### AMERICAN EXPRESS

### REACT NATIVE WORKSHOP

# WHO WE ARE

### THE TEAM



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# WHAT IS REACT?

#### REACT

- React is a declarative, efficient, and flexible JavaScript library for building user interfaces (Facebook).
- Benefits of using React:
  - Component based elements meant for reuse
  - Virtual DOM allows for more flexibility and improves performance

#### **REACT NATIVE**

- React Native lets you build native mobile apps using only JavaScript
- Benefits of React Native:
  - Uses native components instead of web components as building blocks
  - Interacts with native code in addition to JavaScript
  - Hot Reloading

# THE WORKSHOP

#### INTRO TO THE WORKSHOP

- Simple demo app with 2-3 different pages
- Features:
  - Geolocation
  - Yelp API
- Native Elements
  - Buttons & Inputs
  - ListView
  - Navigation

#### **PREREQUISITES**

- Node
- Create Yelp developer account and register the app: <a href="https://www.yelp.com/developers/documentation/v3">https://www.yelp.com/developers/documentation/v3</a>
- ▶ React Native Command Line Utility: npm install -g create-react-native-app
- macOS:
  - Homebrew (if necessary)
  - Xcode Command Line Tools
  - Watchman
- Windows:
  - ????
- https://facebook.github.io/react-native/docs/getting-started.html

Discuss expo during demo - explain what it is

# DEMO

### **CREATE REACT NATIVE APP**

- \$ create-react-native-app myapp
- \$ npm run ios

```
import React from 'react';
import { StyleSheet, Text, TextInput, View } from 'react-native';
export default class App extends React.Component {
 constructor(props) {
   super(props);
   this.state = {
     food: '',
     location: ''
   };
  render() {
   return (
     <View style={styles.container}>
     <TextInput
       style={styles.input}
       placeholder="Food"
       onChangeText={(text) => this.setState({ food: text })}
       value={this.state.food}
      </View>
const styles = StyleSheet.create({
  container: {
   flex: 1,
   backgroundColor: '#fff',
   alignItems: 'center',
   justifyContent: 'center',
 input: {
   height: 40,
   margin: 5,
   borderBottomWidth: 1,
   borderColor: 'gainsboro'
});
```

```
console.error(error);
import React from 'react';
import { ActivityIndicator, Button, StyleSheet, Text, TextInput, View }
from 'react-native';
export default class App extends React.Component {
                                                                                   return (
  constructor(props) {
                                                                                     <View style={styles.container}>
    super(props);
                                                                                     <TextInput
                                                                                      placeholder="Food"
                                                                                      onChangeText={(text) => this.setState({ food: text })}
                                                                                      value={this.state.food}
                                                                                      placeholder="Location"
                                                                                       onChangeText={(text) => this.setState({ location: text })}
                                                                                       value={this.state.location}
    this.setState({ loading: true });
                                                                                     <Button
    var url = 'https://api.yelp.com/v3/businesses/search?
term='+this.state.food;
                                                                                      title="Search"
                                                                                      disabled={this.state.loading}
    console.log(url);
                                                                                     <ActivityIndicator
                                                                                       animating={this.state.loading}
      method: 'GET',
      headers: {
                                                                                      size='large'
         'Authorization': 'Bearer yiQpE07eS-
iMwnNbENgMeft6wydLSSiHHW7DPsWaj5ZO ZE USzlnUbv2E04vsPQaTO4b8Tm9JPBfj1joe
                                                                                    </View>
lvm2kRqOYj-ruYnPKRGqOzVJmGroKWC4qyNBG2K8CAWXYx'
    .then((response) => response.json())
    .then((responseJson) => {
      this.setState({
        loading: false
                                                                                   justifyContent: 'center',
                                                                                   padding: 16
      if (responseJson.businesses.length > 0) {
        console.log(responseJson);
                                                                                 input: {
                                                                                   margin: 5,
                                                                                   borderBottomWidth: 1,
        Alert.alert('No places found.');
                                                                                   borderColor: 'gainsboro'
```

```
import { StackNavigator } from 'react-navigation';
import HomeScreen from './Views/HomeScreen';
import ResultScreen from './Views/ResultsScreen';
import DetailScreen from './Views/DetailScreen';

export default App = StackNavigator({
   Home: { screen: HomeScreen },
   Result: { screen: ResultScreen },
   Detail: { screen: DetailScreen }
});
```

```
<TouchableHighlight
import React, { Component } from 'react';
                                                                                onPress={ this. onPressBusiness.bind(this) }
import { FlatList, Image, StyleSheet, View, Text, TouchableHighlight }
from 'react-native';
                                                                                underlayColor='transparent'
                                                                               activeOpacity={.5} >
export default class ResultScreen extends Component {
                                                                                <View style={styles.listItem}>
 static navigationOptions = ({ navigation }) => ({
                                                                                  <Image
   title: `${navigation.state.params.food} near $
                                                                                    style={styles.listItemImage}
{navigation.state.params.location}
                                                                                    source={{ uri: this.props.item.image url }}
                                                                                  <Text style={styles.listItemText}>{this.props.item.name}</Text
 constructor(props) {
                                                                                </View>
   super(props);
                                                                              </TouchableHighlight>
   const { params } = this.props.navigation.state;
     businesses: params.businesses
                                                                       const styles = StyleSheet.create({
                                                                          container: {
                                                                            flex: 1,
                                                                            justifyContent: 'center',
   return (
                                                                            padding: 16
        <FlatList
                                                                          listItem: {
          data={this.state.businesses}
                                                                           height: 50,
          keyExtractor={(item, index) => item.id}
                                                                            flex: 1,
          renderItem={(({item})) => <ListItem item={item}</pre>
screenProps={{ rootNavigation: this.props.navigation }}/> }
                                                                            alignItems: 'center',
                                                                            justifyContent: 'center',
      </View>
                                                                            paddingBottom: 10,
                                                                           marginBottom: 10,
                                                                           borderBottomWidth: 1,
                                                                            borderBottomColor: 'gainsboro'
class ListItem extends Component {
                                                                          listItemImage: {
   this.props.screenProps.rootNavigation.navigate('Detail', {
                                                                           height: 50
                                                                          listItemText: {
                                                                            flex: 8,
                                                                            fontSize: 16,
 render() {
                                                                           paddingLeft: 8,
   return (
```

```
import React from 'react';
import {    ActivityIndicator, Button, StyleSheet, Text, TextInput, View } from
                                                                                        return (
'react-native':
                                                                                          <TextInput
export default class App extends React.Component {
                                                                                            style={styles.input}
  constructor(props) {
                                                                                            placeholder="Food"
                                                                                            onChangeText={(text) => this.setState({ food: text })}
                                                                                            value={this.state.food}
      location: '',
                                                                                          <TextInput
                                                                                            style={styles.input}
                                                                                            placeholder="Location"
                                                                                            onChangeText={(text) => this.setState({ location: text })}
                                                                                            value={this.state.location}
    this.setState({ loading: true });
                                                                                          <Button
    var url = 'https://api.yelp.com/v3/businesses/search?term='+this.state.food;
                                                                                            title="Search"
    url += '&location='+this.state.location:
                                                                                            disabled={this.state.loading}
    console.log(url);
                                                                                          <ActivityIndicator
                                                                                            animating={this.state.loading}
      method: 'GET',
                                                                                            style={styles.spinner}
                                                                                            size='large'
        'Authorization': 'Bearer yiQpE07eS-
iMwnNbENqMeft6wydLSSiHHW7DPsWaj5ZO ZE USzlnUbv2E04vsPQaTO4b8Tm9JPBfj1joelvm2kRqOY
j-ruYnPKRGqOzVJmGroKWC4qyNBG2K8CAWXYx'
                                                                                          </View>
    .then((response) => response.json())
    .then((responseJson) => {
      this.setState({
      if (responseJson.businesses.length > 0) {
                                                                                        justifyContent: 'center',
        console.log(responseJson);
                                                                                        padding: 16
                                                                                      input: {
                                                                                       height: 40,
                                                                                       margin: 5,
                                                                                        borderBottomWidth: 1,
                                                                                        borderColor: 'gainsboro'
         console.error(error);
```