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# **REG NO SP20-BCS-027**

# **SUBJECT MAD**

# **Assignment No. 1**

## Submission Instructions:

1. Due date for submitting your assignment on GitHub repo is 2nd October 2022 11:59 PM.
2. Due date for submitting hard copy of assignment is 3rd October 2022 1:00 PM.
3. Plagiarized reports will get **NO credits** for assignment submission.

Explore the different frameworks/Tech Stacks available for cross platform mobile application development. Prepare a report that include following:

1. **A comparison of Native and Cross Platform mobile app development**.

**NATIVE MOBILE APPICATION**

Native mobile application are used for developing mobile apps. Java or kotlin languages are use to write code. For iOS application you use Objective-C or swift programming language. Google Map, Spotify and Whatsapp are the example of Native mobile application. Native mobile development required an IDE for OS specific software. For Android you use Android Studio or IntelliJ IDEA.

PRONS

* **Better performance**
* **Tight security**
* **Quality UX**
* **Full features set access**
* **Minimal bugs**

CONS

* **Native mobile applications are usually costly**
* **Development time: separate teams working on similar app for separate platform takes time**
* **Lake of code reusability: create and keep code in separate projects for different mobile operation system**

**Cross-platform mobile application**

The goal of cross-platform to target different OS with one code. This enables you to access the different platform SDKs and libraries. Examples of different cross platform are React Native by Meta, Flutter by Google and Xamarin by Microsoft.

Instagram, skype, google adds, fox sports are the examples of cross platform.

PRONS

* **Low cost**
* **Code Reusability**
* **Rapid development**
* **Easier maintenance**

CONS

* **Larger digital foot print**
* **Difficult integrations**
* **Lower performance**
* **Delayed platform features**

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

You want to ship early product and start getting quality feedback from user you can use cross platform applications development.

Native mobile development is time consuming and harder to maintain.

For higher security native mobile development would be the best it provide many built in security features.

Cross platform mobile app development is ideal for getting the app to market faster.

Those apps that accelerated faster performance native mobile development is often the best fit. Cross platform in this scenario required extra effort and native app expertise.

For lower budget you have to choose cross platform mobile development this allows you to keep costs in check by reusing your code and projects.

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

* **React Native**
* **Flutter**
* **Xamarin**
* **Native Script**
* **Node.js**
* **Appcelerator Titanium**