Lab 1: Spinning up React Native App

**System requirements:**

RAM: 16.0 GB

Windows: Windows 11 Home, version 22H2

Processor: AMD Ryzen 7 5800H with Radeon Graphics

# Download and Install Android Studio:

1. Installation instructions:
2. Install Node.js: React Native requires Node.js to be installed on your machine, which can be installed from official website <https://nodejs.org/en>. Choose the LTS version.(Installing Java Development Kit (JDK) is optional for latest versions of Android Studio).
3. Download and install Android Studio, which includes the Android SDK, emulator, and other development tools.

A screenshot of a computer

Description automatically generated

Configure the Android environment:

We need to set up environment variables such as ANDROID\_HOME. After installing Android Studio, go to “Windows Control Panel” > “User Account” > “Change my environment variable” > “New”, to create a new ANDROID\_HOME user variable.

# Creating a new react native application:

1. Open your terminal and create a new React Native project with the following command (replace “AwesomeProject” with your desired project name.)



1. (Optional: Change app.tsx file to app.jsx file if you want to use javascript)

# Device Emulator Setup (Preparing Android device)

1. Open Android Studio and go to Virtual Device Manager.
2. Click on create device, choose Pixel 7 (for this project) for phone device.
3. For selecting a system image, choose R and download it.
4. Finish creating the device by verifying configuration and choosing portrait as startup orientation.
5. In Device Manager, choose the newly created device, and click the play button for launching emulator.

# Running your React Native application

1. In Android Studio, go to “Open” and select the “android” folder inside your react native project from the directory.
2. Go to “Build” > “Make Project”.
3. Run the application.
4. Go to the command prompt, write the query “npm run start”.

# Modifying your application:

1. To edit your application, make changes in the app.jsx file.
2. After entering “npm run start” command, choose r to reload the app to see the changes you made.

# Troubleshooting:

1. Debugging:

Utilize the developer tools provided by your chosen IDE (e.g., Visual Studio Code).

Use the React Native Debugger for enhanced debugging capabilities.

1. Common errors:

Refer to the https://reactnative.dev/docs/troubleshooting

# That’s it

Congratulations! You’ve successfully run and modified your React Native app.

# Resources:

1. Setting up the development environment

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

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