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# Android Studio, React Native & Ionic

Ionic offers complete SDK to build hybrid apps, while the goal of React Native is to leverage “learn once, write anywhere” theory. React Native adopts the native behavior and standards of the platforms and hence, gives seamless native experience. Here, the advantage is that it gives a complete focus on user interfaces with the help of native UI components.

**Android studio** allows to **run** the **react native** app in an emulator to test the app. To **run** the **react native** app in emulator you require to setup the ANDROID_HOME environment variable to Computer → Advanced System Settings → Environment variables → New, then enter the path to your **Android SDK**.

As React Native delivers an experience as close as to native, developers who are obsessed with native-feeling, choose React Native over Ionic. Since it aims to provide closer native appearance, you need to modify some platform-specific component.

React is a more stable framework and also ideal for large-scale applications. It is intended to provide great performance and responsiveness which requires a comparatively higher budget.

The key thing about React Native is that it’s still in development and we are yet to see its full potential. In the future, it may be more powerful and efficient and allow for even more use cases, but for now it cannot fully replace native mobile development. However, its *write once, use everywhere* paradigm can be a tremendous time and money saver if used on the right projects.

## Why Is Ionic So Popular? What Are The Strengths?

- Ionic is a free and open-source
- Easy to learn with built-in components
- Clear and updated documentation
- Build apps for iOS, Android, Windows, Desktop, Web, and PWA
- Rich pre-styled components and great community support
- Rapid development testing cycle

## Drawbacks of Using Ionic:

- It has performance lags
- You need to use Apache Cordova plugins to access device's hardware functionality
- It uses WebView to deliver a native-like experience

## The Advantages Of React Native:

- Maximum code reusability to develop apps for Android, iOS, and Windows platforms
- Stable and maintained platform to develop large projects
- Rapid development with the efficient code structure
- Wide community and platform-independent code

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## The Challenges of React Native:

- There is a need for native development skills
- Lack of custom modules
- As it is backed by Facebook, you need to follow licensing rules