

Chapter number	Software required (With version)	Free/Proprietary	If proprietary, can code testing be performed using a trial version	If proprietary, then cost of the software	Download links to the software	Hardware specifications	OS required
1 to 11	Node.js	Free	-	-		Version 8.x, recommended 8.11.4	Mac/Linux/Windows
1 to 11	Watchman	Free	-	-	https://facebook.github.io/watchman/docs/install.html	Version 4.x, recommended 4.9.0	Mac/Linux/Windows
1 to 11	create-react-native-app	Free, BSD-3-Clause	-	-	https://github.com/react-community/create-react-native-app	Newest	Mac/Linux/Windows
1 to 11	Android Studio with emulator or XCode with iPhone emulator or real Android/iOS phone	Free (Simulators)	-	-	XCode: https://developer.apple.com/xcode/ Android Studio: https://developer.android.com/studio/	Newest	Some emulators are platform specific. At least one is available for Mac, Linux and Windows.

Setup

1. Install Git <https://git-scm.com/downloads>
2. Install Node.js 8.X.
On Linux or Mac you should use nvm.
L/M, 1.1) Install nvm <https://github.com/creationix/nvm#install-script>
L/M, 1.2) Install Node.js using nvm `$ nvm install 8.11.4`

On Windows install Node.js with executable file.
W, 1.1) Install Node.js 8.X <https://nodejs.org/en/download/>
3. Install yarn <https://yarnpkg.com/lang/en/docs/install/>
4. Install watchman <https://facebook.github.io/watchman/docs/install.html>
5. Install the create-react-native-app CLI
`$ npm install -g create-react-native-app`

Run projects

1. Open terminal
2. Download code files from GitHub repository.
GitHub repository link: <https://github.com/Ajdiya/hands-on-design-patterns-with-react-native>
Example terminal command downloading the code:

```
$ git clone git@github.com:Ajdiya/hands-on-design-patterns-with-react-native.git
```

3. Go to the example folder and install dependencies. Example folders are located in **src** directory within downloaded code files directory. You need to change directory to the specific Example directory. For instance:

```
$ cd ./src/Chapter_1_React_component_patterns/Example_1_Hello_World  
$ yarn install --pure-lockfile
```

`--pure-lockfile` is used to ensure all dependencies are installed based on the `yarn.lock` file I checked-in. You may omit it to install latest dependencies but those may include breaking changes and the build may fail.

4. Linux and Mac users should change the Node.js version to the expected one using the command `$ nvm use`.

Further steps depend on the hardware you have and the emulator you want to use.

Run on iOS emulator (If you have a MacBook)

1. Install XCode
2. Open terminal
3. If running Examples from chapter 6, 7, 8, 9, 10, 11 then you need to run the below command in terminal to bring up a local server. Navigate to the specific example directory and run in the terminal

```
$ yarn run server
```

4. Navigate to the specific example directory and run in the terminal

```
$ yarn run ios
```

If you are running Examples from chapter 10 or chapter 11 then you may also use

storybook version.

```
$ yarn run ios:storybook
```

Run on Android emulator

1. Install Java JDK
2. Install Android Studio and config Android Studio AVD emulator
3. Open emulator
4. Open terminal
5. If running Examples from chapter 6, 7, 8, 9, 10, 11 then you need to run the below command in terminal to bring up a local server. Navigate to the specific example directory and run in the terminal

```
$ yarn run server
```

Navigate to the specific example directory and run in the terminal

```
$ yarn run android
```

6. If you are running Examples from chapter 10 or chapter 11 then you may also use storybook version.

```
$ yarn run android:storybook
```

Run on a real phone

1. Install Expo
Installation guide:
<https://docs.expo.io/versions/latest/introduction/installation>

You will need Expo XDE for your desktop. Also install respective iOS or Android application from the above link.

2. Open Expo XDE
Choose Open existing project... and navigate to example directory.

The build will run and feedback will be displayed on the console.

When the build finishes send yourself a link to the app. I prefer to use share

button at the top and I send myself a link in an email that I open on the device.

3. You may need to be connected to the same WiFi on the computer and a phone. Public WiFi may not work.