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**COMSATS UNIVERSITY ISLAMABAD ATTOCK CAMPUS**

**Assignment no:1**

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**Course: Mobile Application Development**

**Question 1**

**NATIVE**

* The goal of native app development is to create a mobile application for a single platform.
* Because they are typically high-performing, native apps are renowned for providing the greatest and highest user experience.
* Due to the aesthetics' compatibility with the platform's UX, the user experience is also improved.
* It has a wide range of functions.
* Publishing a native app is simpler.
* The scalability of natively developed apps is another advantage.
* When you need to launch for both iOS and Android, building native apps can be expensive.
* Developing native apps takes time since work done for one platform cannot be repeated for another.

**CROSS-PLATFORM**

* Cross-platform development is the process of making an app that is compatible with several platforms.
* Cross-platform programming reduces costs and saves time, but quality suffers.
* Cross-Platform is less expensive because just one team is required.
* A single development cycle is sufficient to produce an app that works across many platforms.
* There is just one code base.
* The cross-platform application is slower than its native counterpart due to the requirement for an additional abstraction layer and rendering procedure.
* It's only partially functional.
* The UX is Limited.

**Question 2**

**SCENARIO NO. 1:** Native development should be employed if an app requires access to low-level APIs or involves a lot of processing. Additionally, cross-platform development will be a wise decision if an app is only intended to display information fetched from the network.

**SCENARIO NO. 2:** Cross-platform development should be used if your budget is tight. due to Native's high price.

**SCENARIO NO. 3:** In some projects, you'll want to launch an MVP app right away. Here is where cross-platform development should be considered. There is no need to develop two versions of the app. Instead, an app may be published for both Android and iOS after just one cycle of development.

**Scenario No. 4:** Native development is the best option if you want outstanding visuals and an engaging user experience. When working in a native environment, developers can access UI/UX components. Cross-platform will significantly restrict the UI/UX of the app.

**Question 3**

**List of frameworks/tech stack for cross-platform mobile application development:**

* React Native
* Ionic
* Xamarin
* PhoneGap
* Flutter