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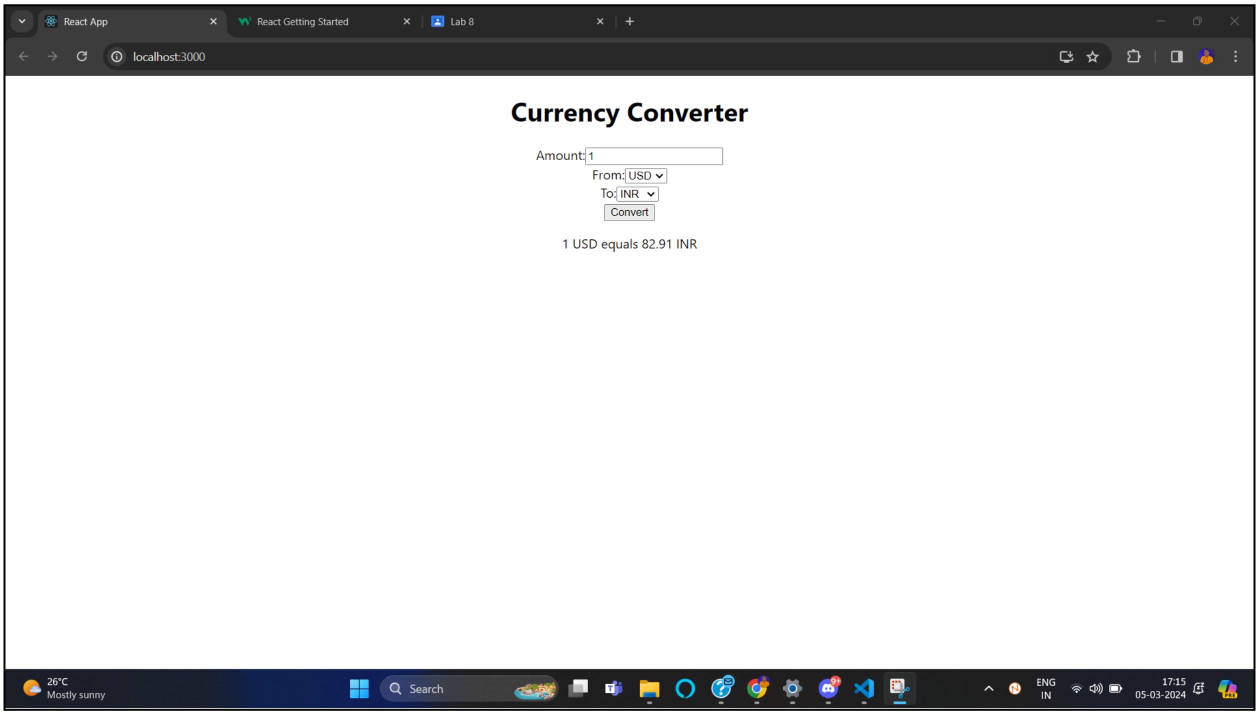
Lab-8

1.

```
import React, { useState } from 'react';
import './App.css';

function App() {
  const [amount, setAmount] = useState('');
  const [fromCurrency, setFromCurrency] = useState('USD');
  const [toCurrency, setToCurrency] = useState('INR');
  const [convertedAmount, setConvertedAmount] = useState(null);

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

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

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

  const handleConvert = () => {
    let exchangeRate;
    if (fromCurrency === 'USD' && toCurrency === 'INR') {
      exchangeRate = 82.91;
    } else if (fromCurrency === 'INR' && toCurrency === 'USD') {
      exchangeRate = 1 / 82.91;
    } else {
      exchangeRate = 1;
    }
    const converted = parseFloat(amount) * exchangeRate;
    setConvertedAmount(converted.toFixed(2));
  };
  return (
    <div className="App">
      <h1>Currency Converter</h1>
      <div>
        <label>
          Amount:
          <input type="number" value={amount}
onChange={handleAmountChange} />
        </label>
      </div>
      <div>
        <label>
          From:
          <select value={fromCurrency}
onChange={handleFromCurrencyChange}>
            <option value="USD">USD</option>
            <option value="INR">INR</option>
          </select>
        </label>
      </div>
      <div>
        <label>
          To:
          <select value={toCurrency} onChange={handleToCurrencyChange}>
            <option value="USD">USD</option>
            <option value="INR">INR</option>
          </select>
        </label>
      </div>
      <button onClick={handleConvert}>Convert</button>
      {convertedAmount && (
        <p>{amount} {fromCurrency} equals {convertedAmount}
{toCurrency}</p>
      )}
    </div>
  );
}

export default App;
```



Currency Converter

Amount: 1

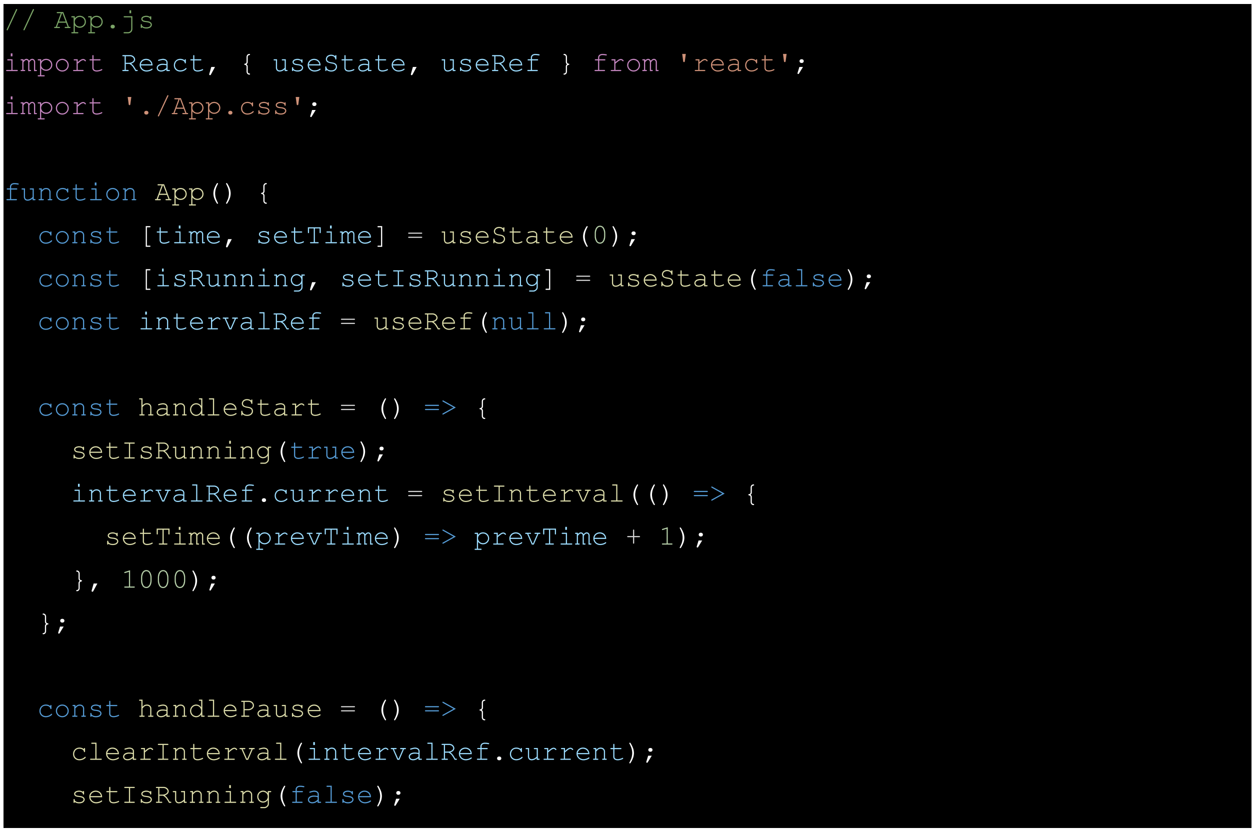
From: USD

To: INR

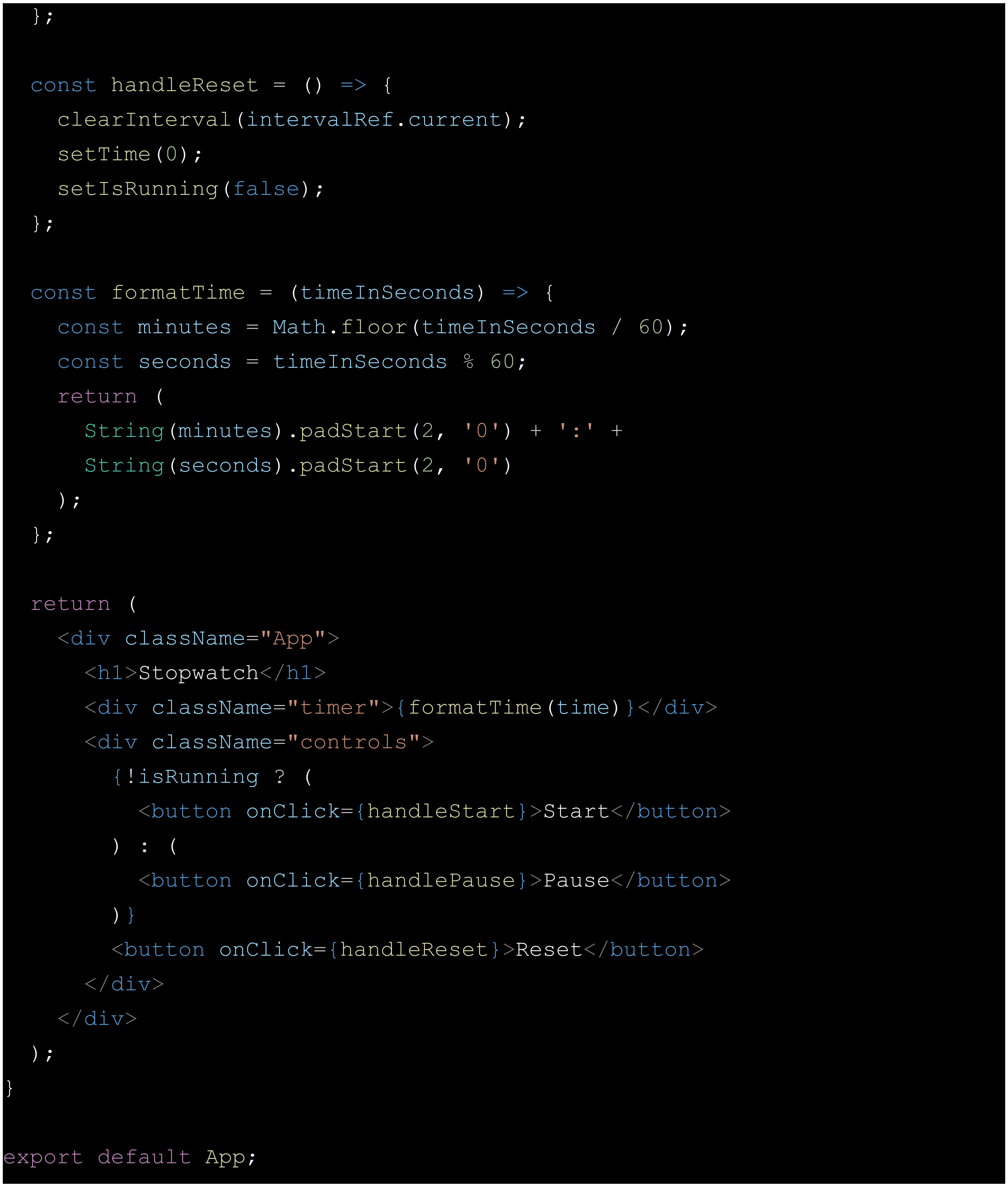
Convert

1 USD equals 82.91 INR

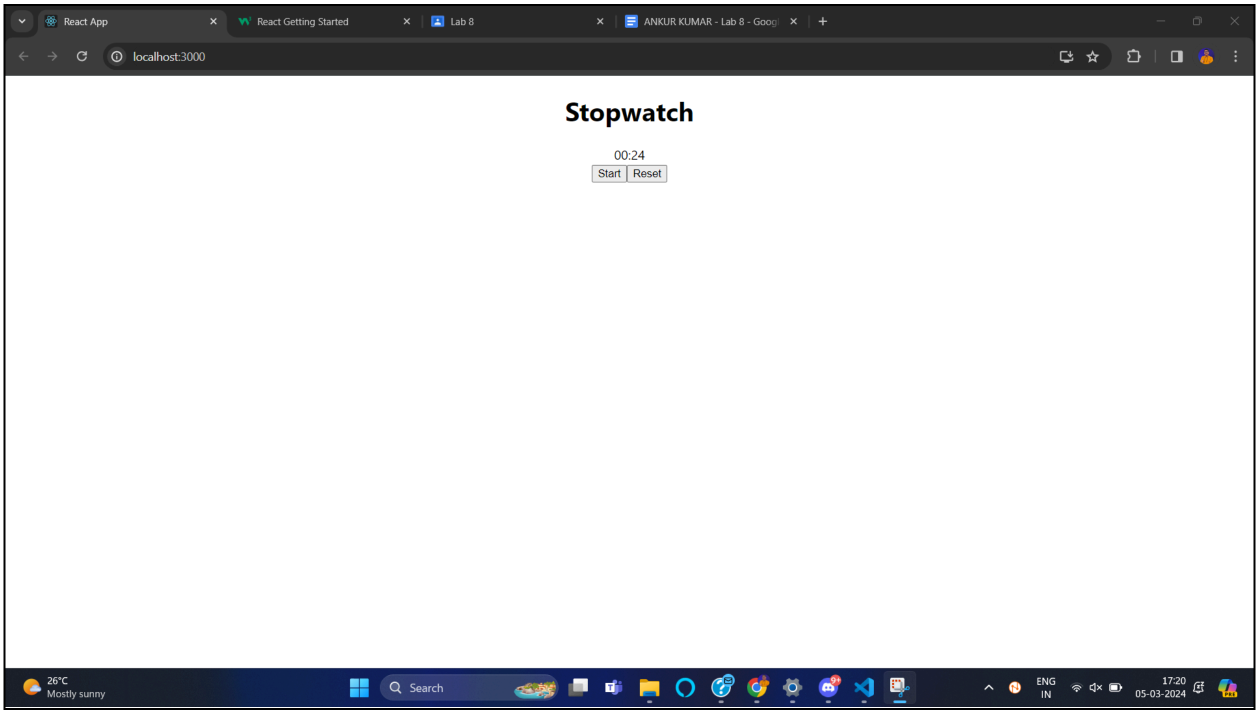
2.



```
// App.js
import React, { useState, useRef } from 'react';
import './App.css';

function App() {
  const [time, setTime] = useState(0);
  const [isRunning, setIsRunning] = useState(false);
  const intervalRef = useRef(null);

  const handleStart = () => {
    setIsRunning(true);
    intervalRef.current = setInterval(() => {
      setTime((prevTime) => prevTime + 1);
    }, 1000);
  };

  const handlePause = () => {
    clearInterval(intervalRef.current);
    setIsRunning(false);
```



```
  };

  const handleReset = () => {
    clearInterval(intervalRef.current);
    setTime(0);
    setIsRunning(false);
  };

  const formatTime = (timeInSeconds) => {
    const minutes = Math.floor(timeInSeconds / 60);
    const seconds = timeInSeconds % 60;
    return (
      String(minutes).padStart(2, '0') + ':' +
      String(seconds).padStart(2, '0')
    );
  };

  return (
    <div className="App">
      <h1>Stopwatch</h1>
      <div className="timer">{formatTime(time)}</div>
      <div className="controls">
        {!isRunning ? (
          <button onClick={handleStart}>Start</button>
        ) : (
          <button onClick={handlePause}>Pause</button>
        )}
        <button onClick={handleReset}>Reset</button>
      </div>
    </div>
  );
}

export default App;
```

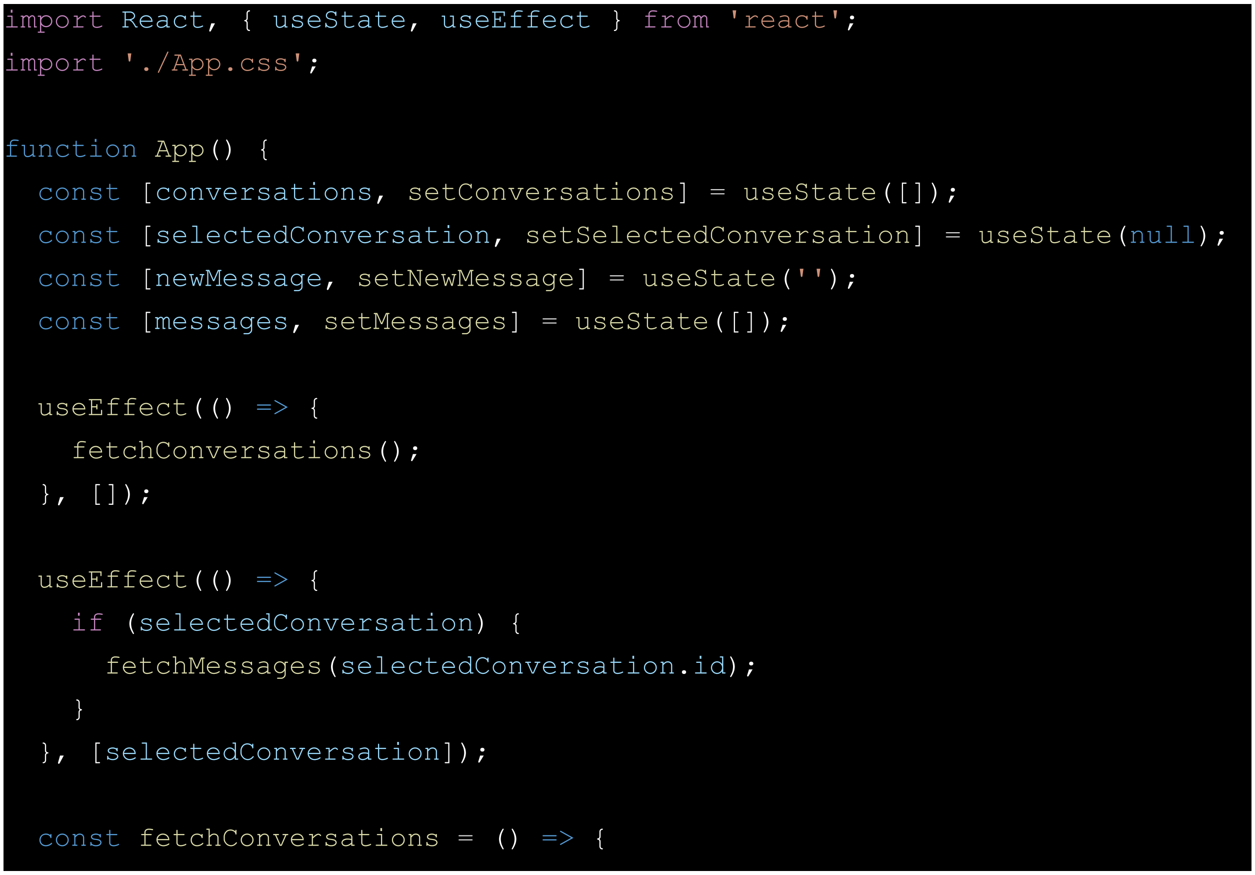


Stopwatch

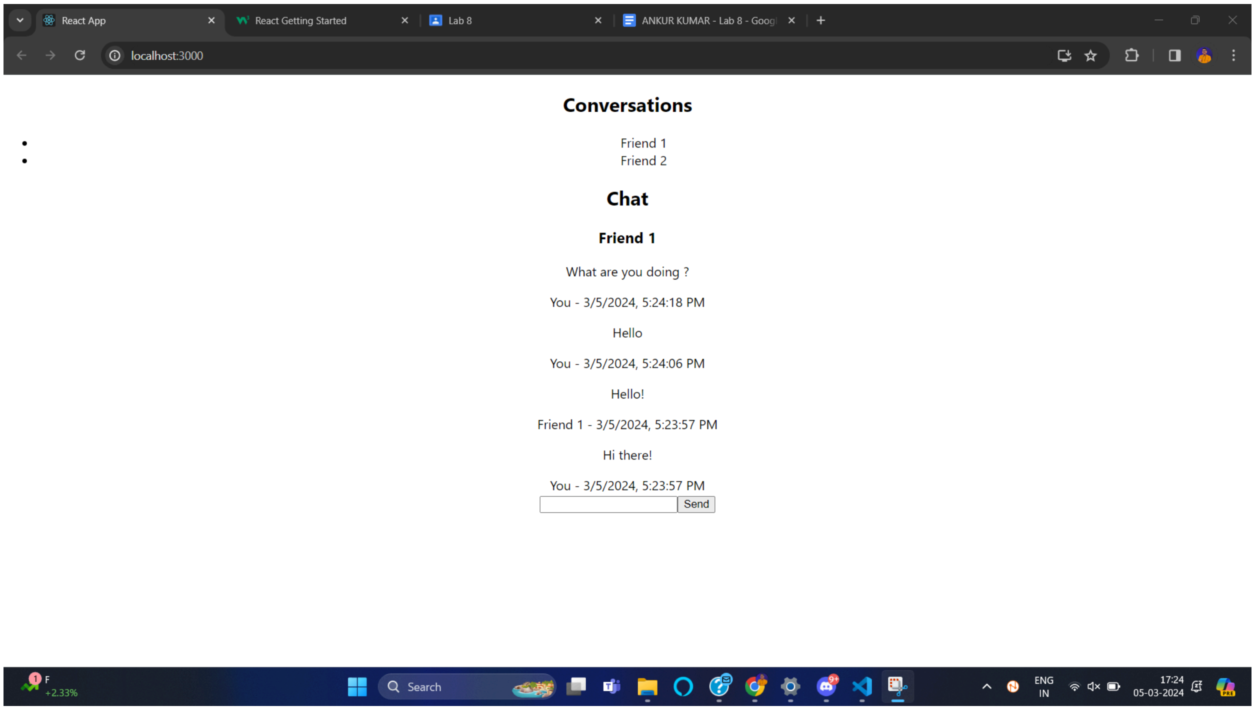
00:24

Start Reset

3.



```
import React, { useState, useEffect } from 'react';
import './App.css';

function App() {
  const [conversations, setConversations] = useState([]);
  const [selectedConversation, setSelectedConversation] = useState(null);
  const [newMessage, setNewMessage] = useState('');
  const [messages, setMessages] = useState([]);

  useEffect(() => {
    fetchConversations();
  }, []);

  useEffect(() => {
    if (selectedConversation) {
      fetchMessages(selectedConversation.id);
    }
  }, [selectedConversation]);

  const fetchConversations = () => {
    const mockConversations = [
      { id: 1, name: 'Friend 1' },
      { id: 2, name: 'Friend 2' },
    ];
    setConversations(mockConversations);
  };

  const fetchMessages = (conversationId) => {
    const mockMessages = [
      { id: 1, text: 'Hello!', sender: 'Friend 1', timestamp: new Date()
},
      { id: 2, text: 'Hi there!', sender: 'You', timestamp: new Date() },
    ];
    setMessages(mockMessages);
  };

  const handleConversationClick = (conversation) => {
    setSelectedConversation(conversation);
  };

  const handleMessageSend = () => {
    const message = { id: messages.length + 1, text: newMessage, sender:
'You', timestamp: new Date() };
    setMessages([message, ...messages]);
    setNewMessage('');
  };

  return (
    <div className="App">
      <div className="sidebar">
        <h2>Conversations</h2>
        <ul>
          {conversations.map((conversation) => (
            <li key={conversation.id} onClick={() =>
handleConversationClick(conversation)}>
              {conversation.name}
            </li>
          ))}
        </ul>
      </div>
      <div className="chat">
        <h2>Chat</h2>
        {selectedConversation && (
          <div>
            <h3>{selectedConversation.name}</h3>
            <div className="messages">
              {messages.map((message) => (
                <div key={message.id} className={message.sender === 'You'
? 'sent' : 'received'}>
                  <p>{message.text}</p>
                  <span>{message.sender} -
{message.timestamp.toLocaleString()}</span>
                </div>
              ))}
            </div>
            <div className="message-input">
              <input type="text" value={newMessage} onChange={(e) =>
setNewMessage(e.target.value)} />
              <button onClick={handleMessageSend}>Send</button>
            </div>
          </div>
        )}
      </div>
    </div>
  );
}

export default App;
```



Conversations

- Friend 1
- Friend 2

Chat

Friend 1

What are you doing ?

You - 3/5/2024, 5:24:18 PM

Hello

You - 3/5/2024, 5:24:06 PM

Hello!

Friend 1 - 3/5/2024, 5:23:57 PM

Hi there!

You - 3/5/2024, 5:23:57 PM