React Native Development Documentation

**System Requirements**

Ensure that your development system meets the following specifications:

* CPU: Android Studio recommend anything better than a 2nd generation Intel processor
* RAM Size: Android Studio recommend at least 8GB of RAM
* Windows Version: Compatible with the React Native version you're using (usually windows 10 or anything newer)

**Installation Instructions**

Follow these step-by-step instructions to set up the necessary tools and dependencies:

1. **Node.js:**
   * Install Node.js, preferably using Chocolatey for Windows.
   * Recommended to use an LTS version.
   * No need to install chocolatey.
2. **Android Studio:**
   * Download and install Android Studio from the teams files or from their website.
   * Ensure necessary components like Android SDK, Android API 34, Performance (Intel HAMX), Performance (Android Emulator hypervisor driver), and Android Virtual Device are selected during installation.

**Configuration Steps**

1. **Configure Android Studio:**
   * Open Android Studio's SDK Manager, ensure Android 34 API selected.
   * In SDK Tools, make sure Android SDK Build-Tools 34, Android Emulator, Intel x86 Emulator Accelerator
   * Then click show package details and ensure that Android SDK Platform 34 is selected.
   * Then go to virtual device manager and press create device if you don’t have one already.
     1. Install your desired device with the R system image.
2. **Environment Variables:**
   * Navigate to your control panel and go to user account and click on change environment variables.
   * Click on new and add the **ANDROID\_HOME** environment variable pointing to the Android SDK path (you can find this path in the settings of Android Studio)
   * In the same menu, go to the Path variable and click edit it to add the **platform-tools** path which should point to the platform-tools file in the Android SDK file.

**Project Creation**

1. Create a new project folder that is outside of OneDrive
2. Go to the address bar of the folder and enter cmd
3. Then run this command npx react-native@latest init YourProjectName
   1. Replace YourProjectName with your desired project name.
   2. If your npm is out of date you can run npm install -g npm

**Running the Project**

In Android Studio, go to open a project and find the folder where you created your project and open the android file. After it is done loading, under build press Make Project. After the build succeeds, go to run, and run the app. You will get an error here but to resolve it open cmd in your project folder and run the command npm run start, then reload the app. The app should now be running.

**Troubleshooting:**

Error no matching variant of project: gradle-plugin was found.

To fix this error you must check the path in your user and system environment variables for jdk's. Delete them and add in the PATH the Android Studio jdk in your system environment variables. this jdk will be in your Android Studio folder and you want to select the bin folder that is in the jbr folder.

For other issue with react native you can try using react native doctor. you can do this by opening cmd in your project folder. Then running the command npx react-native doctor. It will try to find the issue and then you can press f and it will try to fix it.

**Resources**

Explore additional resources and documentation for further learning:

* [React Native Documentation](https://reactnative.dev/docs/getting-started)
* [Android Studio Documentation](https://developer.android.com/docs)