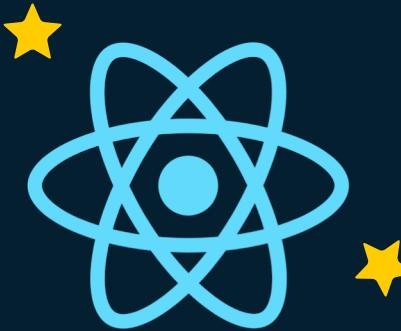




bit.ly/stcslack



# React Native WORKSHOP



Developing *cross-platform* mobile apps



# STC Committee Recruitment

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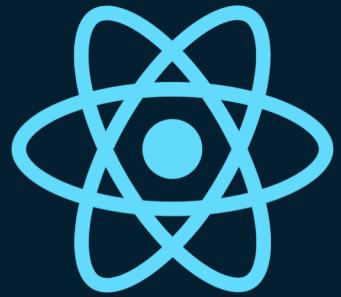
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# What is React Native?





# Using ReactJS to develop Native apps





# What is ReactJS?



# ReactJS

is a  framework \*

created by  for  
developing websites





***“Why do  
we need a  
framework for  
JavaScript?”***



# ReactJS

is just one of many  
JavaScript frameworks



meteorJS



polymerJS



AngularJS



VueJS



EmberJS

that replace **HTML/CSS/JS** &  
make **web development** easier



# ReactJS

Website

# React Native

Mobile app

iOS

Android

Desktop app

Windows

Mac

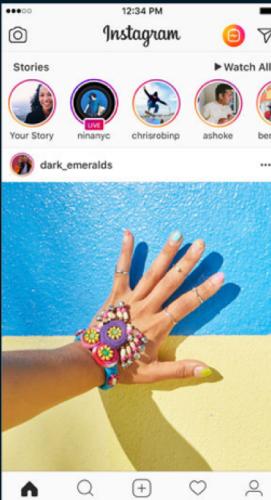


“Why  
*cross-platform?*”

# WhatsApp



# Instagram



# Android Studio



# Xcode



# React Native

# *Cross Platform*

- › Single code base
- › One team for both platform
- › Consistent design



# React Native Apps



*“I keep hearing  
the word **Native**,  
what exactly  
does it **means**? ”*

# Native vs Hybrid apps



# Native

# Hybrid

- Built with SDK
- Android Studio  
(Java/Kotlin)
- Xcode (Swift)
- Runs in webView
- HTML/CSS/JS
- Ionic, Cordova,  
Xamarin, PWA



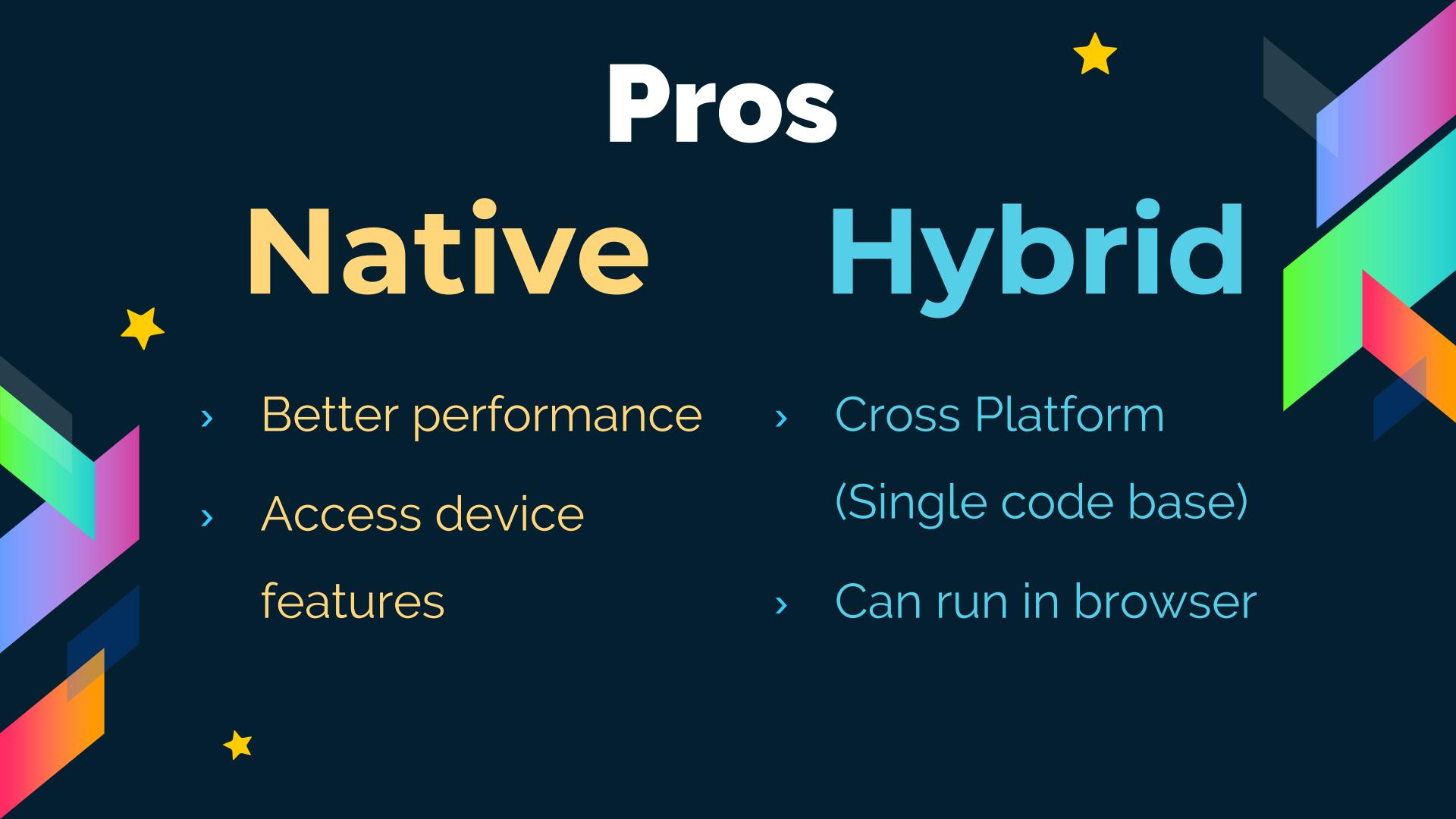
# Pros

## Native

- › Better performance
- › Access device features

## Hybrid

- › Cross Platform  
(Single code base)
- › Can run in browser



# Cons



## Native

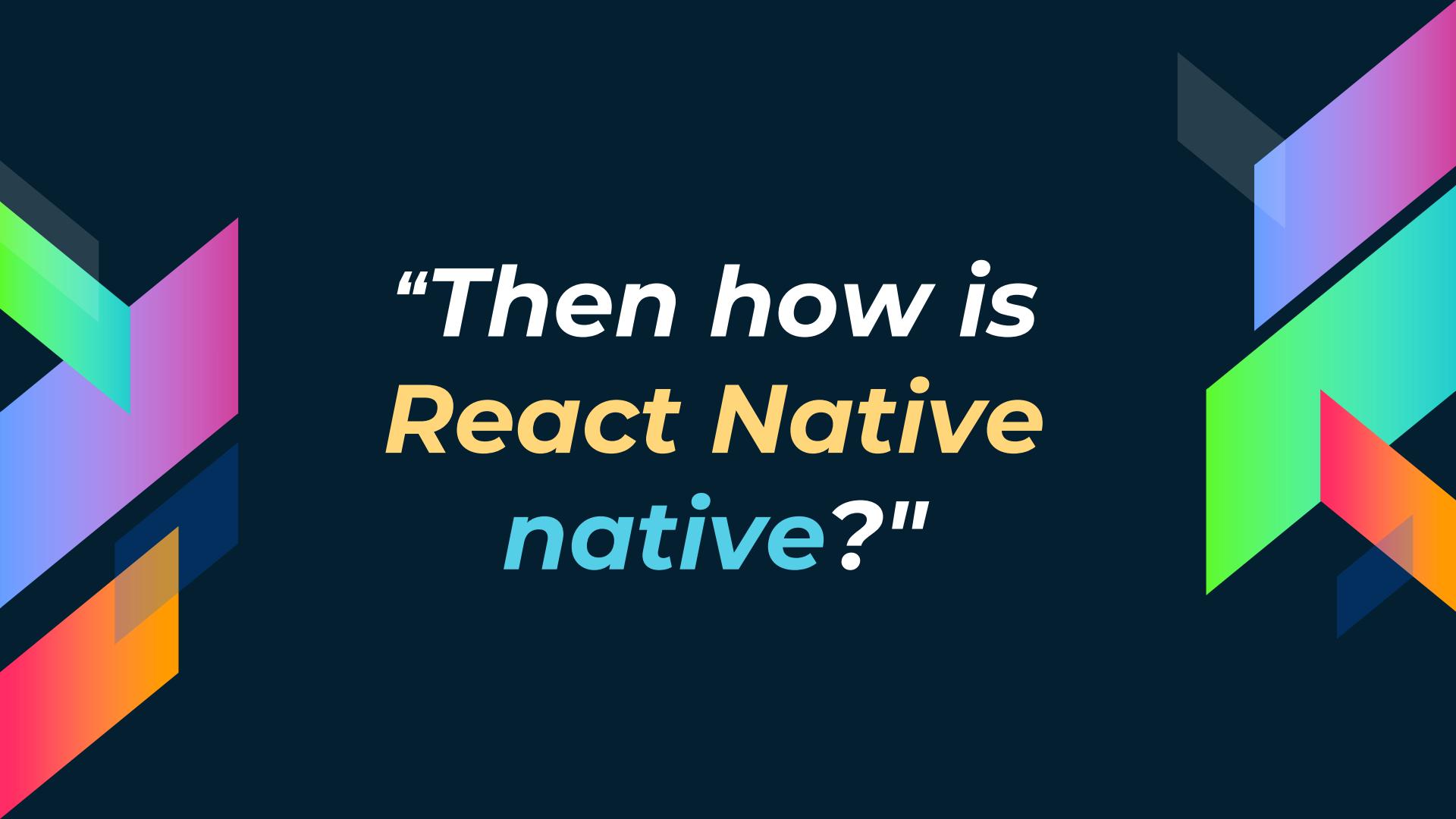
- › Different code base
- › Takes longer time
- › Same feature but different code



## Hybrid

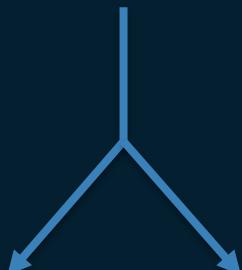
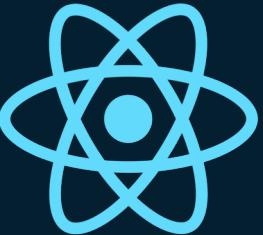
- › No access to some device features
- › Worse performance





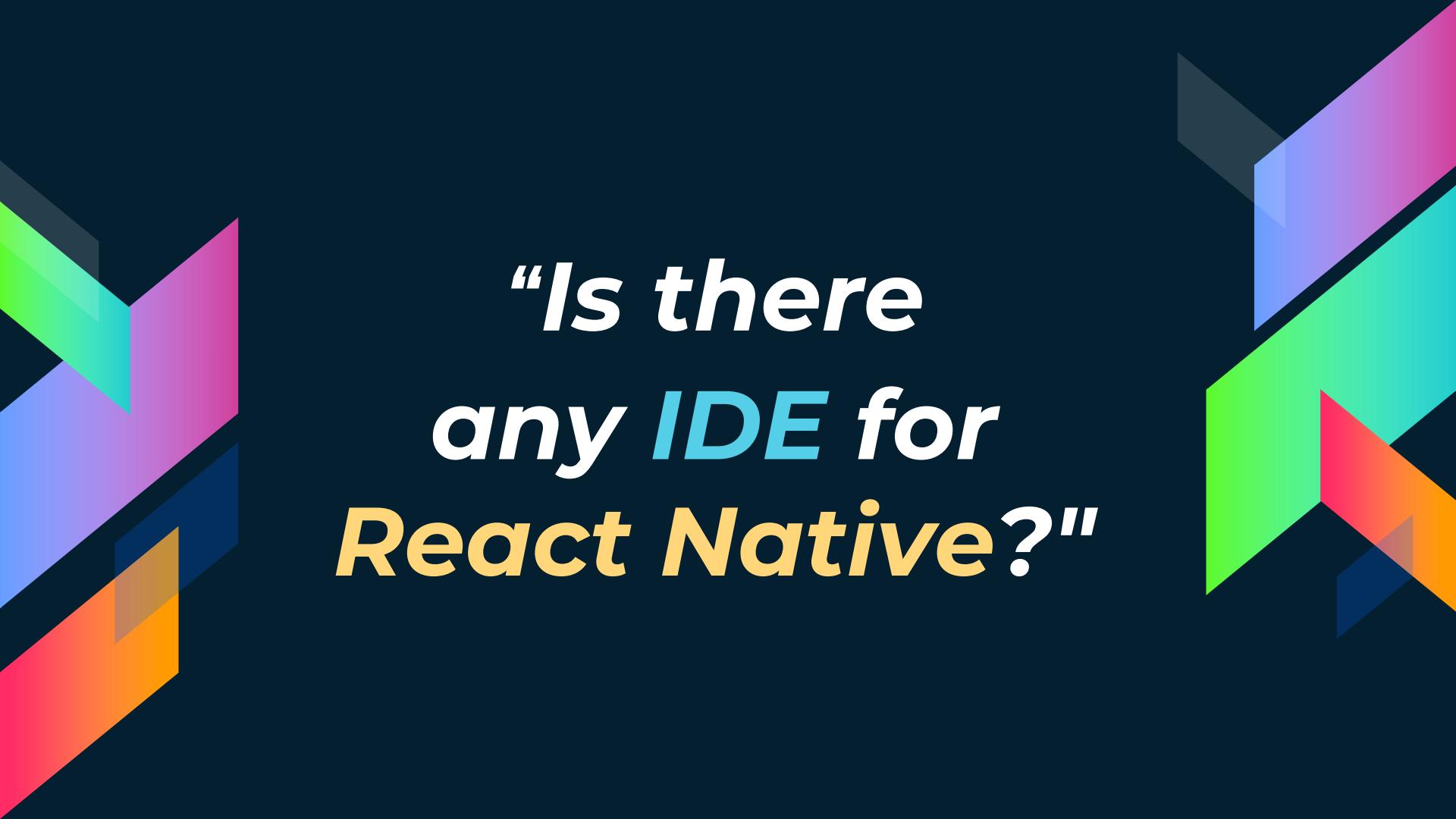
*“Then how is  
React Native  
native?”*

# Development & Testing



App Deployment



The background features abstract geometric shapes composed of overlapping triangles in various colors (pink, purple, blue, green, yellow, orange) on a dark navy blue background.

**“Is there  
any *IDE* for  
*React Native*?“**

# IDE



WebStorm

# Text Editor



Sublime  
Text



VS Code

# *How to develop with* **React Native**



# 3 ways of developing with React Native

- › `react-native init`
- › `create-react-native-app`
- › Expo Snack

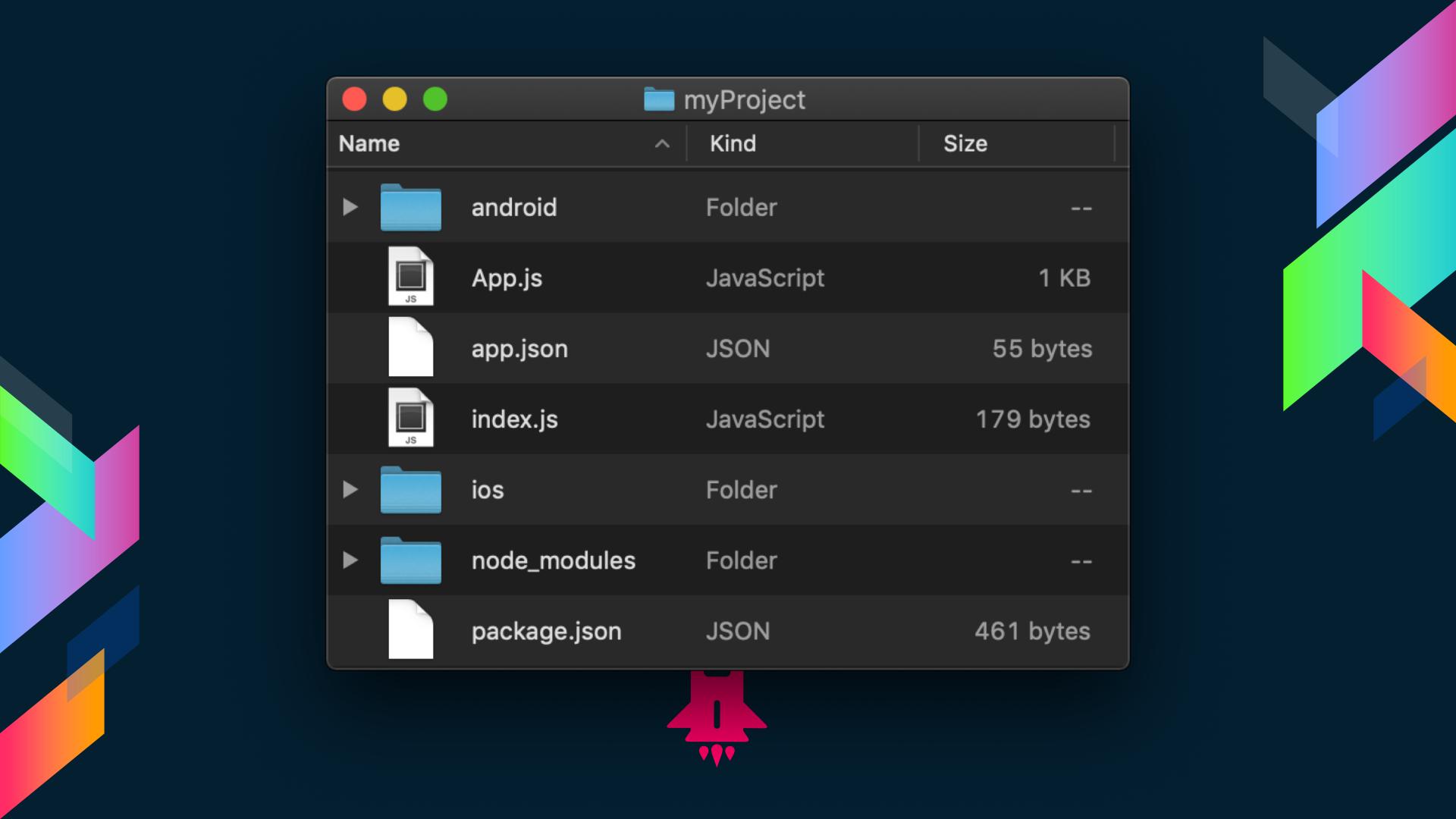
# `react-native init`

- › Requires NPM/yarn
- › Integrates React Native to existing app
- › Requires Android Studio/Xcode
- › Runs on device/simulator
- › Contains native project files (iOS, Android)



```
$ npm install -g react-native-cli  
$ react-native init myProject  
$ cd myProject  
$ react-native run-ios/android
```





A screenshot of a Mac OS X file browser window titled "myProject". The window shows a list of files and folders:

Name	Kind	Size
▶ android	Folder	--
▶ App.js	JavaScript	1 KB
▶ app.json	JSON	55 bytes
▶ index.js	JavaScript	179 bytes
▶ ios	Folder	--
▶ node_modules	Folder	--
▶ package.json	JSON	461 bytes

# create-react-native-app

- › Requires NPM/yarn
- › Does not require Android Studio/Xcode
- › Runs on device/simulator with Expo app
- › Does not require internet (except when installing)
- › Does not contain native project files

```
● ● ●  
$ npm install -g create-react-native-app  
$ create-react-native-app myProject  
$ cd myProject  
$ npm start
```





Name	Kind	Size
 App.js	JavaScript	580 bytes
 app.json	JSON	47 bytes
 App.test.js	JavaScript	228 bytes
 node_modules	Folder	261.4 MB
 package.json	JSON	617 bytes
 README.md	Markdown Document	12 KB

# Expo Snack

- › Web IDE
- › Runs on device/simulator with Expo App
- › Requires internet (files are stored online)
- › Fastest reload time among the 3
- › <http://snack.expo.io>

snack.expo.io

henlo

Search Run Export Embed Save changes

Open files

App.js

Project

assets components App.js package.json

Hello World

```
1 import * as React from 'react';
2 import { Text, View } from 'react-native';
3 import styles from './Styles';
4
5 export default class App extends React.Component {
6   render() {
7     return (
8       <View style={styles.view}>
9         <Text style={styles.text}>
10           Hello World
11         </Text>
12       </View>
13     );
14   }
15 }
```

No errors Prettier { }

# App Deploy

Expo Snack  
↓  
**create-react-native-app**

react-native eject

react-native *init*

