

React Native

Getting Started

What is React Native?

React Native is a framework for building mobile applications using JavaScript and React.

Key idea

- Write one codebase

- Run it on Android and iOS

- Uses real native components, not WebViews

React Native lets you build mobile apps using React, but instead of HTML it uses native mobile components.

Why Use React Native?

Advantages

Single codebase for Android & iOS=

Fast development (Hot Reload)

Large ecosystem & community

Easy for students who already know JavaScript / React

Access to native APIs (camera, GPS, storage, etc.)

Who uses it?

Instagram

Facebook

Shopify

Discord

How React Native Works

JS → HTML → CSS → Browser

React Native:

JS → Bridge → Native UI Components

Getting Started (Installation)

Required

Node.js (LTS)

npm or yarn

Git

For Android

- Android Studio
- Android SDK
- Emulator or real device

For iOS (macOS only)

- Xcode
- iOS Simulator

Installation Options

Option : Expo (Recommended for beginners)

Faster setup

Less configuration

Perfect for teaching

Installing with Expo

```
npm install -g expo-cli
```

```
npx create-expo-app myFirstApp
```

```
cd myFirstApp
```

```
npm start
```

First React Native App (Example)

```
import { Text, View } from 'react-native';

export default function App() {
  return (
    <View>
      <Text>Hello, React Native!</Text>
    </View>
  );
}
```

Project Layout & Structure

myFirstApp/

 └── App.js

 └── package.json

 └── node_modules/

 └── assets/

 └── icon.png

 └── splash.png

 └── app.json

App.js

- Entry point of the app
- Main component

assets/

- Images
- Icons
- Fonts

package.json

- Project dependencies
- Scripts

app.json

- App configuration (name, icon, splash, permissions)

Recommended Folder Structure (Real Projects)

src/



Key Features of React Native

Cross-Platform Development

Hot Reload / Fast Refresh

Native Performance

Rich Component System:

`View`

`Text`

`Image`

`ScrollView`

`FlatList`

`Pressable`

Class Work

Create a new Expo project:

Создайте новый проект Expo:

Change the text to show:

Измените текст, чтобы отображалось:

- Student name
- Course name

Имя студента

Название курса

Add a button

Добавьте кнопку

Add a style to text and button

Добавьте стиль к тексту и кнопке

Upload it to [GitHub](#)

Загрузите проект на GitHub