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**Date 2ND OCTOBER 2022**

**Assignment no. 01**

**A comparison of Native and Cross Platform mobile app development:**

**Native APP Development:**

A native app is one that is built for a specific platform, such as iPhone or Android, using their code libraries and accessing their available hardware features (camera, GPS, etc).

Native apps are known to deliver exceptional user experience as they are generally high performance. User experience is also enhanced as the visuals are tailored to the platform UX. However, startups are concerned about the high cost of native app development as they need to run concurrent development for both platforms. Its pros are broad functionality, increased scalability, and better support product while cons are costly and time consuming .

**Cross-platform App Development:**

Cross-platform apps:

The work on Cross-platform apps includes the creation of the code base in which the application is intended to be used on Android and iOS. Instead of having two teams of developers, you will only need one to create a cross-platform app. Therefore, you will save on the cost of development. It only takes one round of development to create an app that can be used on multiple platforms. while the app is created with a single layer tool, only one code base is created. It cannot be used by interactive users using special UX. Therefore, it is not possible to provide the UX experience that is common on the platform.

Native platform apps:

This is different from traditional app development where different teams work on a version of an app for any platform with different development processes. it's the same. A native language is easier to publish and is often ranked higher on the platform's marketplace because of better performance and speed. Programs built for native environments tend to be more user-friendly, thanks to flexibility in resource management and the many tools available. are available. Direct connections between the code and the underlying resources provide maximum performance. Also, custom apps tend to have a better UX in common with the platform.

**Different scenarios where each native and cross platform mobile app development is preferred:**

You should choose native development if Your application requires full access to all of the phone resources and services. You want to build the most responsive application .You're looking to take full advantage of the mobile phone's hardware .You want an app that can be easily updated and enhanced with new features in the future.

You should choose Cross-Platform development if You are ready to accept a less responsive app .The application does not involve complex animation nor deal with complicated logic .You have a short window to test an idea and hypothesis in the app market. In some projects, you’ll want to get an MVP app up as soon as possible. This is where you’ll want to consider cross-platform development. You don’t have to work on two versions of the app. Instead, only a single cycle of development is needed for an app to be released for Android and iOS.

**List of frameworks/Tech Stack for cross platform mobile Application development:**

1 Ionic :  It allows developers to use a combination of top

programming languages i.e., HTML5, JavaScript, and CSS and

Cordova wrapper to access native platform controllers.

2. 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.

3 Flutter:  is a software development kit designed to assist in the expeditious Android and iOS app development. It is also a fundamental and primary method for developing Google apps.

4 Xamarin:  It is a streamlined framework used for developing apps for Android, Windows, and iOS with the help of C# and .Net.