

**SP20-BCS-037**

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**THEORY ASSIGNMENT # 01**

**REPORT**

**Comparison of Native and Cross mobile app development**.

Native development:

It relies on tools and programming languages designed specifically for one platform. They are originally for device and operating system. When creating native applications, developers are guided by specific operating system requirements. Installed on a computer, a native app can fully use the available features and capabilities.

The draw back is that a native application is not compatible with other platforms. To reached wider audiences, you would need to develop several solutions, which is time consuming and cost-intensive.

For example:

Objective-C and Swift are used for IOS applications,

Java, C/C++ and Kotlin help created Android solutions.

Cross-platform development:

Aims at creating a single app that runs identically on several platforms. It uses platform-agnostic technologies such as HTML and CSS and help business cover many end devices at lower costs.

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

If you should choose Native development:

1. Your app requires full access to all phone resources and services.
2. You want to build the most responsive application.
3. You’re looking to take full advantage of the mobile phone’s hardware.
4. You want an application that can be easily updated and enhanced with new features in feature.

If you should choose Cross-platform development:

1. You are ready to accept a less responsive application.
2. The application dose not involve complex animation and not deal with complicated logic.
3. You have a short window to test an idea and hypothesis in application market.
4. It is easy and quick to build, but it take more effort to deliver an equivalent user experience on the platform.
5. If you are develop an application that is just displaying information fetched from the network, cross-platform development will be a good choice.

**3: List of framework/Tech Stack for cross platform mobile application development:**

1. React Native
2. Ionic
3. Xamarin
4. Flutter
5. Native Script
6. Appcelerator Titanium
7. Kotlin
8. Angular
9. React
10. Unity