

Know Your Doctor!

Native App Development

Time: 60 mins

Introduction

In this class, the student/s will learn to add a carousel using React Native. Student/s will also learn to navigate to the Home screen of a doctor from the Map Screen by clicking on the map icon. Student/s will learn to customize the Bottom Tabs based on whether a doctor or patient has signed in.

New Commands Introduced

- `react-native-reanimated-carousel` A library that adds simple animated carousels to react native apps.
- `<Carousel/>` Adds a carousel to the app.
- `splice(i,j)` Deletes `j` items starting from index number `i` from a list
- `unshift("x")` Adds "x" to the beginning of a list

Vocabulary

- Carousel: A slideshow of images, videos, or webpages.

Learning Objectives

Student/s should be able to:

- **Recall** how to add a Carousel in an app.
- **Demonstrate** how to change the transitions of a carousel.
- **Explain** the use of the functions `splice()` and `unshift()`.
- **Demonstrate** the use of ternary operators to display custom tabs.

Activities

1. Class Narrative: (2 mins)

- Brief the student/s that the home screen which contains all the profile details of a doctor is ready in the app. Now we need easy access to these screens. In this class, student/s will learn to add different ways to access the profile of doctors and patients and also to customize the bottom tabs.

2. Concept Introduction Activity: (5 mins)

- Let the student/s play the explore-activity and explore the carousel and clickable map icon in the BriskMed app.
- Ask the students to sign in as a patient and as a doctor to see the different bottom tabs.
Note: Before the class starts, create profiles of a doctor and a patient so that it is easy for students to explore the activity.
- Using the slides, explain that the student/s will learn:
 - to add a carousel to the app.
 - to make the Map icon clickable and open the doctor's profile screen by clicking on it.
 - to customize the bottom tab of doctors and patients.

3. Activity 1: Add Carousel: (12 mins)

Teacher Activity: (6 mins)

- Let the students observe the different elements on the profile screen.
- Explain the structure of Home.js in which a component <DoctorCard> is added. The DoctorCard component contains all the details to know a doctor.
- Explain to the student/s how to add a Carousel component and iterate through a list within it to view the profiles of different doctors..
- Experiment with the various properties of the Carousel such as width, style, windowSize and many more.

Student Activity: (6 mins)

- Guide the student/s to add a carousel component to iterate through the list of doctors.

4. Activity 2: Navigate to Profile Screen: (12 mins)

Teacher Activity: (6 mins)

- Explain how the onPress event can be used to call a function that navigates to the profile screen of a doctor.
- Give emphasis to the fact that the selected doctor whose profile screen has to be displayed should be passed from the Map Icon to the redirectToHome() function and then to the Home screen.
- Explain the use of splice() and unshift() utility functions to move the selected doctor to the top of the list.

Note: Show the output of the teacher activity on a mobile device on which Snack Expo is installed.

Student Activity: (6 mins)

- Guide the student/s to display the profile screen of the doctor when clicking on the Map Icon.
Probing question: What is the use of the splice() function?
Expected answer: Changes the items in an array by adding, deleting or replacing existing items.

5. Activity 3: Customize the Bottom Tabs: (8 mins)

Student Activity: (8 mins)

- Guide the student/s to pass the userType to the bottom tabs. Explain how a ternary operator can be used to check the user type and display the Home and Map tabs for a patient and the Calendar tab for a doctor. The Profile Tab will be displayed for both doctors as well as for patients.

6. Introduce the Post class project: (2 min)

- Add a carousel and customize the bottom tabs for the Campus Security app.

7. Test and Summarize the class learnings: (5 mins)

- Check for understanding through quizzes and summarize learning after respective missions.
- Summarize the overall class learning towards the end of the class.

8. Additional activities:

- Encourage the student/s to change carousel settings to make it look and work differently.
- Encourage the student/s to add a location button to a carousel that takes the user to the doctor's location on the map

9. State the Next Class Objective: (1 min)

- In the next class, student/s will learn to add features that would enable a patient to book an appointment with a doctor.

U.S. Standards:

CSTA: 2-AP-11, 2-AP-12, 2-AP-13, 2-AP-14, 2-AP-19

Links Table		
Activity	Activity Name	Link
Class Presentation	Know Your Doctor	https://s3-whjr-curriculum-uploads.whjr.online/7b2272ae-f9d6-4ee7-949d-f824d9434e18.html
Explore Activity	Know Your Doctor	https://snack.expo.dev/@procodingclass/wad-402-c60-sa3-customize-the-bottom-tabs---solution?platform=web
Teacher Activity 1	Add Carousel	https://snack.expo.dev/@procodingclass/wad-402-c60-ta1-add-carousel?platform=web
Teacher Activity 1 Solution	Add Carousel - Solution	https://snack.expo.dev/@procodingclass/wad-402-c60-ta1-add-carousel---solution?platform=web
Student Activity 1	Add Carousel	https://snack.expo.dev/@procodingclass/wad-402-c60-sa1-add-carousel?platform=web
Teacher Reference: Student Activity 1 Solution	Add Carousel - Solution	https://snack.expo.dev/@procodingclass/wad-402-c60-sa1-add-carousel---solution?platform=web
Teacher Activity 2	Navigate to Home Screen	https://snack.expo.dev/@procodingclass/wad-402-c60-ta2-navigate-to-home-screen?platform=web
Teacher Activity 2 Solution	Navigate to Home Screen - Solution	https://snack.expo.dev/@procodingclass/wad-402-c60-ta2-navigate-to-home-screen---solution?platform=web

Student Activity 2	Navigate to Home Screen	https://snack.expo.dev/@procodingclass/wad-402-c60-sa2-navigate-to-home-screen?platform=web
Teacher Reference: Student Activity 2 Solution	Navigate to Home Screen - Solution	https://snack.expo.dev/@procodingclass/wad-402-c60-sa2-navigate-to-home-screen---solution?platform=web
Student Activity 3	Customize the Bottom Tabs	https://snack.expo.dev/@procodingclass/wad-402-c60-sa3-customize-the-bottom-tabs?platform=web
Teacher Reference: Student Activity 3 Solution	Customize the Bottom Tabs - Solution	https://snack.expo.dev/@procodingclass/wad-402-c60-sa3-customize-the-bottom-tabs---solution?platform=web
Student's Additional Activity 1	Change Carousel Settings	https://snack.expo.dev/@procodingclass/wad-402-c60-aa1-customize-the-carousel?platform=web
Teacher Reference: Student's Additional Activity 1 Solution	Change Carousel Settings - Solution	https://snack.expo.dev/@procodingclass/wad-402-c60-aa1-customize-the-carousel---solution?platform=web
Student's Additional Activity 2	Locate a Doctor	https://snack.expo.dev/@procodingclass/wad-402-c60-aa2-locate-the-doctor?platform=web
Teacher Reference: Student's Additional Activity 2 Solution	Locate a Doctor - Solution	https://snack.expo.dev/@procodingclass/wad-402-c60-aa2-locate-the-doctor---solution?platform=web
Post Class Project	Create a Carousel and Customize the Bottom Tabs	https://snack.expo.dev/@procodingclass/wad-402-c60-pcp-add-carousel?platform=web
Teacher Reference: Post Class Project Solution	Create a Carousel and Customize the Bottom Tabs - Solution	https://snack.expo.dev/@procodingclass/wad-402-c60-pcp-add-carousel--solution?platform=web