Assignment

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1Q.)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('');

  const exchangeRate = 0.85;

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

  const
handleFromCurrencyChange = (e)
=> {

setFromCurrency(e.target.value);
```

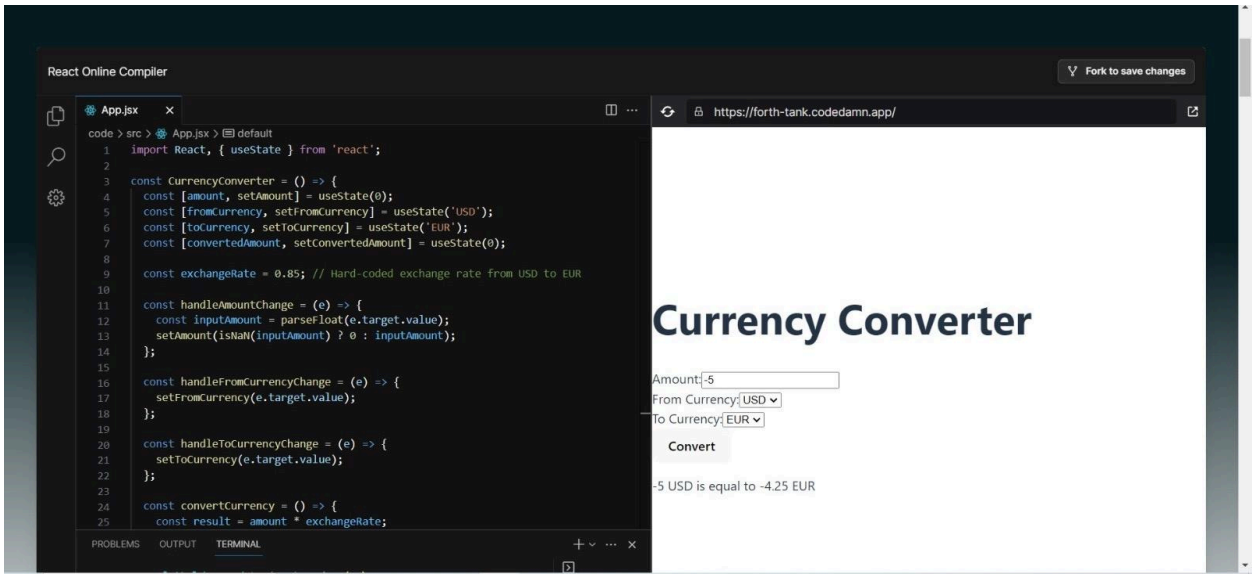
```
  };

  const handleToCurrencyChange
= (e) => {
    setToCurrency(e.target.value);
  };

  const convertCurrency = () => {
    const converted =
parseFloat(amount) *
exchangeRate;

setConvertedAmount(converted.to
Fixed(2));
  };
```

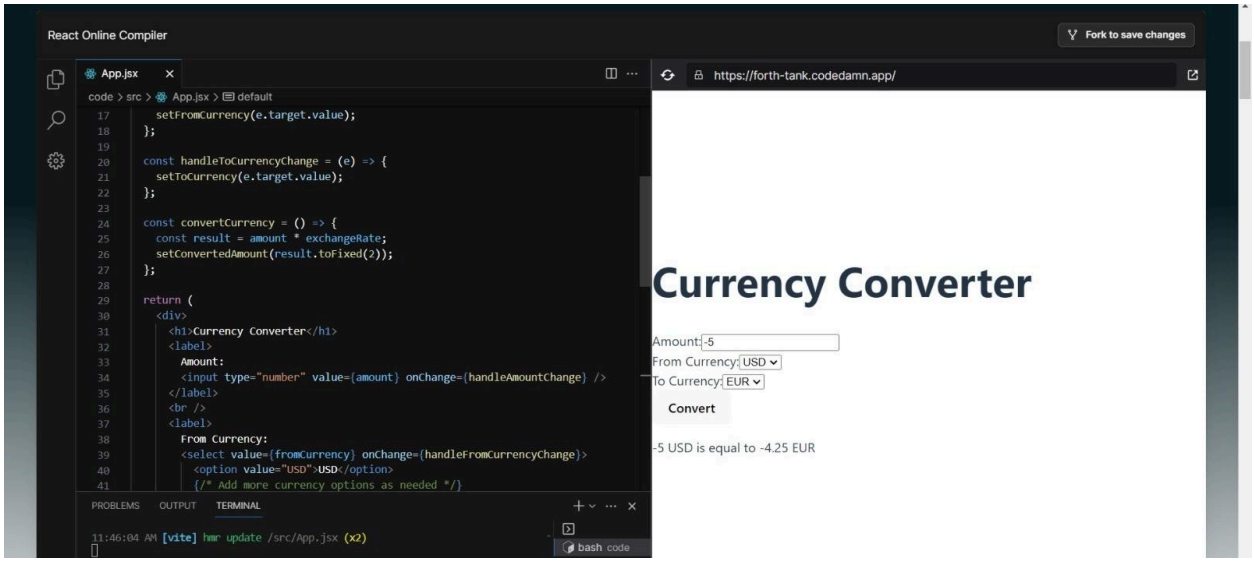
```
  return (
    <div>
      <h2>Currency Converter</h2>
      <div>
        <label>
          Amount:
          <input type="number"
value={amount}
onChange={handleAmountChange
} />
        </label>
      </div>
      <div>
        <label>
          From Currency:
```

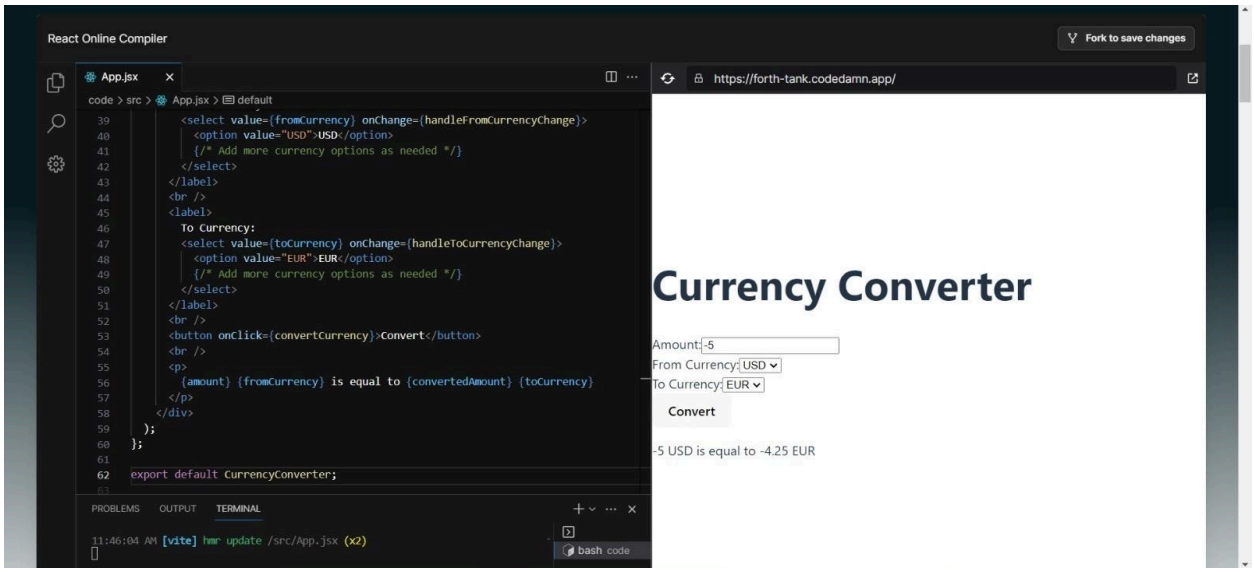
```
          <select
value={fromCurrency}
onChange={handleFromCurrency
Change}>
            <option
value="USD">USD</option>

          </select>
        </label>
      </div>
      <div>
        <label>
          To Currency:
          <select value={toCurrency}
onChange={handleToCurrencyCha
nge}>
```

```
            <option
value="EUR">EUR</option>

          </select>
        </label>
      </div>
      <button
onClick={convertCurrency}>Conve
rt</button>
      {convertedAmount && (
        <div>
          <h3>Converted
Amount:</h3>
          <p>{convertedAmount}
{toCurrency}</p>
        </div>
```

```
      )}
    </div>
  );
};

export default CurrencyConverter;
```







2Q.)import React, { useState, useRef } from 'react';

const Stopwatch = () => {

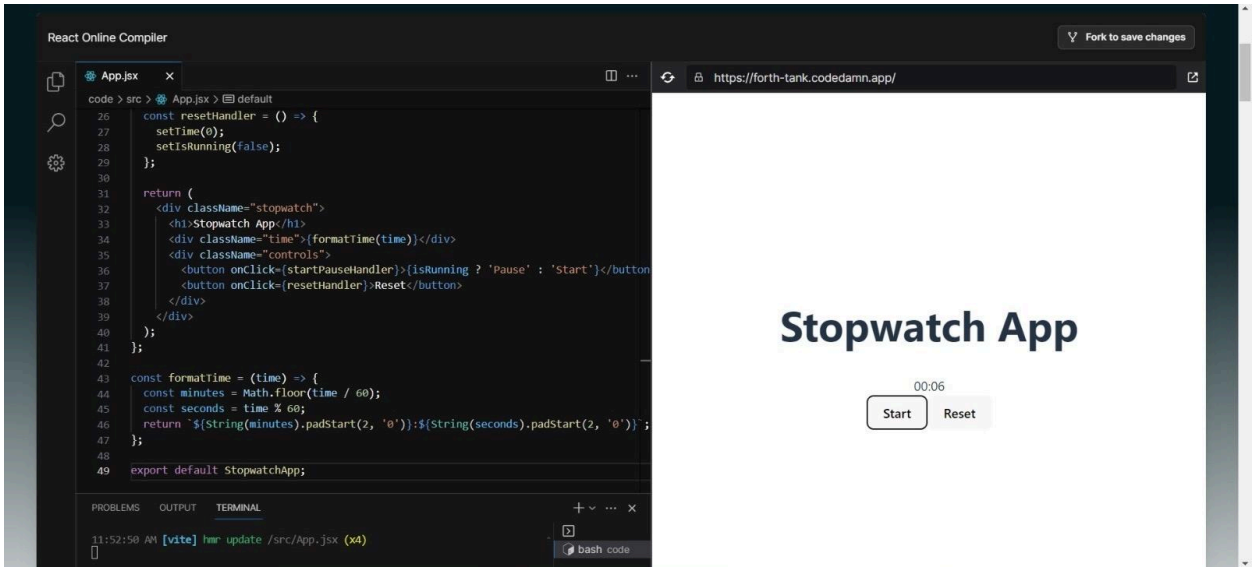
```
  const [isRunning, setIsRunning] =
useState(false);
  const [elapsedTime,
setElapsedTime] = useState(0);
  const intervalRef = useRef(null);

  const startTimer = () => {
    setIsRunning(true);
    intervalRef.current =
setInterval(() => {

setElapsedTime((prevElapsedTime
) => prevElapsedTime + 10);
    }, 10);
  };
```

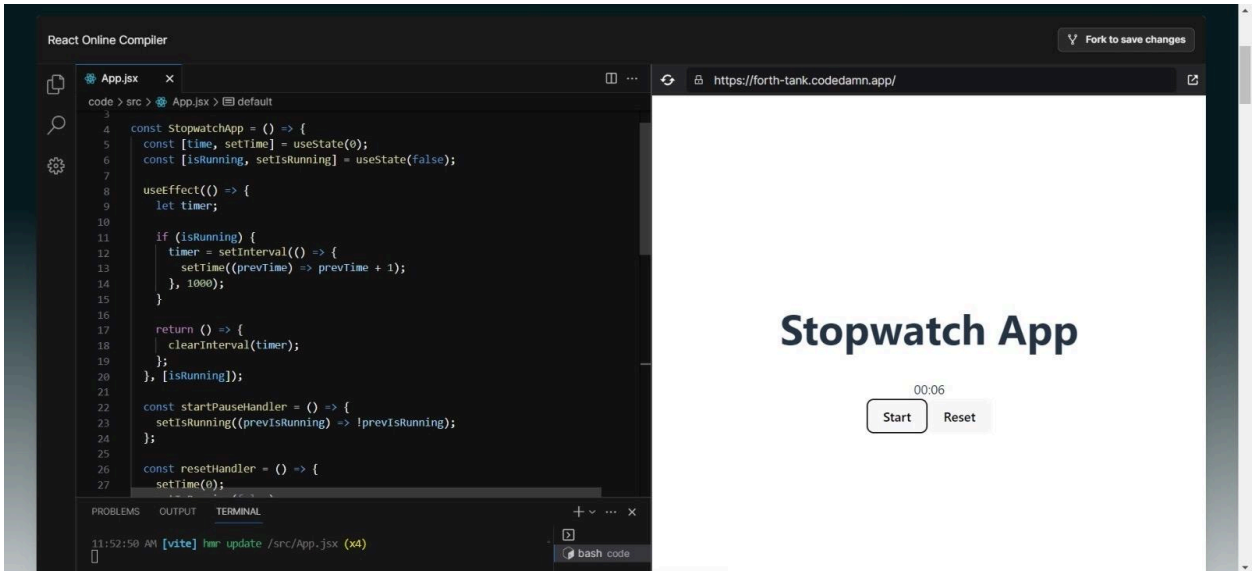
```
  const pauseTimer = () => {
    setIsRunning(false);

clearInterval(intervalRef.current);
  };

  const resetTimer = () => {
    setIsRunning(false);

clearInterval(intervalRef.current);
    setElapsedTime(0);
  };

  const formatTime = (time) => {
    const minutes = Math.floor(time
/ 60000);
```

```
    const seconds =
Math.floor((time % 60000) / 1000);
    const milliseconds =
Math.floor((time % 1000) / 10);

    return
`${minutes.toString().padStart(2,
'0')}:${seconds
      .toString()
      .padStart(2,
'0')}.${milliseconds.toString().padSt
art(2, '0')}`;
  };

  return (
    <div>
```

```
      <h2>Stopwatch</h2>

<p>{formatTime(elapsedTime)}</p
>
      <div>
        {!isRunning ? (
          <button
onClick={startTimer}>Start</button
>
        ) : (
          <button
onClick={pauseTimer}>Pause</but
ton>
        )}
```

```
        <button
onClick={resetTimer}>Reset</butto
n>
      </div>
    </div>
  );
};

export default Stopwatch;
```





3Q.)// App.js

```
import React, { useState, useEffect
} from 'react';
import firebase from 'firebase/app';
import 'firebase/database';

import ConversationList from
'./ConversationList';
```

```
import ChatInterface from
'./ChatInterface';
import MessageInput from
'./MessageInput';

// Initialize Firebase
const firebaseConfig = {
  // Your Firebase config details
};

if (!firebase.apps.length) {

firebase.initializeApp(firebaseConfi
g);
}
```

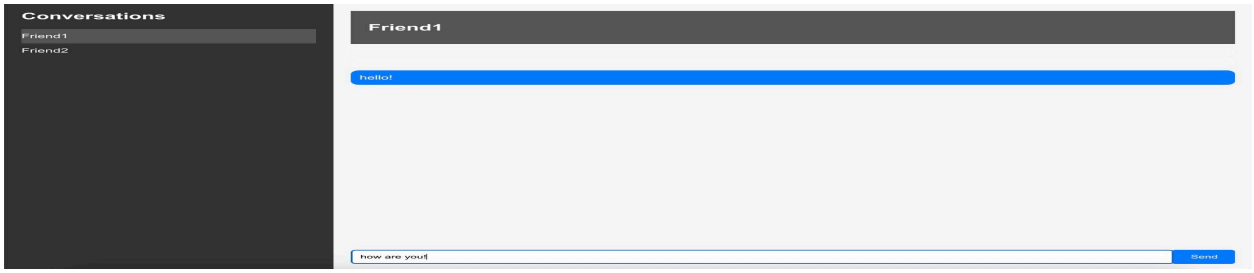
```
const App = () => {
  const [selectedConversation,
setSelectedConversation] =
useState(null);
  const [messages, setMessages]
= useState([]);

  useEffect(() => {
    const conversationsRef =
firebase.database().ref('conversati
ons');
    conversationsRef.on('value',
(snapshot) => {
      // Update conversation list
    });
```

```
    // Clean up listener
    return () =>
conversationsRef.off('value');
  }, []);

  const handleConversationSelect
= (conversationId) => {
    // Set selected conversation
  };

  return (
    <div>
      <ConversationList
        conversations={/*
Conversation data */}
```

```
onSelect={handleConversationSel
ect}
      />
      <ChatInterface
messages={messages} />
      <MessageInput
conversationId={selectedConversa
tion} />
    </div>
  );
};

export default App;
```


Conversations
Friend1
Friend2
Select a conversation to start chatting


Conversations
Friend1
Friend2
Friend1
hello!
Type your message...
Send


Conversations
Friend1
Friend2
Friend1
hello!
how are you!
Send


Conversations
Friend1
Friend2
Friend1
hello!
how are you!
Type your message...
Send


Conversations
Friend1
Friend2
Friend1
hello!
how are you!
Type your message...
Send