Lab8

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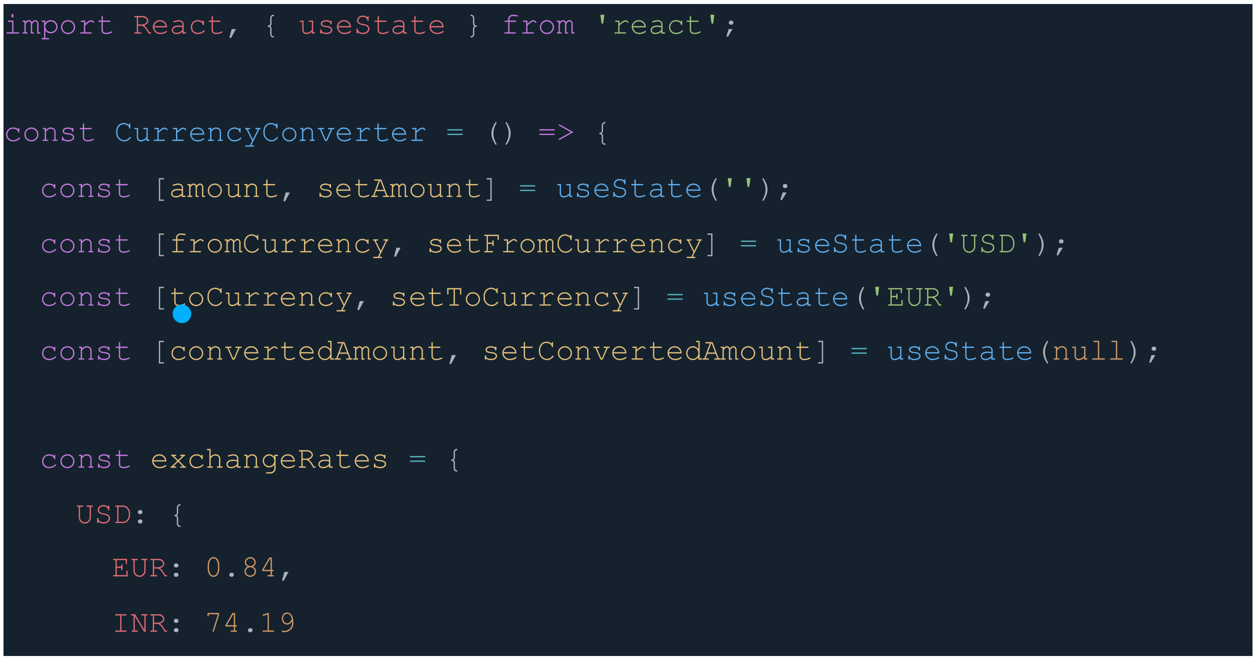
Question 1



```
import React, { useState } from 'react';

const CurrencyConverter = () => {
  const [amount, setAmount] = useState('');
  const [fromCurrency, setFromCurrency] = useState('USD');
  const [toCurrency, setToCurrency] = useState('EUR');
  const [convertedAmount, setConvertedAmount] = useState(null);

  const exchangeRates = {
    USD: {
      EUR: 0.84,
      INR: 74.19
    },
    EUR: {
```

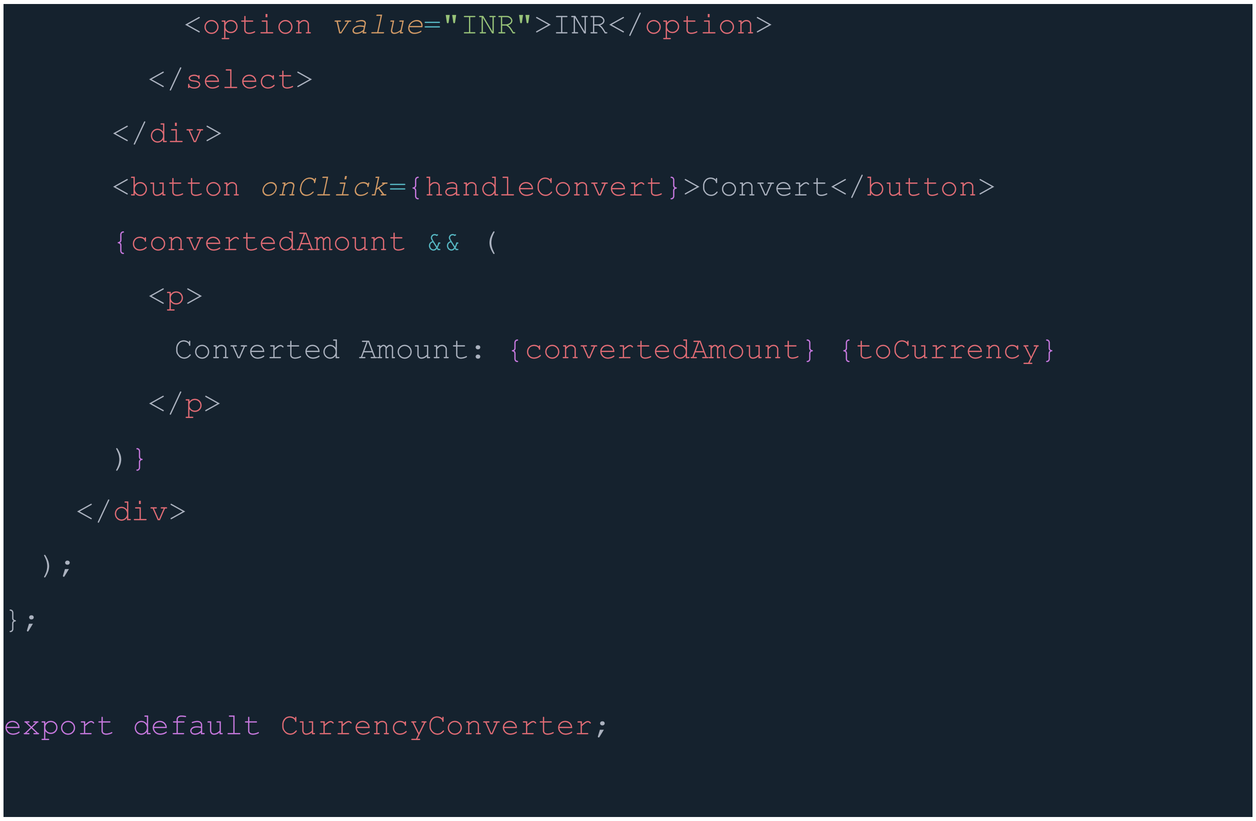
Index.jsx

```
import React from 'react';
import ReactDOM from 'react-dom';
import App from './App';

ReactDOM.render(<App />, document.getElementById('root'));
```

App.jsx

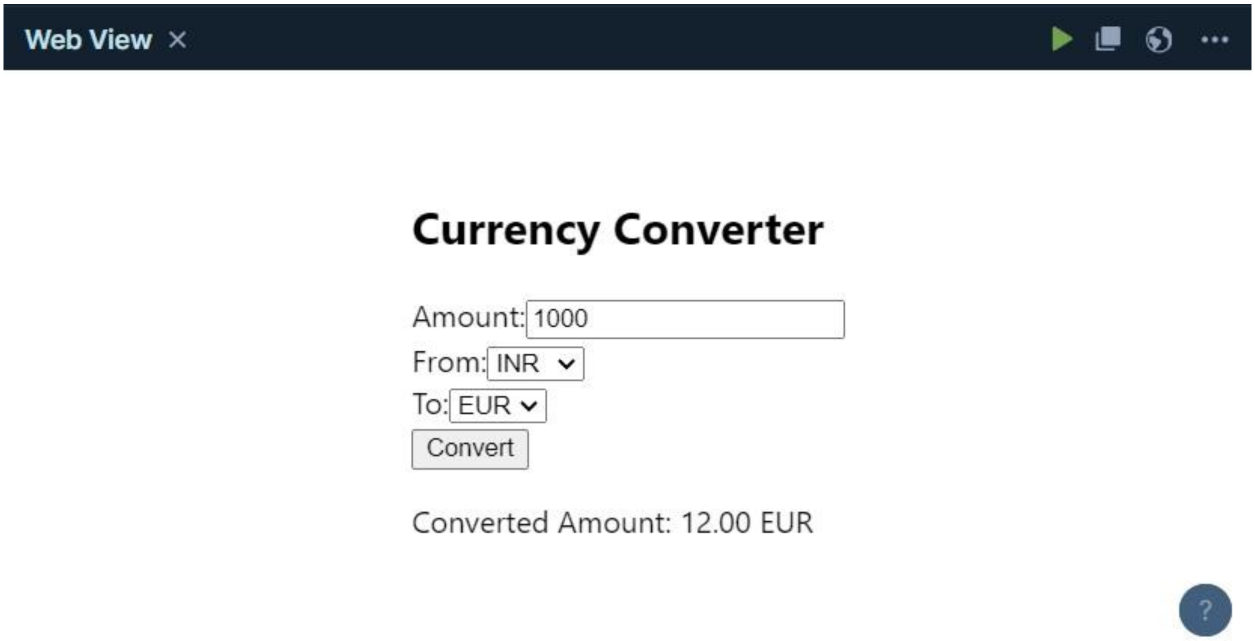
```
      USD: 1.19,
      INR: 83.32
    },
    INR: {
      USD: 0.013,
      EUR: 0.012
    }
  };

  const handleAmountChange = (e) => {
    setAmount(e.target.value);
  };

  const handleFromCurrencyChange = (e) => {
    setFromCurrency(e.target.value);
  };

  const handleToCurrencyChange = (e) => {
    setToCurrency(e.target.value);
  };
  const handleConvert = () => {
    const rate = exchangeRates[fromCurrency][toCurrency];
    const converted = parseFloat(amount) * rate;
    setConvertedAmount(converted.toFixed(2));
  };

  return (
    <div>
      <h2>Currency Converter</h2>
      <div>
        <label htmlFor="amount">Amount:</label>
        <input type="number" id="amount" value={amount} onChange={handleAmountChange} />
```

```
      </div>
      <div>
        <label htmlFor="fromCurrency">From:</label>
        <select id="fromCurrency" value={fromCurrency} onChange={handleFromCurrencyChange}>
          <option value="USD">USD</option>
          <option value="EUR">EUR</option>
          <option value="INR">INR</option>
        </select>
      </div>
      <div>
        <label htmlFor="toCurrency">To:</label>
        <select id="toCurrency" value={toCurrency} onChange={handleToCurrencyChange}>
          <option value="USD">USD</option>
          <option value="EUR">EUR</option>
```



```
          <option value="INR">INR</option>
        </select>
      </div>
      <button onClick={handleConvert}>Convert</button>
      {convertedAmount && (
        <p>
          Converted Amount: {convertedAmount} {toCurrency}
        </p>
      )}
    </div>
  );
};

export default CurrencyConverter;
```

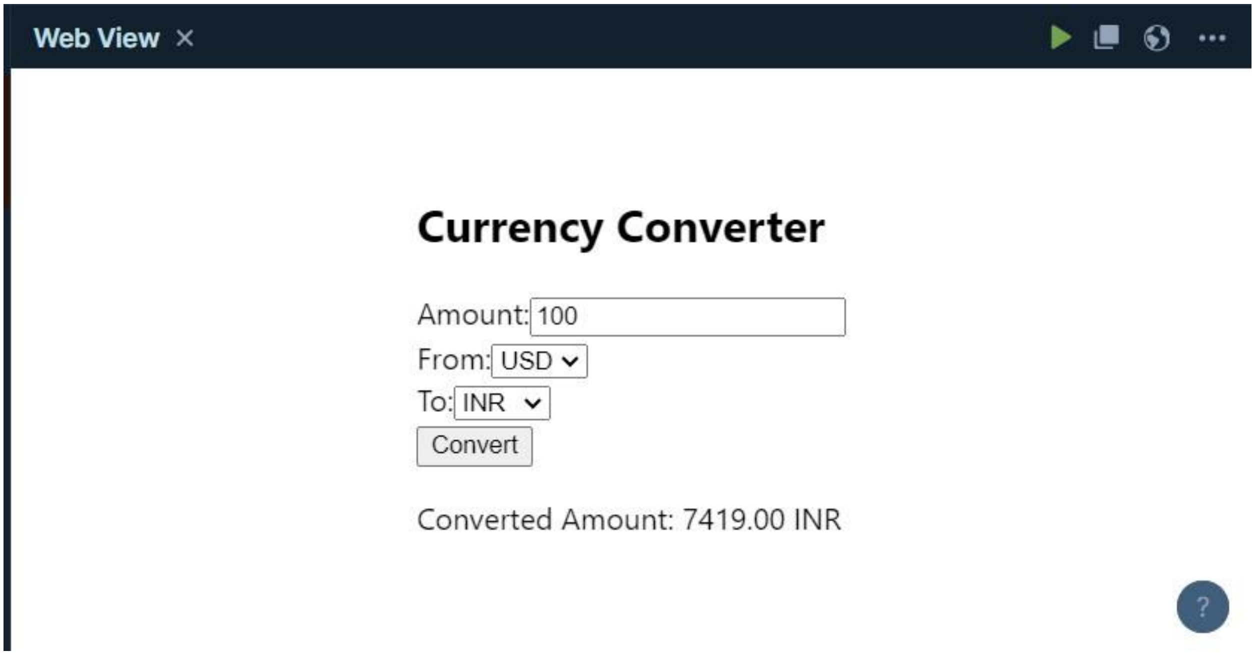
Output



Currency Converter

Amount: 1000
From: INR
To: EUR
Convert

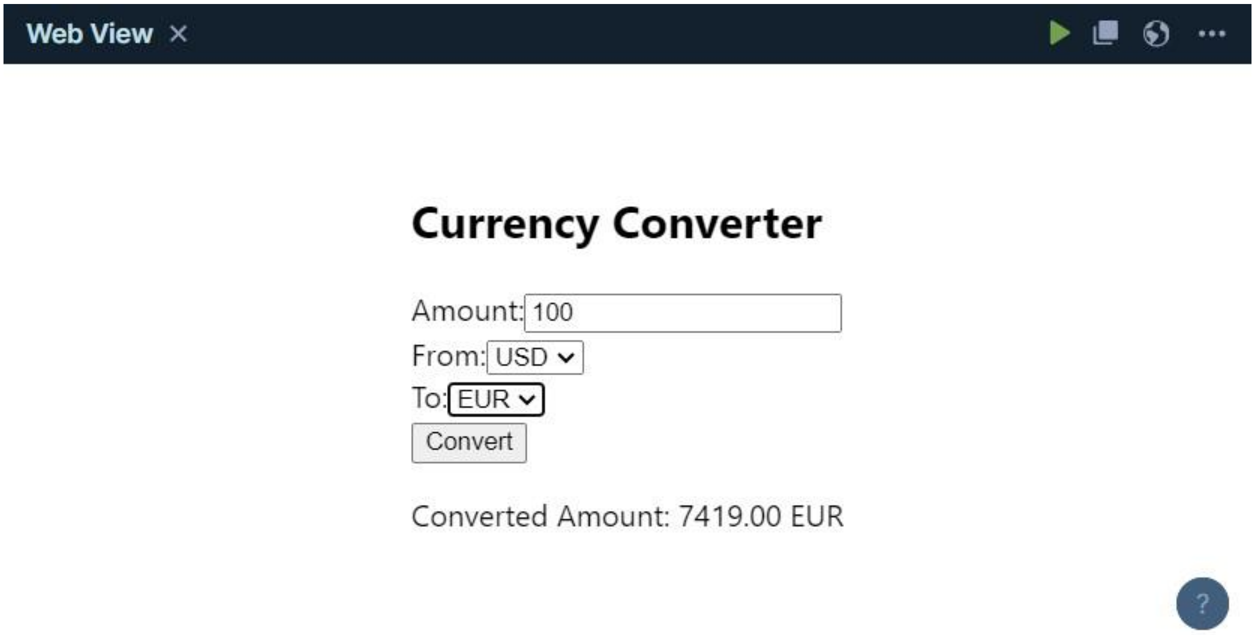
Converted Amount: 12.00 EUR



Currency Converter

Amount: 100
From: USD
To: INR
Convert

Converted Amount: 7419.00 INR



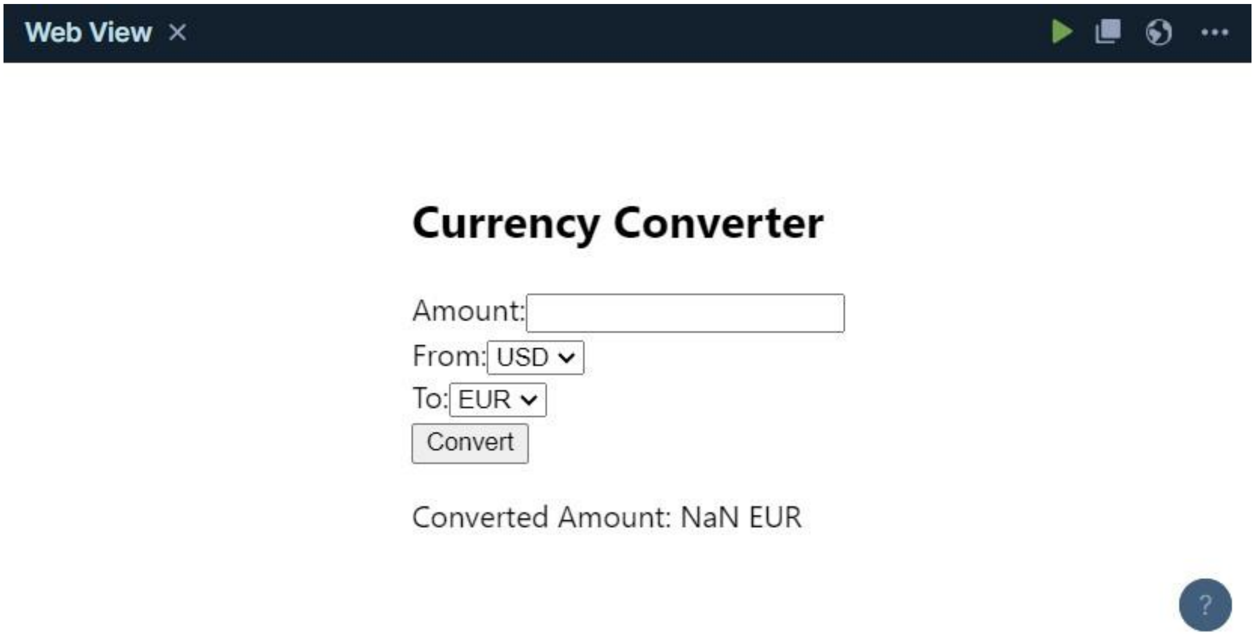
Currency Converter

Amount: 100

From: USD

To: EUR

Converted Amount: 7419.00 EUR



Currency Converter

Amount:

From: USD

To: EUR

Converted Amount: NaN EUR

Question 2

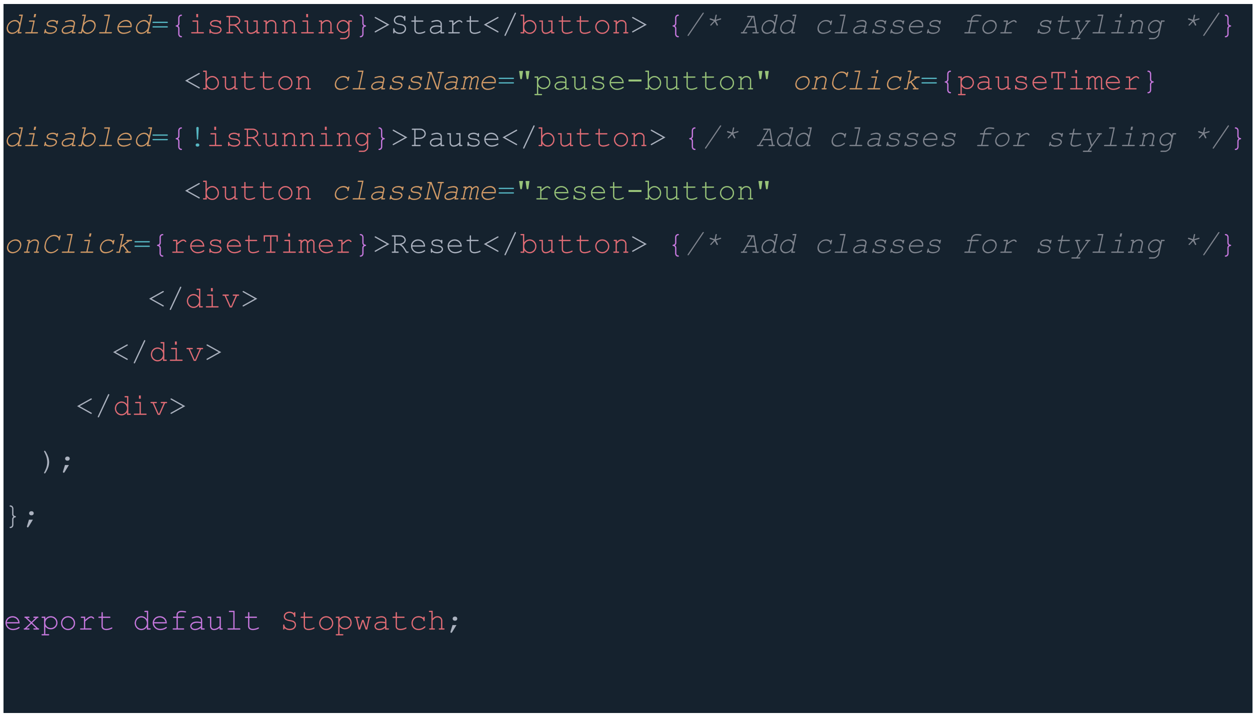
index.jsx

```
import React from 'react';
import ReactDOM from 'react-dom';
import App from './App';

ReactDOM.render(<App />, document.getElementById('root'));
```

App.jsx

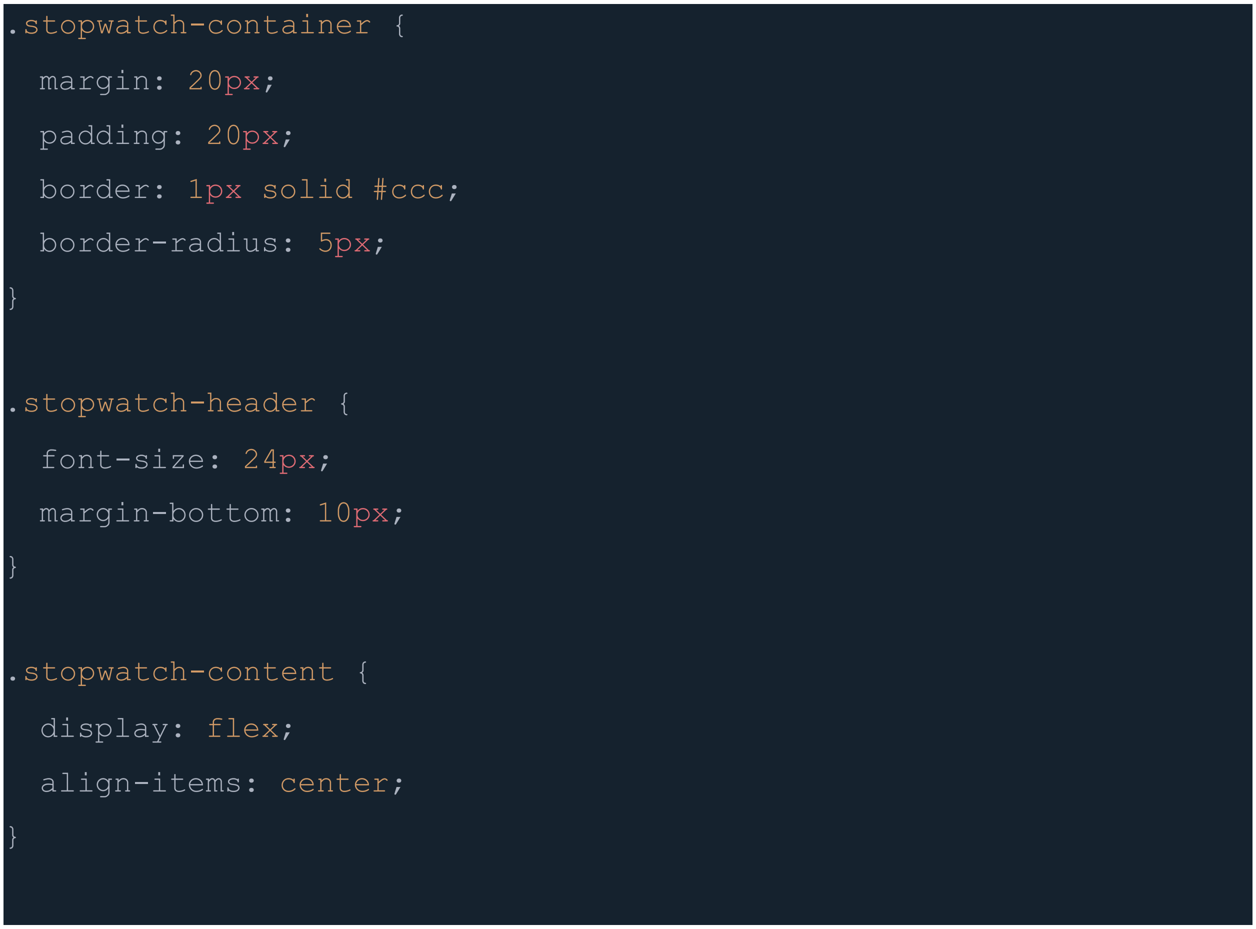
```
import React, { useState, useEffect } from 'react';


const Stopwatch = () => {
  const [time, setTime] = useState(0);
  const [isRunning, setIsRunning] = useState(false);

  useEffect(() => {
    let intervalId;

    if (isRunning) {
      intervalId = setInterval(() => {
        setTime((prevTime) => prevTime + 1);
      }, 1000);
    } else {
      clearInterval(intervalId);
    }

    return () => clearInterval(intervalId);
  }, [isRunning]);

```

```
  const startTimer = () => {
    setIsRunning(true);
  };

  const pauseTimer = () => {
    setIsRunning(false);
  };

  const resetTimer = () => {
    setTime(0);
    setIsRunning(false);
  };

  const formatTime = (time) => {
    const minutes = Math.floor(time / 60);
    const seconds = time % 60;
   return `${minutes < 10 ? '0' : ''}${minutes}:${seconds < 10 ? '0' : ''}${seconds}`;
  };

  return (
    <div className="stopwatch-container"> {/* Add a class for styling */}
      <h2 className="stopwatch-header">Stopwatch</h2> {/* Add a class for styling */}
      <div className="stopwatch-content"> {/* Add a class for styling */}
       <p className="stopwatch-time">{formatTime(time)}</p> {/* Add a class for styling */}
        <div className="button-group"> {/* Add a class for styling */}
          <button className="start-button" onClick={startTimer}
```



```
disabled={isRunning}>Start</button> {/* Add classes for styling */}
          <button className="pause-button" onClick={pauseTimer}
disabled={!isRunning}>Pause</button> {/* Add classes for styling */}
          <button className="reset-button"
onClick={resetTimer}>Reset</button> {/* Add classes for styling */}
        </div>
      </div>
    </div>
  );
};

export default Stopwatch;
```

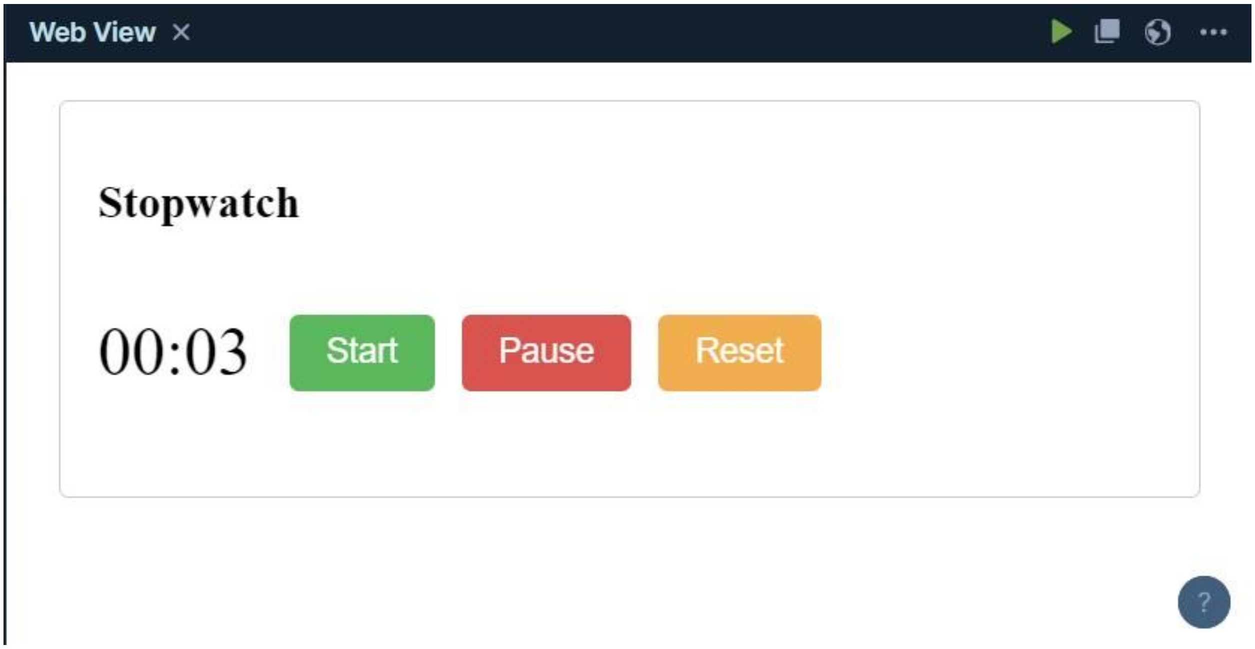
CSS File



```
.stopwatch-container {
  margin: 20px;
  padding: 20px;
  border: 1px solid #ccc;
  border-radius: 5px;
}

.stopwatch-header {
  font-size: 24px;
  margin-bottom: 10px;
}

.stopwatch-content {
  display: flex;
  align-items: center;
}
```

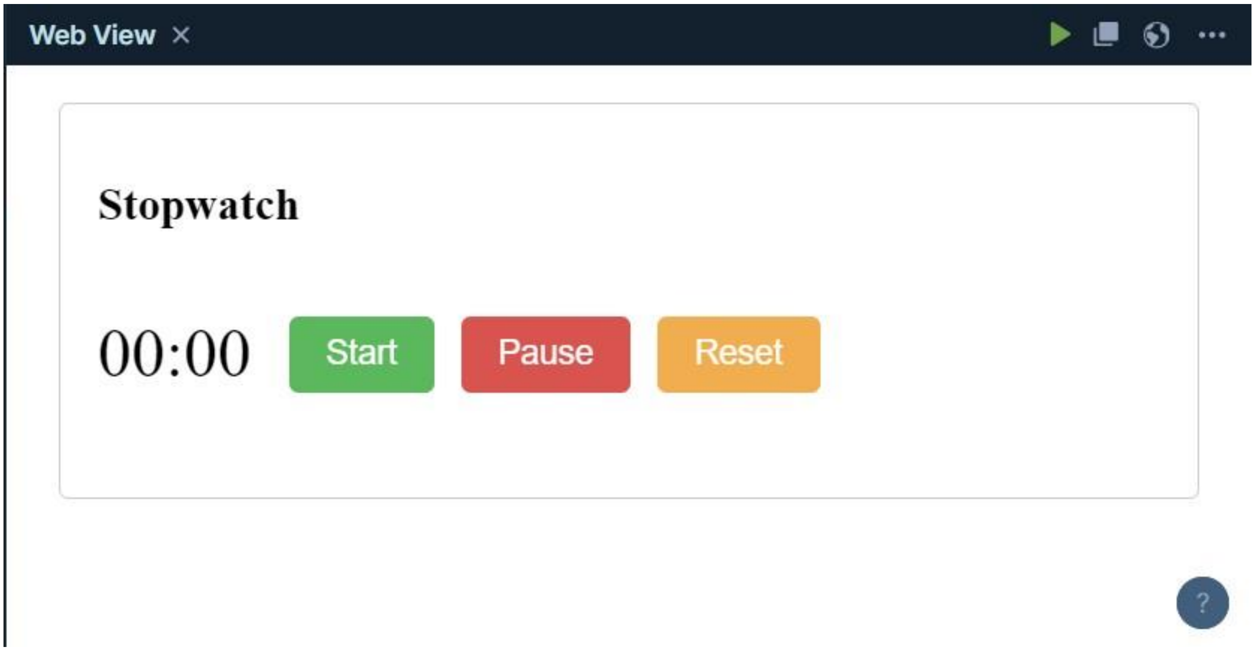
```
.stopwatch-time {
  font-size: 36px;
  margin-right: 20px;
}

.button-group button {
  font-size: 18px;
  padding: 10px 20px;
  margin-right: 10px;
  border: none;
  border-radius: 5px;
  cursor: pointer;
}

.start-button {
  background-color: #5cb85c;
  color: #fff;
}

.pause-button {
  background-color: #d9534f;
  color: #fff;
}

.reset-button {
  background-color: #f0ad4e;
  color: #fff;
}
```

Output



Stopwatch

00:03



Stopwatch

00:00