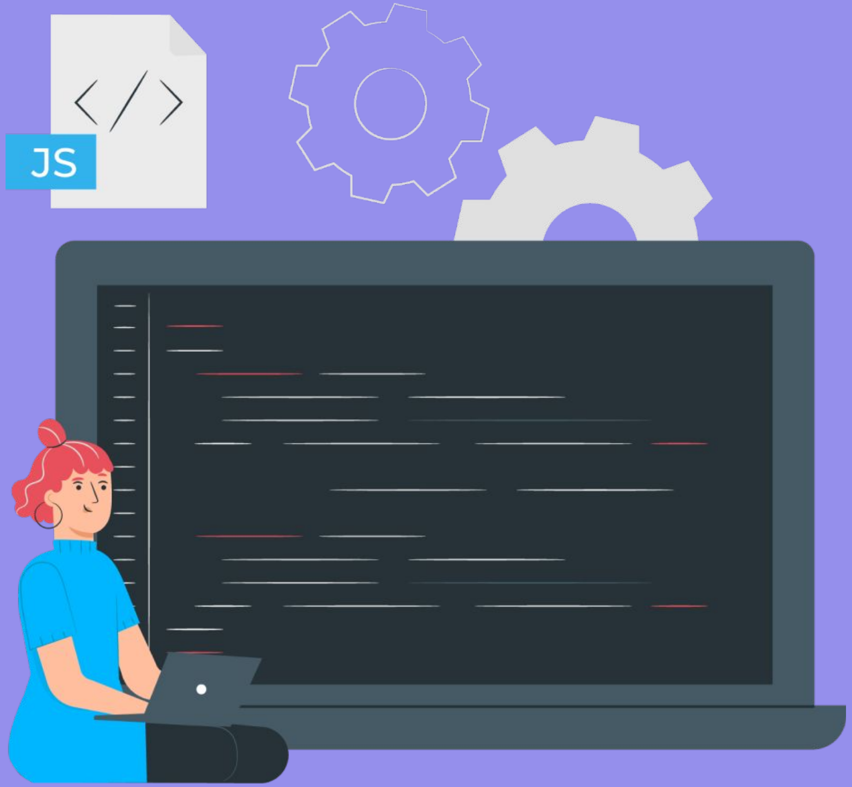
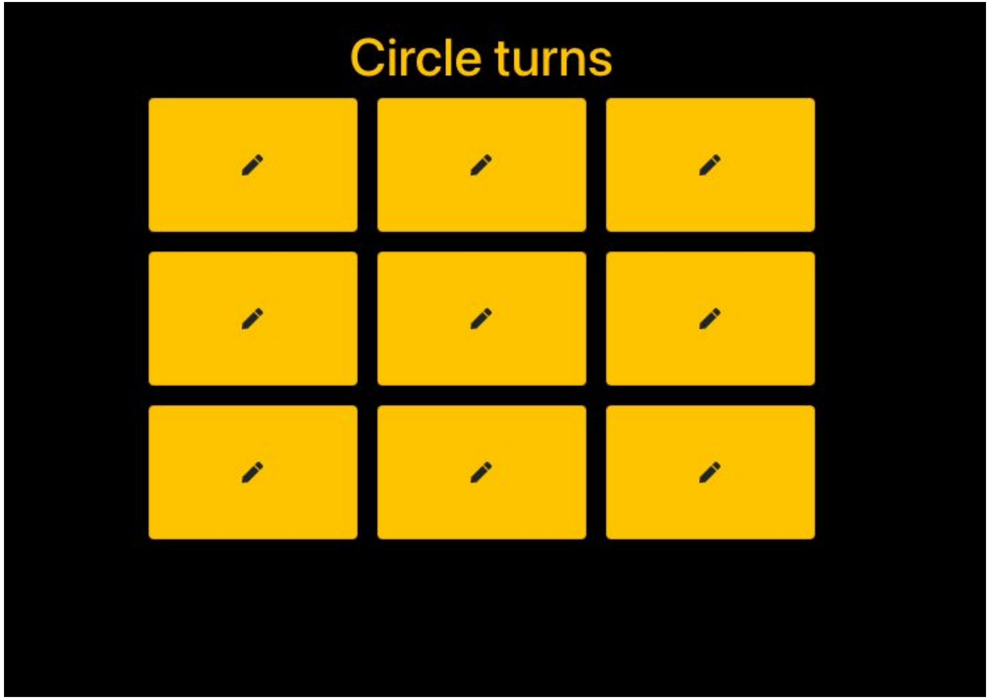
React Hooks



Relevel
by Unacademy

App we will be building today - Tic-Tac-Toe App



Circle turns

What does it take to build a Tic-Tac-Toe App?

The knowledge of the following concepts is necessary to build a Tic-Tac-Toe App in React -

- React Hooks.
- useState
- useEffect
- localStorage

React Hooks

- Available from React 16.8.0 allows users to use features of Stateful Components in Functional Components.
- They are functions that allow us React state and lifecycle features without using Classes and organise the logic inside a component into reusable, isolated units.
- Benefits: 1. Allows using of stateful logic between components. 2. Allows separating complex business logic into smaller, isolated functions.

Rules for React Hooks

You need to follow two rules in order to use hooks,

i. Hooks should always be called at the top level of your react functions. You shouldn’t call Hooks inside nested functions, conditions or loops. This will ensure that Hooks are called in the same order each time a component renders and it preserves the state of Hooks between multiple useState and useEffect calls.

ii. Call Hooks from React Functions only, not from regular JavaScript functions.

useState Hook

i. To use state in Functional Component, we use useState.

ii. useState Hooks returns a pair of values: the current state and a function that updates it.

iii. Explain the Example

useEffect Hook

i. It lets us implement life cycle methods which were native to Class based components. By using this hook we tell React that the component needs to do something after render. React will remember the function we passed, and call it later after performing the DOM updates.

ii. By default, it runs after every render, and the behaviour of this can be controlled to implement lifecycle methods.

iii. Explain how we can use useEffect for componentDidMount, componentDidUpdate and componentwillUnmount

iv. Explain the Example: Code

localStorage

i. When building a React app, there will be times where you'll want to persist data in one way or another. Typically you'd use some type of backend, especially for more sensitive data, but sometimes you just need to save something locally on the users machine — you can do this with LocalStorage.

ii. localStorage is one of the two mechanisms of a browser's web storage along with sessionStorage. It allows users to save data as key-value pairs in the browser for later use.

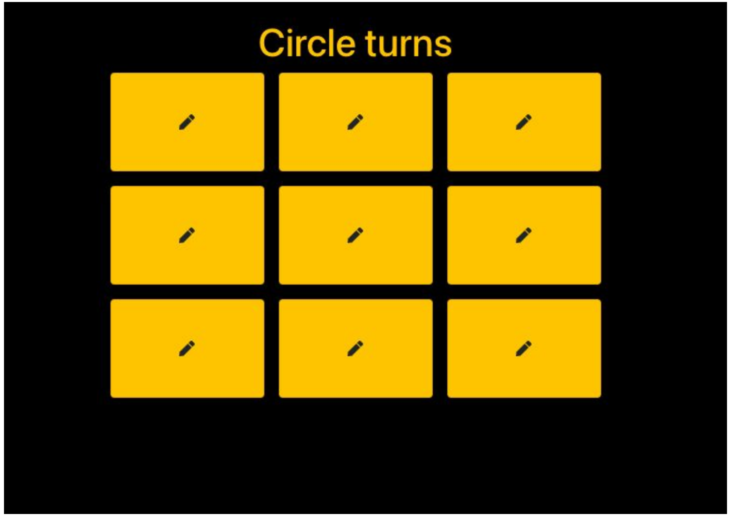
iii. Unlike sessionStorage mechanism, which persists data in the browser storage as long as the current browser tab is running, localStorage does not clear data when the browser closes. This makes it ideal for persisting data not bound to the current browser tab.

iv. It gives access to the browser's Storage object.The Storage object has a sea of methods for saving, removing and reading data. Eg: setItem(), getItem().

v. Maximum limit of data saving is 5 MB.

vi. Explain the Code Example here.

Building the Tic-Tac-Toe App with useState, useEffect and localStorage.



- CodeSandbox App Link Here
- Explain the Game. Feel free to play with it.

Practice Homework

- Try to revamp this Tic-Tac-Toe in 4x4 grid.

THANK YOU