******

***MAD Theory***

***Assignment # 01***

***Submitted To:***

***SIR Kamran Khan.***

***Submitted By:***

***Syeda Shehar Bano.***

***Reg No:***

***SP20-BCS-049***

***Dated:***

***3rd Oct, 2022.***

**Question NO 1** :

Comparison of **Native** and **Cross platform** Mobile app Development.

* **Native Mobile Development:**

**Native** development basically refers to that app which is made for some specific Operating System i.e. Android, Mac, iOS. It makes apps for single platform. Native apps are known to deliver exceptional user experience as they are generally high performance. It has Broad functionality, Better User experience increased Scalability, Higher Performance and great UX. But it costly when you come to launch app for both Android and iOS. It is time consuming because work done for platform cannot be used for other, so the other team needed to do this.

* **Cross Mobile Development:**

**Cross** Mobile development is used for creating apps which works on several platforms. This is done by using tools like Flutter and React Native. Using Cross Native Development You can save cost and time but you risk your Quality. Startups will favor the reduction in time and cost with cross-platform development. However, you’ll need to bear in mind that it might be more difficult to customize the app beyond what’s allowed in the framework. it is single code base but slower app and less Functionality.

* **Comparison B/T Both:**

The choice of going with either depends on project requirements and the skills of the developer involved. Select Cross development if less response of app is acceptable and not the complex logic are involved. Native apps are still the best choice when it comes to user experience and performance. While they are more costly, you’ll be at ease with lower defect rates and better visuals.

**Question no 2:**

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

Cross-platform apps are often plagued with performance issues. But do you find performance of cross-platform apps like Facebook, Myntra poor? Hardly!  
In reality, cross-platform apps are comparatively slower than the native ones.

Relatively low as it gets difficult for developers and designers to cater to all the UX requirements of multiple platforms in a single app. Moreover, an attempt to enhance UX often hampers speed.

Native platform refers high cost of development since it requires building more than one app if you wish to distribute your products or services to multiple platforms.  
Maintenance is equally time-consuming and costly.

Native apps are developed in platform specific language. For instance, Objective C and Swift for iOS, while Java or Kotlin for Android.

If you want a reliable app with fantastic performance, no budget and time constraint, and targeted to only Android or iOS user base, choosing native over cross-platform development would be like hitting the bull’s eye.

On the other hand, if you want to develop apps which focus on a broader user base and are developed in the most cost & time effective way, cross-platform apps would be best bet.

 We realize that every business has its unique set of requirements to address its challenges. This is why we offer services to our clients in various technologies, including native and cross-platform, to build the perfect mobile application, tailor-made for their enterprise.

**Question no 3:**

List of Frameworks/tech stack for cross platform mobile Application development.

**List of Frameworks**

1. Ionic
2. React Native
3. Flutter
4. Xamarine
5. NativeScript
6. Node js
7. Appcelerator Titanium
8. PhoneGap
9. Sencha touch
10. Corona **SDK**

**THE END**