

**COMSATS UNIVERSITY ISLAMABAD**

**ATTOCK CAMPUS**

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PROGRAM: **BS (SE)-VI**

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**THEORY ASSIGNMENT# 01**

**Question:1**

**A comparison of native and cross platform mobile app development.**

**Native Mobile Development:**

Native mobile development is used for build apps for particular OS like iOS, android etc. and each of OS have different specific design language,integrated development environment and guidelines.

**Pros:**

Using native mobile development features helps applications with higher performance and user experience. Visual enhancement is better because of Native mobile Development.

**Cons:**

It take much time due to higher time spent on separate coding of two particular apps. As iOS and android are two different OS and used in two different mobiles so it is difficult to maintain development cost because of difference in environment i.e programming language and more.

**Cross Platform Mobile Development:**

Cross-platform development involves using a single source code across platforms. The code base is combined with the OS runtimes for execution. So these environments interpret the application code at runtime and execute it. Application source code is platform-independent, while the environment is platform-dependent.

**Pros:**

Reduce time because we need code once for the app.it allows flexibility of quicker changes.easy to maintain and update applications.

**Cons:**

Performance support is low due to hardware sensor integration and poor user experience due to lack of native user interface enhancement.

**Question:2**

**Different Scenarios where each native and cross platform mobile app development is preffered.**

**The type and purpose of our future app:**

One of the first steps is to understand what application you will be building, including its features and purpose. A complex application with many features will require a lot of programming, especially if it is something new that has no existing templates.

**Adoption in the industry:**

We can always find out what other experts in the technology community have to say about different approaches. Reddit, StackOverflow, and Google Trends are a few good resources. Just look at the search trends for the following two terms: “native mobile development” versus “cross-platform mobile development”. Many users are still interested in learning about native app development, but the cross-platform approach also seems to be gaining in popularity.

**Long term viability:**

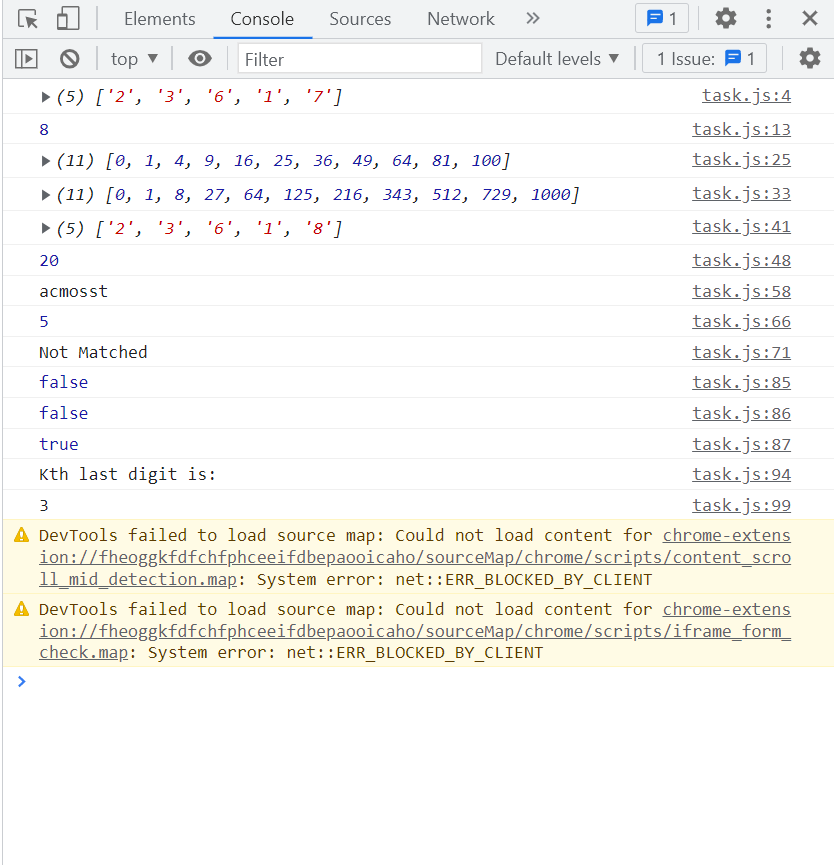
while choosing among specific strategies and frameworks, you want to be confident that the platform seller will retain assisting it over the long time. you can dig into the details about the provider, the size of their community, and adoption through worldwide groups. for example, Kotlin Multiplatform cellular become evolved by using JetBrains, Flutter through Google, and React local via facebook.

**Question:3**

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

* Flutter
* React Native
* Cordova
* Xamarin
* Firebase
* Native Script
* Ionic

**LAB ASSIGNMENT OUTPUT:**

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