

## **Task 1: Environmental Setup**

**Answer:** I have done the setup

## **Task 2: Research**

### **Q. What is a transcompiler?**

**Answer:** A transcompiler is a type compiler which takes input in a particular programming language which is called as source code and gives the processed output either in the recent version of the same programming language or in another programming language.

For example : Emscripten which is a well known transcompiler which converts C or C++ codes complied with the help of Low Level Virtual Machine into JavaScript.

### **Q. What is the difference between Native, Hybrid and Transpiled approaches for Mobile Development?**

**Answer:** We have different approaches for the mobile development and to follow the best approach one should think about time, complexity and resources for the application development.

Native approach is a better solution for the application with complex features, sophistication, security, maintenance, better user interface, suitable for single platform and performance.

Hybrid approach is better solution for the application with less cost of development, less time for development, can update easily as applications store files are available on the server and suitable for multiple platforms.

Transpiled approaches is another approach where the Typescript type language such as Coffeescript can be transpiled to the native Javascript and it is a very evolutionary approach as it provides coding flexibility to the developer.

### **Q. What is a bridge (in React Native)?**

**Answer:** React Native produces an interactive bridge between JavaScript Language and Native Language hence, for any such interaction react native is essential. So, for reusing any

present Java library we can use react native as a bridge and it is useful to build production level applications where one can use react native bridge.

**Q. Why do we develop for mobile platforms? What are some reasons you think we've done this, especially since computers already exist and are considered accessible for many?**

*Feel free to argue against the question or disagree - simply just make a few points why you think mobile development from off in our world*

**Answer:** In today's we have different types of mobile application available such as social media apps, gaming apps, retail apps.

Agree: From the prospective of businesses it is very revolutionary because it increases the visibility of the products to the customer, provides a marketing platform for the businesses and customer can query easily through customer assistanceship available in the application. It also helps businesses to stand out in the competitive world and enhances customer engagement helps in building customer relationship and brand building. For customers this app. provides more options, availability which is helpful to them to find the brand of their choice.

Disagree: Though we have many benefits but even it takes a lot of money for businesses to develop mobile application. Apart from that sometimes mobile app doesn't fulfil all the requirement of the customers.

Agree: There are other benefits of apps like while travelling one can chat to their friends, watch videos, read e-books, play games. The whole idea is that with the mobile apps all these facilities are more and easily available and even we don't need computers because mobile is easy to access and more available.

Disagree: Many times people don't want to pay for the app and it is hard to create any mobile application because it requires being compatible to work on different platforms. Even it is not great for healthy lifestyle because it sometimes increase screen time of an individual.

Thus, mobile application is useful but it has its own pros and cons.

**Q. Why do we write our React Native code in JSX? What is JSX as well?**

**Answer:** JSX stands for JavaScript XML and it provides a facility to write or add HTML in React, thus it is just a React extension in the syntax of the JavaScript language.

Thus, with the help of JSX HTML tags can be changed to React elements and it provides easy way of writing React applications.

For example:

```
const user = 'Alice Jenner';
```

```
const greetings = <h1>Hello, {user}!!</h1>;
```

Output:

Hello, Alice Jenner!!

**Q. Why do we create components? What's the point? Why not just create the entire code logic in one file instead of what are effectively mini lego parts we're combining together?**

**Answer:** Components which are blueprints of our creation are similar to the functions that we write in other programming language to execute a particular piece of functionality. In React it returns HTML page and like function one can reuse this code again and again and it works independently. For examples creating a button, search bar, tables.

The point of creating components is that the code is reusable and code is encapsulated.

The logic to create reusable components which are independent building blocks like lego and not creating the whole code in one line is that it avoids complexity of the code and increases the speed and efficiency of JavaScript and thus web application build on this model are more responsive and dynamic. Therefore, the whole idea is to make code reusable and encapsulated (easy to debug).