1. **System Requirements**

To ensure a smooth development experience with React Native, the following system specifications are recommended:

CPU: Multi-core processor with a clock speed of 2.0 GHz or higher.

RAM: Minimum 8GB, recommended 16GB

Operating System: Windows 10 or later.

1. **Installation Instructions**

**Install Node.js:**

Download the latest LTS version of Node.js from https://nodejs.org/.

Follow the installation wizard to install Node.js on your machine.

Verify the installation by opening a command prompt and running:

node -v

npm -v

**Install React Native CLI:**

Once Node.js and npm are installed, open a command prompt and run:

npm install -g react-native-cli

**Set up Android Development Environment:**

Download and install Android Studio from https://developer.android.com/studio.

During installation, ensure the Android SDK, Android SDK Platform, and Android Virtual Device are selected.

Once installed, open Android Studio and navigate to Configure > SDK Manager and ensure an appropriate API level (e.g., 29 or above) is installed.

1. **Configuration Steps**

**Set Environment Variables:**

Add the path to your Android SDK platform-tools to your system's PATH variable. This is typically located in C:\Users\<username>\AppData\Local\Android\sdk\platform-tools.

Ensure that the JAVA\_HOME environment variable is set to the path of your JDK installation (usually C:\Program Files\Android\Android Studio\jre).

**Configure Android Emulator:**

Open Android Studio and navigate to Tools > AVD Manager.

Click on Create Virtual Device and follow the prompts to set up an Android emulator.

1. **Project Creation**

Open a command prompt and navigate to the directory where you want to create your project.

Run the following command, replacing MyApp with your desired project name:

react-native init MyApp

1. **Running the Project on an Android Device Simulator**

Ensure your Android emulator is running. If not, launch it from the Android Studio AVD Manager.

Navigate to your project directory in the command prompt.

Run the following command:

react-native run-android

1. **Troubleshooting**

**Unable to run project on Android emulator:** Ensure that the emulator is running and that the adb command is available in your system's PATH.

**Error messages related to dependencies:** Sometimes, you might need to clean the project and install dependencies again. Navigate to your project directory and run:

npm install

react-native run-android

**Debugging**: Use the built-in React Native debugger by shaking the emulator window and selecting Debug JS Remotely. This will open a debugging session in your default browser.

1. **Resources**

Official Documentation: https://reactnative.dev/docs/getting-started

Tutorials:

<https://reactnative.dev/docs/tutorial>

<https://www.kodeco.com/485-react-native-tutorial-building-ios-android-apps-with-javascript>

Stack Overflow: https://stackoverflow.com/questions/tagged/react-native