

Lab 8

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Question 1

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 } 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: {
      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>
            </select>
        </div>
    </div>
);

```

```

        <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:

From:

To:

Converted Amount: 12.00 EUR

?

Currency Converter

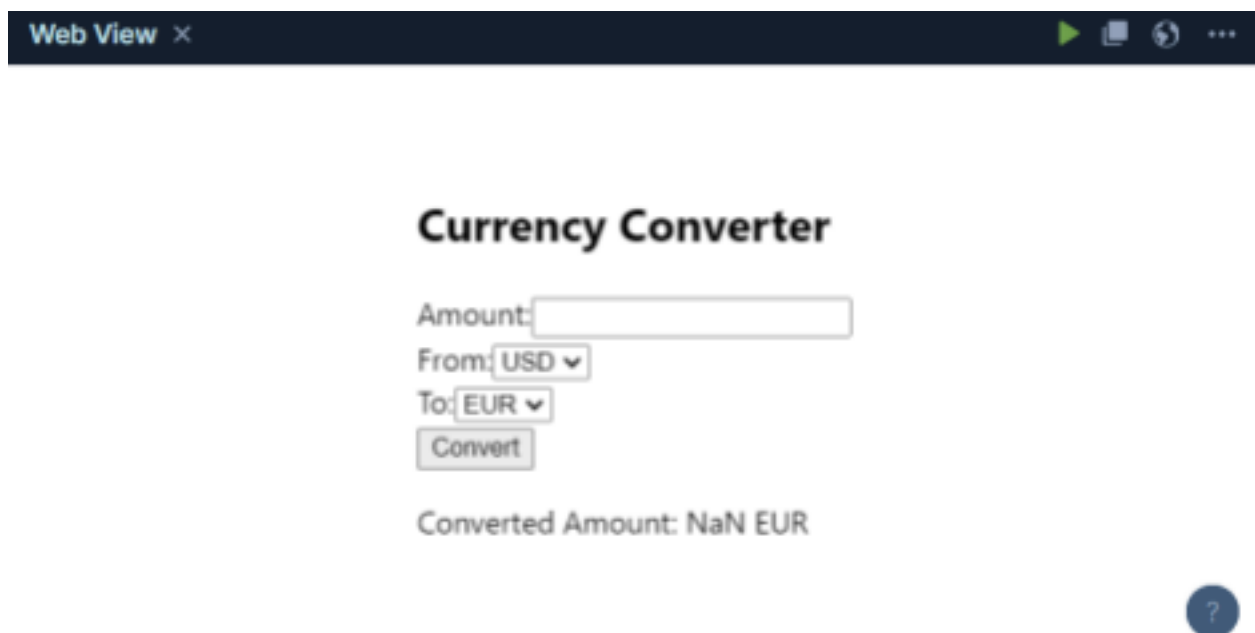
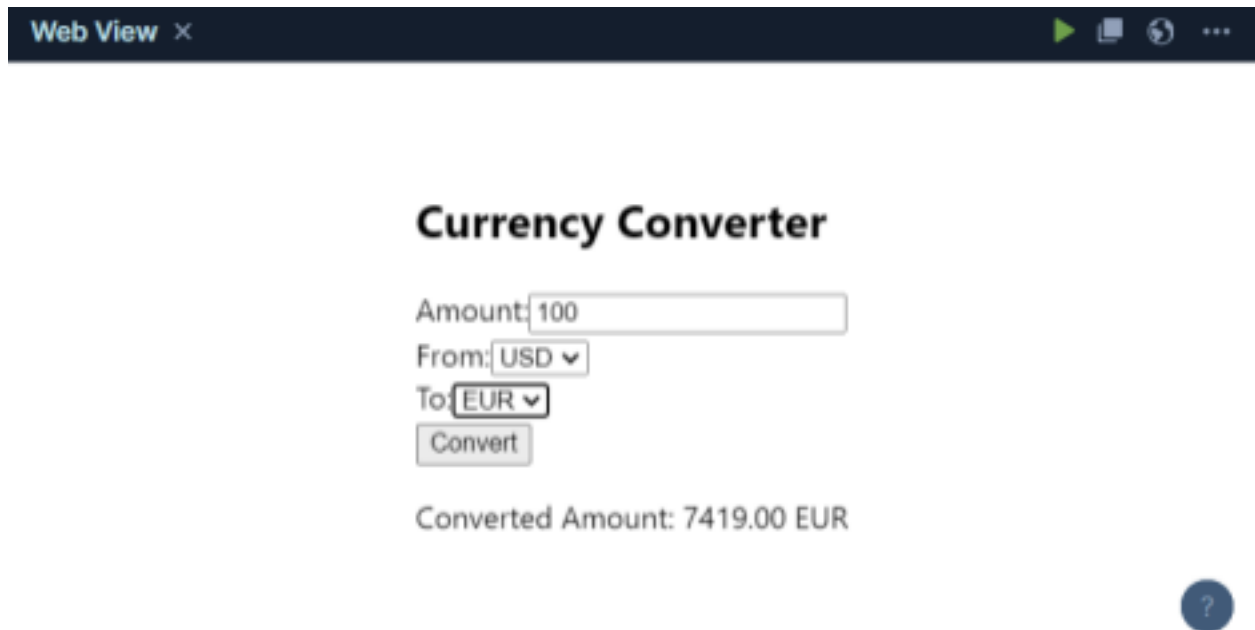
Amount:

From:

To:

Converted Amount: 7419.00 INR

?



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

