Lab Assignment 1: Spinning Up React Native App

# Ko Kawaguchi

# 395753

# Jan 24, 2024

## System Requirements

The system being used for React Native development has the following specifications:

OS: Windows 11 Pro, version 10.0.22621

CPU: 11th Gen Intel i7-1185G7

RAM: 32.0 GB

## Installation Instructions

1. Install Node LTS: <https://nodejs.org/en/download>
   1. If Node already installed, ensure it’s the most recent version by running the following in Terminal/PowerShell: node -v
2. Install JDK 17: <https://www.oracle.com/java/technologies/downloads/#jdk17-windows>
   1. If JDK already installed, ensure it’s the most recent version by running the following in Terminal/PowerShell: java -version
   2. If multiple JDK are installed, you may be required to change the PATH by following this guide: https://www.geeksforgeeks.org/how-to-install-multiple-jdks-in-windows/
3. Install Android Studio: <https://developer.android.com/studio/index.html>
   1. Follow the Wizard guide as well as the React reference site note above
   2. Install Android SDK using the React reference site

## Configuration Steps

1. Ensure the correct versions of Node and Java are setup on PATH by following steps 1 and 2 from the installation instructions above
2. To configure the correct Android environment variable:
   1. Windows search > edit system environment variables > Environment Variables > New… >
      1. name: ANDROID\_HOME
      2. value: [path to Android SDK on your machine]
   2. If the environment variable is correctly configured, when you paste the following into PowerShell you should see the path value for ANDROID\_HOME as the path you’ve entered: **Get-ChildItem -Path Env:\**
   3. **Edit the Path variable (under User variables for [username]) to add the path for platform-tools**
      1. **Find this folder path under where you’ve installed Android Studio**

## Project Creation

1. Ensure any previously installed react-native-cli packages are removed
   1. Check for installs by entering the following command: npm list –g
   2. If packages exits, uninstall by the following command: npm uninstall -g react-native-cli @react-native-community/cli
2. Create a new project by entering the following command in the path of your choosing: npx react-native@latest init [your project name]

## Running the Project

1. Open the project you’ve created from step 2 above with Android Studio
   1. Open the file with the Android logo
2. Create a new virtual device by clicking the + from the Device Manager icon on the right hand side of the application:

A screenshot of a computer

Description automatically generated

Figure : Add a new virtual device

1. Open the project folder in VS Code
2. Use the terminal in VS Code, ensure path is set to the folder open, type the following:

npm start

1. In another terminal window type:

npm run android

1. This will open the android emulator. If your app doesn’t show on the screen, go back to the terminal window where you ran “npm start” and press “r” to refresh
2. Once finished, press ctrl-c in the above terminal to stop the npm running

## Troubleshooting

Installing HAXM is not supported on Windows 11. If on a Windows 11 device, the following support on github is useful to review: https://github.com/intel/haxm/issues/412

If errors occurring when trying to install HAXM, ensuring Hyper-V is checked on (if available on your device) may be sufficient for the emulator to run.

To check for Hyper-V:

Windows search > “Turn Windows features on or off” > Ensure Hyper-V checked:

A screenshot of a computer screen

Description automatically generated

Figure 2: Hyper-V

## Resources

Overview of install provided by course: https://reactnative.dev/docs/environment-setup?guide=native

Changing PATH for Java: https://www.java.com/en/download/help/path.html

## GitHub Link

https://github.com/kokawaguchi/KoToDo.git