



**COMSATS UNIVERSITY ISLAMABAD  
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## **MAD**

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# **REPORT**

## **A Comparison of Native and Cross Platform Mobile App Development**

The term native app development refers to building a mobile app exclusively for a single platform. The app is built with programming languages and tools that are specific to a single platform. For example, you can develop a native Android app with Java or Kotlin and choose Swift and Objective-C for iOS apps. But it is costly as compared to cross-platform development while for Cross-platform development it points to the process of creating an app that works on several platforms. This is done by using tools like React Native, Xamarin, and Flutter, where the apps created can be deployed on both Android and iOS.

## **Different Scenarios where each native and cross platform mobile app development is preferred**

In Cross-platform while making the app we just have to create the same code for the both Android and IOS because single code can run on both devices so instead of creating two team for the one App we can have only one team that write the code for the App that will run on the both Android and IOS so it is less costly as compared to Native Mobile App ,

While In Native Mobile App We need two team for one app that will run on both Android and IOS devices , it is costly as compared to Cross-platform, but the performance will be better as compared to Cross-Platform

So if we need better performance we have to go with Native-platform and if we want to make app in the less cost we should go for Cross-Platform

## **list of framework/tech stack for cross platform application development**

- **React Native**

It is a framework built on JavaScript and is used to write real code and give the native-like feel to mobile applications that work both on Android and iOS.

- **Flutter**

Google introduced an impressive cross-platform app framework named Flutter back in 2017. Flutter offers apps that easily and effectively run on multiple platforms with uniformity and dynamicity.

- **Native Script**

Native Script passes as an amazing free cross-platform framework based on JavaScript. Native Script also offers all native APIs, rendering an ability to the developers to reuse existing plugins straight from NPM into the projects.

- **Node.js**

it is an incredible framework for developing cross-platform apps. Essentially, Node.js is a JavaScript runtime framework built on the Chrome V8 JavaScript engine. The framework is capable of handling several concurrent connections together

- **Ionic**

Ionic is one of the most remarkable and popular cross-platform app frameworks, based on Angular Js. It allows developers to use a combination of top programming language

- **Xamarin**

It is a streamlined framework used for developing apps for Android, Windows, and iOS with the help of C# and .Net, instead of JS libraries and HTML.