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**BSCS 7B**

**Department of Computing**

**CS-213: Advanced Programming**

**Lab 08: React JS**

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**Lab 08: ReactJS States**

**Introduction**

This lab is about the states of the ReactJS library, creating a timer using ReactJS states.

**Objectives**

This lab will get students familiar with the ReactJS states and creating a timer application.

**Lab Tasks**

# **You have to practice the states codes covered in class lecture**

## Greet.js

import React, {Component} from 'react';

import './App.css';

class Greet extends Component{

constructor(props){

super();

this.state = {message:'start incrementing',

count : 0

}

}

render(){

return (

<div>

<h2>Welcome {this.props.name} </h2>

<h2> Count:{this.state.count} </h2>

<button onClick={()=>this.changeMessage()}>{this.state.message}</button>

<br />

</div>

)

}

increment()

{

this.setState(

{

count: this.state.count + 1

},

()=>{console.log("call back value", this.state.count)})

}

changeMessage(){

this.increment();

this.setState({message:'increment count'})

}

}

export default Greet;

## App.js

import React, {Component} from 'react';

import './App.css';

import Greet from './Greet'

class App extends Component{

constructor(props){

super(props)

}

render(){

return(

<div>

<h1>States in React.js example</h1>

<Greet name="Ishmal" > </Greet>

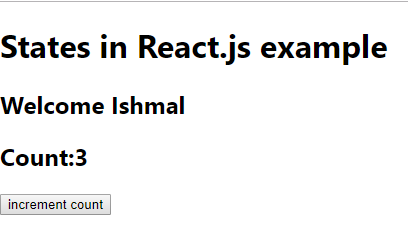
</div>

)

}

}

export default App;



# Create a timer application which asks the user for minutes. The user then click Start button and starts the timer count down. Preview @ <https://7zyz2y4p5j.csb.app/>

## App.js

import React, {Component} from 'react';

import './App.css';

class Timer extends Component{

render(){

return (

<div>

<h1>{this.props.minutes}:{this.props.seconds} </h1>

</div>

)

}

}

class App extends Component{

constructor(props){

super(props);

this.state = {

seconds:'00',

minutes:'00'

}

this.time=0;

this.intervalHander=0;

this.handleChange = this.handleChange.bind(this);

this.startCountDown = this.startCountDown.bind(this);

this.changeTime = this.changeTime.bind(this);

}

handleChange(event)

{

this.setState({

minutes: event.target.value

}, ()=>{console.log(this.state.minutes)})

}

changeTime()

{

if (this.time === 0)

{

console.log("hii")

document.getElementById("input").style.display = "block";

document.getElementById("button").style.display = "block";

document.getElementById("input").style.marginLeft = "600px";

document.getElementById("button").style.marginLeft = "650px";

clearInterval(this.intervalHandler);

}

console.log("time" +this.time);

var min = Math.floor(this.time/60); // convert to minutes

console.log("minutes: "+min)

var sec = this.time%60;

console.log("start count down")

if (min<10 && sec < 10)

{

this.setState({

minutes: "0"+min,

seconds:"0"+sec

})

}

else if (sec <10)

{

this.setState({

minutes: min,

seconds:"0"+sec

})

}

else if (min <10)

{

this.setState({

minutes: "0"+min,

seconds:sec

})

}

else

{

this.setState({

minutes: min,

seconds:sec

})

}

this.time--;

}

startCountDown(){

this.time= (this.state.minutes)\*60;

this.intervalHandler = setInterval(this.changeTime, 1000);

document.getElementById("input").style.display = "none";

document.getElementById("button").style.display = "none";

console.log("start count down")

}

render(){

return(

<div className="App">

<h1> Timer </h1>

<input id="input" type="number" onChange={this.handleChange} required />

<Timer minutes={this.state.minutes} seconds={this.state.seconds} />

<button id="button" onClick={this.startCountDown}>Start</button>

</div>

)

}

}

export default App;

