Getting started with REACT NATIVE

Resources for C53 - C96

# OVERVIEW & PURPOSE

This document has made to provide additional references for all the react native classes

# Content:

1. Components: Apps or games in react are made up of components, the commonly used components in our class documents are mentioned in the following links with great examples:
   1. <https://habiletechnologies.com/blog/understanding-the-basic-components-of-react-native/>
   2. <https://reactnative.dev/docs/intro-react-native-components>
   3. Video reference: <https://www.youtube.com/watch?v=_fvndEFfB7Q>
2. Props: Most components can be customized when they are created, with different parameters. These created parameters are called props, short for properties. You can search props for each of the components in their components documents
   1. <https://reactnative.dev/docs/props.html>
   2. <https://www.javatpoint.com/react-native-props>
   3. Video reference: <https://www.youtube.com/watch?v=d7bOR_UU1KI>
3. State: They are mutable, that is they can be updated in the future while the props cannot. The clear difference between them is mentioned in the the first link below:
   1. <https://www.geeksforgeeks.org/component-state-react-native/>
   2. <https://reactnative.dev/docs/state.html>
   3. Video reference: <https://www.youtube.com/watch?v=rJuKEbWYtVc>
4. Lifecycle:While building our application, we always need ways to update its components, e.g adding items to ListView dynamically. The best way to do that is to understand the concept of lifecycle:
   1. <https://medium.com/@chandinibaratam/react-native-component-lifecycle-2b647c799ecb>
   2. Video reference: <https://www.youtube.com/watch?v=Ea_sq5Zb9MI>
5. Setting up react native on a local machine: For initial classes we used an online editor called expo snack for our react native applications. But in order to run react native in local environment we need to follow the steps mentioned in the class C62 and for additional reference refer the links below:
   1. Video reference: <https://www.youtube.com/watch?v=yOAWwyp-vZ0>
6. StyleSheets: They are similar to css that we used while in HTML coding. They help us add styling to our application but at the same time keeps our code clean and easily readable. They are again a component in react native. Refer the links below for additional reference:
   1. <https://reactnative.dev/docs/stylesheet>
   2. Video reference: <https://www.youtube.com/watch?v=JlDp07xuH1k&list=PLYxzS__5yYQlHANFLwcsSzt3elIbYTG1h&index=8>
7. Database: There can be many options to create databases in react native which are clearly mentioned in our class documents. Refer the following links only for additional information:
   1. <https://www.simform.com/react-native-database-selection-guide/>
   2. <https://appinventiv.com/blog/top-react-native-databases/>
8. Navigation: It is one the very important aspect of an application, as most of the apps are made up of multiple screens. React native navigation helps us to move between different screens. There are various way in which can create such navigation Stack Navigation, Switch Navigator, Tab Navigator, Drawer Navigator etc
   1. How to use a navigation: Video reference - <https://www.youtube.com/watch?v=28Xr22XDcDg>

<https://www.youtube.com/watch?v=RyMF8WyMoZE>

* 1. Stack Navigation: <https://reactnavigation.org/docs/stack-navigator/>

Video reference: <https://www.youtube.com/watch?v=a9jSyZXYGn8>

* 1. Switch Navigation: <https://reactnavigation.org/docs/4.x/switch-navigator/> (please use in snack version 35)

Video reference:

# ACTIVITIES BASED ON WORKSHOPS:

1. Creating a **“To do list”** app: The basic objective of this app is to accept inputs from the users and show it in the format of a list. Note: this app uses the following concepts of react native: Class range: 54, 56-59, 70
   * 1. Components: View, Text, TextInput, View, TouchableOpacity, StyleSheet, ScrollView and Image
     2. State
     3. Lifecycle
2. Solution:<https://snack.expo.io/@aanchalbhatia/b02881>
3. Video reference: <https://youtu.be/1CdFk-8sfyI>

2. Creating a “Weather app using switch navigation” app: The basic objective of this app is to accept input in the form of city name and then displaying the weather of the city. Note: this app used the following concepts of react native: Class range: 54, 57, 58,84-89 ,70

i. Components: View, TextInput, Text, TouchableOpacity, StyleSheet, Image, Vector image in react native (Icons)

ii. Local database

iii. Icons

iv. Switch Navigation

1. Solution: <https://snack.expo.io/@aanchalbhatia/weatherappwithapiandicons>
2. Video reference:<https://youtu.be/wq2bcGSMf-k>

3. Creating a “Image gallery using responsive grid” app: The idea of this app is to create a picture gallery which uses a local Json file. Note: This app uses the following concepts of react native: Class range: 54, 59,85-89

I. Components: Basic components used before Flatlist, Modal, Animatable

II. Animatable packages

III. Data stored in json

IV. local database

1. Solution: <https://github.com/divyavala/photogallery/tree/master>
2. Video reference: <https://studio.youtube.com/video/9zyPiq3Kygg/edit/basic>