

**React 16,
the future,
& you**

Hello! I'm Jenn.

Senior Frontend Engineer

classpass

@gurlcode

**React 16,
the future,
& you**

**Dear React Core Team,
I love you but please stop releasing
new features long enough
for me to give this talk.**

@gurlcode

No, I will not be talking about Hooks.

React 16.0

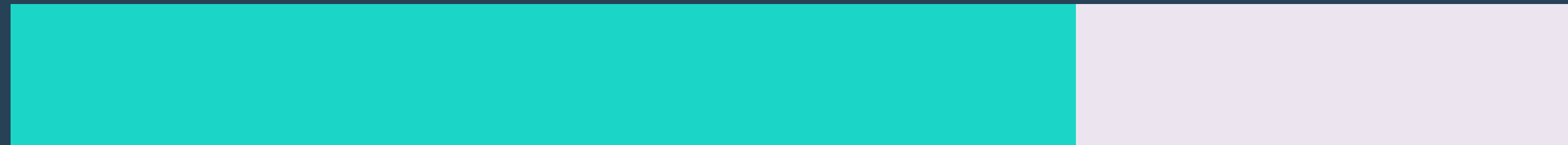
WTF

@gurlcode

Why The Fiber

Reconciliation

Stack



 Reconcile + update

 Other thread work

Stack

Cannot interrupt



 Reconcile + update

 Other thread work

Fiber

Unit of work



 Render + reconcile

 Other thread work

OMIG

@gurlcode

requestIdleCallback

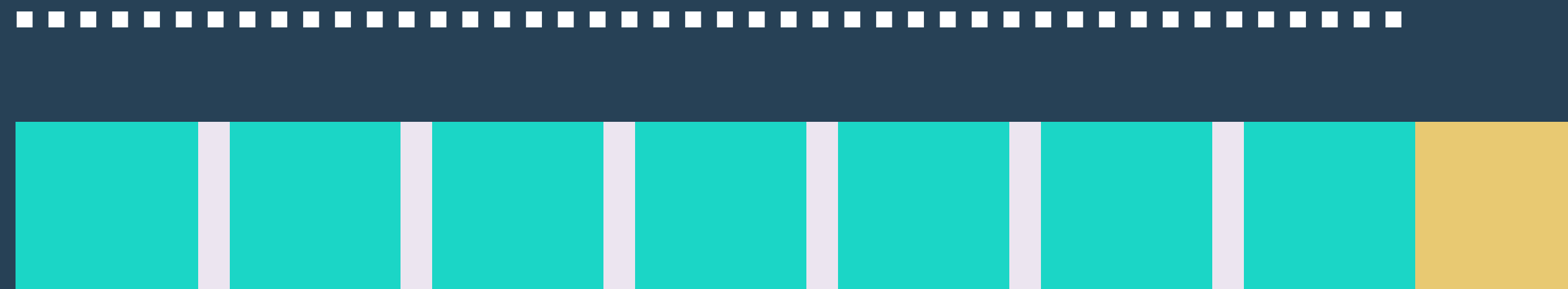
Concurrent

Non-blocking

Non-blocking Priority

Fiber

Render



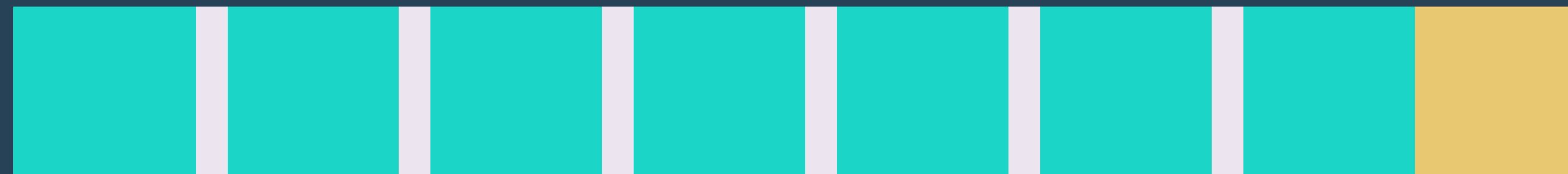
 Render + reconcile

 Other thread work

Fiber

Commit

.....



 Render + reconcile

 Other thread work

Fiber

Render



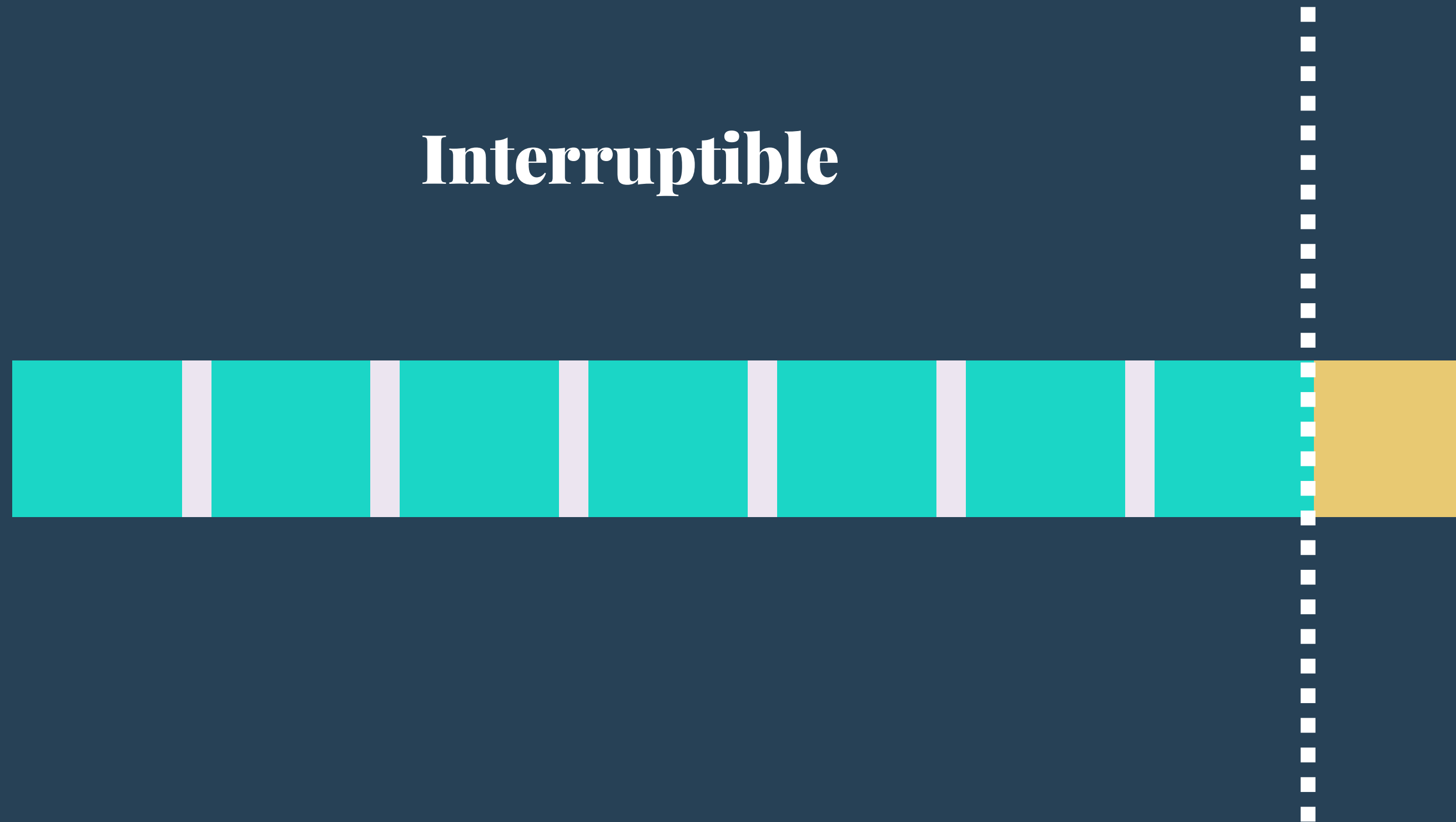
 Render + reconcile

 Other thread work

Fiber

Interruptible

Uninterruptible



 Render + reconcile

 Other thread work

Time Slicing

React 16.3

Render

componentWillMount

componentWillReceiveProps

componentWillUpdate

shouldComponentUpdate

Commit

componentDidMount

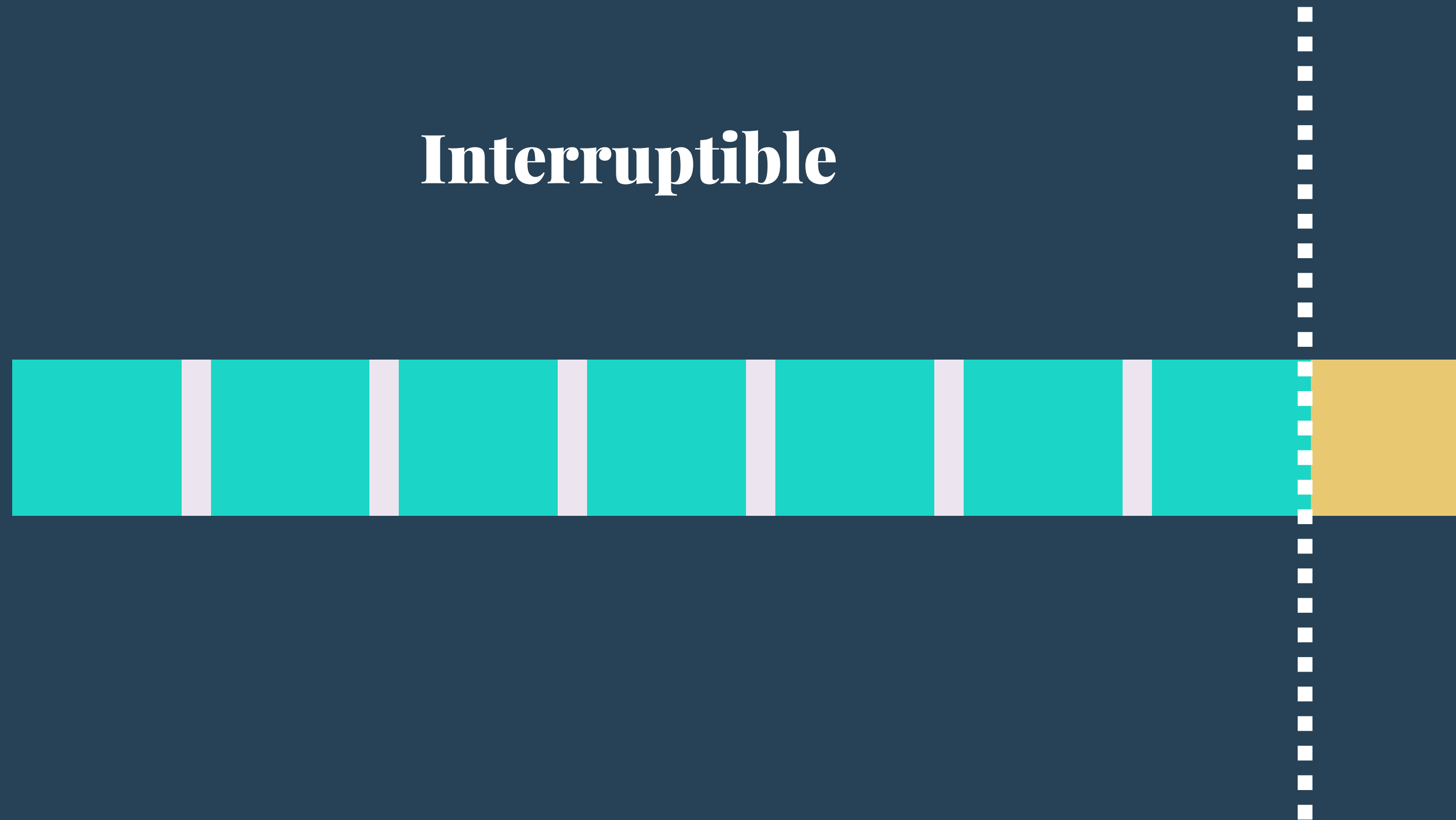
componentDidUpdate

componentWillUnmount

Fiber

Interruptible

Uninterruptible



 Render + reconcile

 Other thread work

componentWillMount

componentWillReceiveProps

componentWillUpdate

constructor

componentWillReceiveProps

componentWillUpdate

constructor

getDerivedStateFromProps

componentWillUpdate

constructor

getDerivedStateFromProps

getSnapshotBeforeUpdate

UNSAFE_

StrictMode

componentWithMount

components With Mount

Suspense

<Suspense fallback={ } />



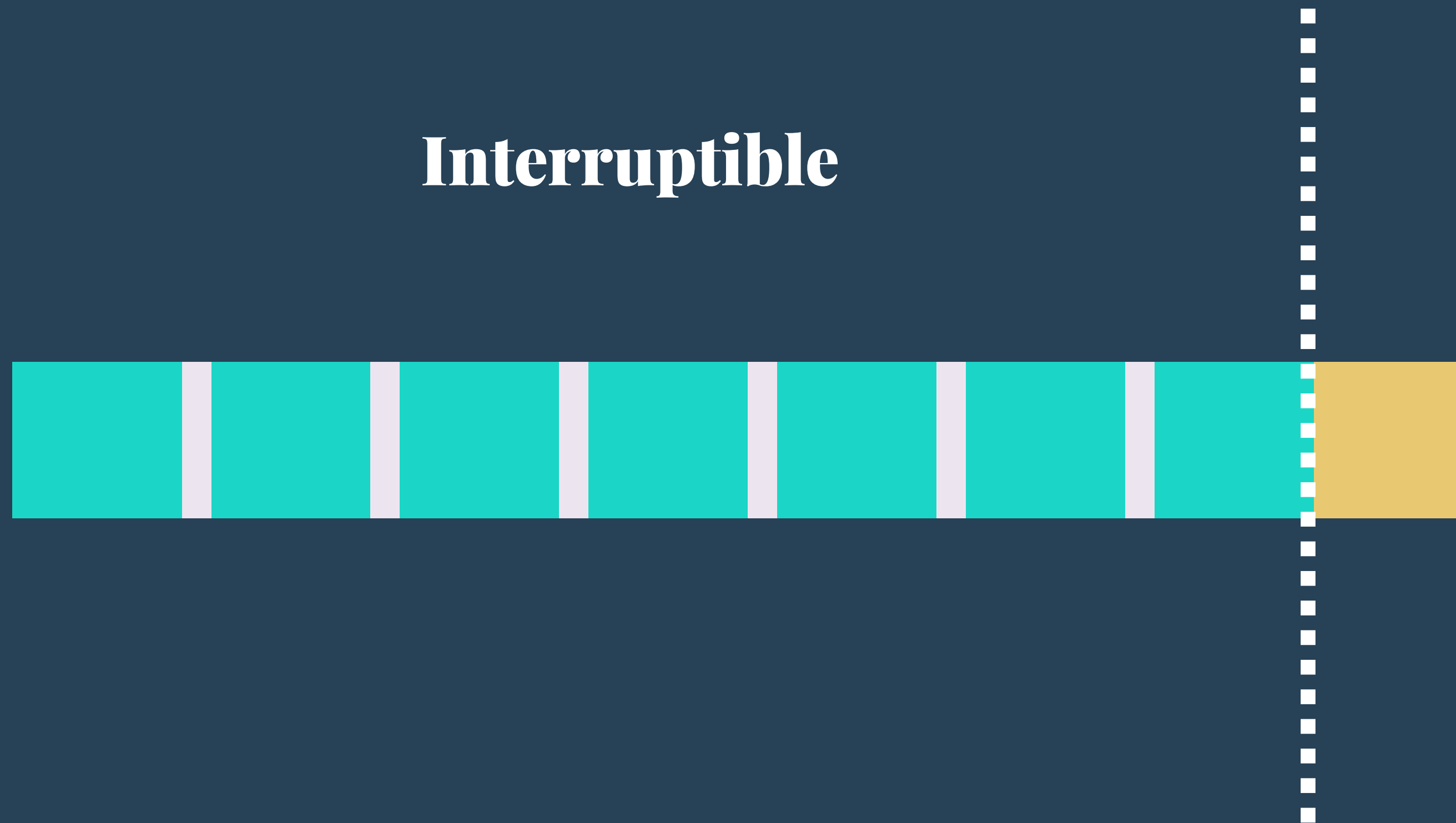


**const loaded =
venues.loaded &&
reviews.loaded &&
schedules.loaded &&
...etc.**

Fiber

Interruptible

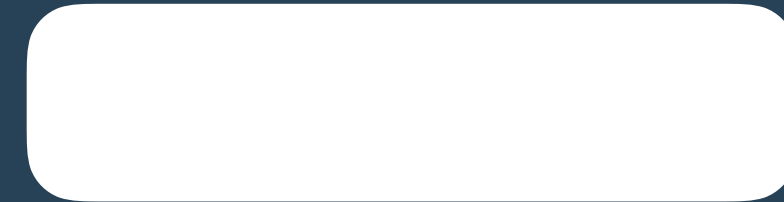
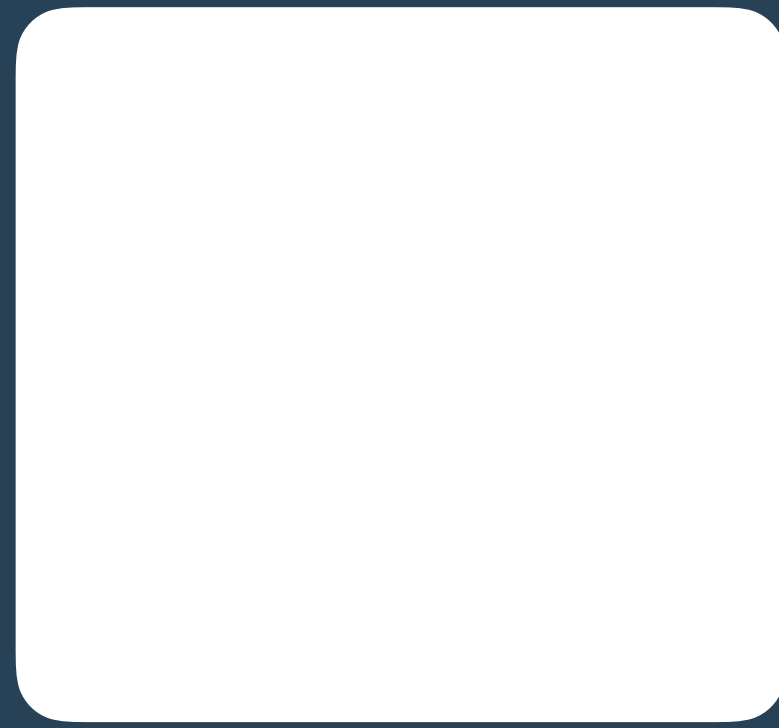
Uninterruptible



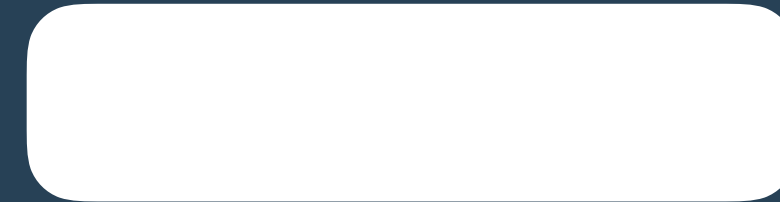
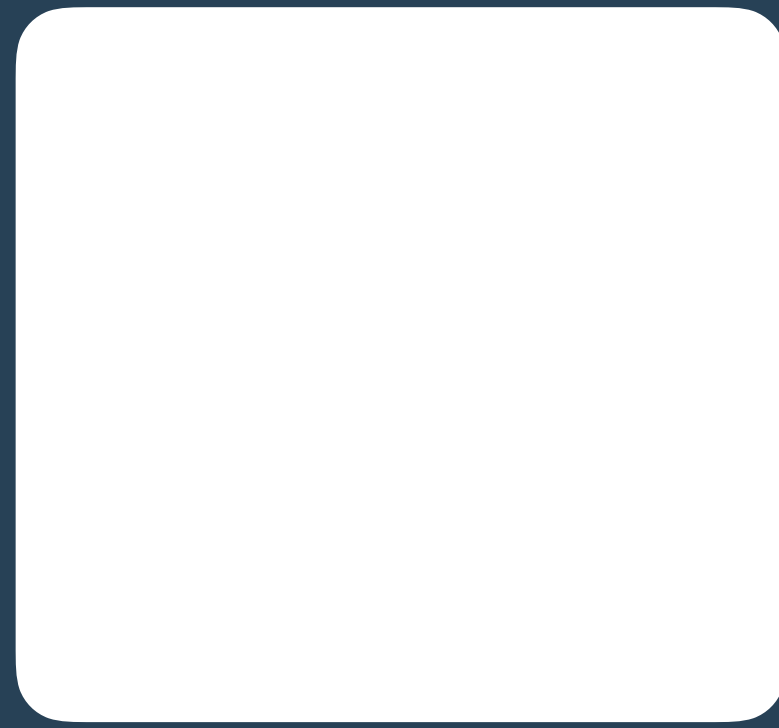
 Render + reconcile

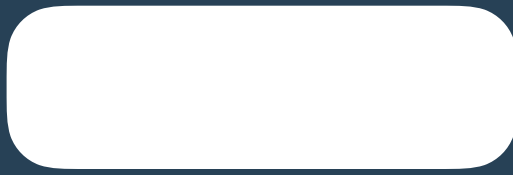
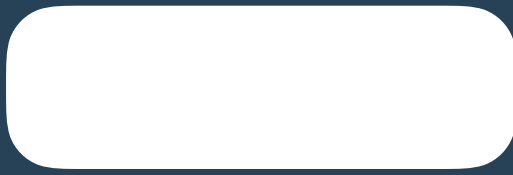
 Other thread work

maxDuration={100}









React 16.6

React.lazy

@gurlcode

```
const Image = React.lazy(() => import ( './Image' ));
```

```
<Suspense fallback={ <Loader /> }>  
  <Image />  
</Suspense>
```


2019

~early 2019: Hooks

~early - mid 2019: Concurrent Mode

~mid-2019: Suspense for Data Fetching

Server-side Suspense

Scheduler

React Cache

Fatigue

Excited



Exhausted

Me



Excited



Exhausted

Being curious is really fucking hard.

@gurlcode

Learning an unfinished thing is fucking hard.

@gurlcode

It is okay.

@gurlcode

Focus more on the concepts. Less on the code.

Thank you!

Lin Clark - A Cartoon Intro to Fiber: <https://www.youtube.com/watch?v=ZCuYPiUIONs>

Dan Abramov: <https://reactjs.org/blog/2018/03/01/sneak-peek-beyond-react-16.html>

Andrew Clark - ReactEurope 2017: <https://www.youtube.com/watch?v=QW5TE4vrklU>

Shawn Wang - Fresh Concurrent React: <https://github.com/sw-yx/fresh-concurrent-react>

You Probably Don't Need Derived State: <https://reactjs.org/blog/2018/06/07/you-probably-dont-need-derived-state.html>