ion-select></ion-item>
```

```
<ion-button expand="full" fill="outline" shape="round"> end
</ion-button><ion-button><ion-icon slot="start" name="star">
</ion-icon> Left Icon</ion-button>
```

# **Deploying the App**

To deploy your app like a traditional native app, to a physical device or a emulator/simulator, use the ionic Cordova run or emulate commands:

**npm i -g native-run**

**ionic cordova run**

**ionic cordova emulate**

# Alternative Deployment

- ◊ open up your app project directly in Xcode or Android Studio. To do this for iOS, open platforms/ios/YOURPROJECT.xcodeproj.
- ◊ For Android, you'll need to open Android Studio and then import the platforms/android folder as an existing gradle project

# Q/A SESSION

❖ Ask me anything #AMA

# Conclusion

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