**Lab Assignment 1: Spinning Up React Native App**

**System requirements:**

CPU: 2.0 GHz dual-core processor or better

RAM: 8 GB or more

Operating System: Windows 10 or newer

**System being used:**

CPU: 11th Gen Intel(R) Core(TM) i7-11800H @ 2.30GHz

RAM: 32.0 GB

Windows version: Windows 11 Pro 22H2

**Installation instructions:**

* **Node.js:**

Download the Node.js installer from the official website: <https://nodejs.org/>

Follow the installation instructions, after that, we can check if Node.js is installed by running “node” in the Command Prompt.

* **Android Studio:**

Download and install Android Studio from the official website: <https://developer.android.com/studio>

After installation, install the necessary Android SDK packages and configure the ANDROID\_HOME environment variable.

**Configuration Steps:**

* **Environment Variables:**

Ensure the environment variables are correctly set. Set ANDROID\_HOME to your Android SDK path. We can do this by going to "Control Panel" -> "System and Security" -> "System" -> "Advanced system settings" -> "Environment Variables."

* **React Native CLI:**

Install the React Native CLI globally by running “npm install -g react-native-cli” in the Command Prompt.

**Project creation**:

* **Create a New Project:**

To create a new React Native project, open command prompt, and run “npx react-native init ProjectName”. Replace " ProjectName " with your desired app name. This will set up a new React Native project with all the necessary files and dependencies.

**Running the project**:

* **Android Device Simulator:**

To run the project in an Android simulator, open command prompt in our project folder and run “npx start”, which launches the Metro Bundler. Then we can choose “a” to run on Android simulator.

**Troubleshooting**:

* <https://reactnative.dev/docs/environment-setup#troubleshooting>

This React Native troubleshooting guide can help us if we encounter any issues.

* For debugging, we can press “Ctrl+M” on Android simulator to open Dev Menu, it provides different options including debugging.

**Resources**:

<https://reactnative.dev/docs/environment-setup>

This is the official guide for setting up your environment for React Native, including instructions for installing required tools like Node.js and Android Studio.

<https://developer.android.com/studio/install>

This is the official guide that explains how to install Android Studio.

<https://docs.npmjs.com/downloading-and-installing-node-js-and-npm>

This website covers the installation instructions of Node.js and npm on different operating systems.