LAB – 9

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T1.

```html
<!DOCTYPE html>
<html lang="en">
<head>
   <meta charset="UTF-8">
   <meta name="viewport" content="width=device-width, initial-scale=1.0">
   <title>Currency Converter</title>
   <script src="https://cdn.jsdelivr.net/npm/vue@2"></script>
</head>
<body>
   <div id="app">
     <h1>Currency Converter</h1>
     <div>
       <label for="amount">Enter Amount:</label>
       <input type="number" id="amount" v-model="amount" @input="convertCurrency">
     </div>
     <div>
       <label for="from">From:</label>
       <select id="from" v-model="fromCurrency" @change="convertCurrency">
         <option value="USD">USD</option>
         <option value="EUR">EUR</option>
         <option value="GBP">GBP</option>
       </select>
     </div>
     <div>
       <label for="to">To:</label>
```

```html
    <select id="to" v-model="toCurrency" @change="convertCurrency">
      <option value="USD">USD</option>
      <option value="EUR">EUR</option>
      <option value="GBP">GBP</option>
    </select>
  </div>
  <div>
    <p>{{ amount }} {{ fromCurrency }} equals {{ convertedAmount }} {{ toCurrency }}</p>
  </div>
</div>

<script>
new Vue({
    el: '#app',        data:
{          amount: 0,
fromCurrency: 'USD',
toCurrency: 'USD',
exchangeRates: {
        USD: {
          EUR: 0.85,
          GBP: 0.73
        },
        EUR: {
          USD: 1.18,
          GBP: 0.86
        },
        GBP: {
          USD: 1.38,
          EUR: 1.16
        }
      },
```

```
        convertedAmount: 0

    },

    methods: {          convertCurrency: function () {          const rate
= this.exchangeRates[this.fromCurrency][this.toCurrency];

this.convertedAmount = (this.amount * rate).toFixed(2);

        }

    }

  });

</script>

</body>

</html>
```


T2.

```
<!DOCTYPE html>

<html lang="en">

<head>

  <meta charset="UTF-8">
```

```html
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Stopwatch</title>
    <script src="https://cdn.jsdelivr.net/npm/vue@2"></script>
</head>
<body>
    <div id="app">
        <h1>Stopwatch</h1>
        <div>
            <p>{{ formattedTime }}</p>
        </div>
        <div>
            <button @click="startStopwatch" v-if="!isRunning">Start</button>
            <button @click="pauseStopwatch" v-if="isRunning">Pause</button>
            <button @click="resetStopwatch">Reset</button>
        </div>
    </div>

    <script>
new Vue({
        el: '#app',
data: {
isRunning: false,
elapsedTime: 0
        },
        computed: {
formattedTime: function () {
const minutes =
Math.floor(this.elapsedTime /
60000);          const seconds =
((this.elapsedTime % 60000) /
1000).toFixed(2);          return
```
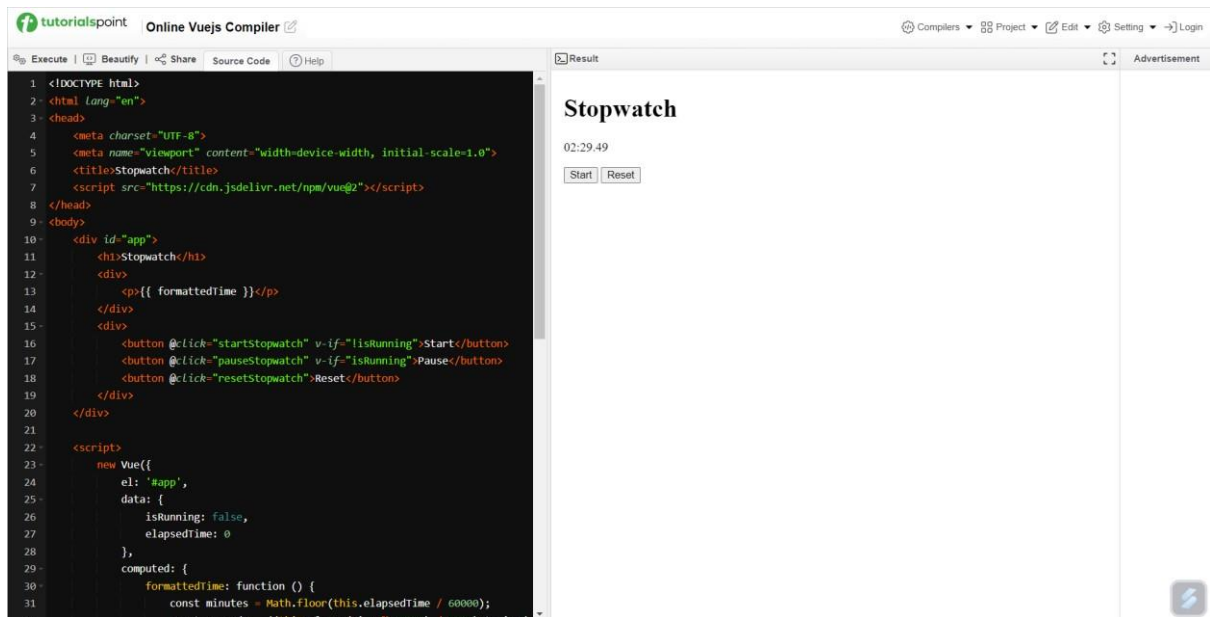
```
`${minutes < 10 ? '0' :

''}${minutes}:${seconds < 10 ? '0' :

''}${seconds}`;
            }
        },
        methods: {
startStopwatch: function () {
                if (!this.isRunning) {                    this.isRunning = true;

this.startTime = Date.now() - this.elapsedTime;

this.timer = setInterval(this.updateElapsedTime, 10);
                }
        },
        pauseStopwatch: function () {
if (this.isRunning) {

this.isRunning = false;

clearInterval(this.timer);
            }
        },
        resetStopwatch: function () {
this.isRunning = false;

clearInterval(this.timer);

this.elapsedTime = 0;
        },
        updateElapsedTime: function () {
this.elapsedTime = Date.now() - this.startTime;
        }
    }
    });
    </script>
</body>
</html>
```

T3.

```html
<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Messaging App</title>

    <script src="https://cdn.jsdelivr.net/npm/vue@2"></script>

    <!-- Firebase -->

    <script src="https://www.gstatic.com/firebasejs/9.1.3/firebase-app.js"></script>

    <script src="https://www.gstatic.com/firebasejs/9.1.3/firebase-database.js"></script>

</head>

<body>

    <div id="app">

        <h1>Messaging App</h1>

        <div class="conversation-list">

            <ul>
```

```html
        <li v-for="(conversation, index) in conversations" :key="index"
@click="selectConversation(conversation)">

            USER-01

        </li>

        <li v-for="(conversation, index) in conversations" :key="index"
@click="selectConversation(conversation)">

            USER-02

        </li>

      </ul>

    </div>

    <div v-if="selectedConversation">

      <h2>Conversations</h2>

      <div class="message-list">

        <div v-for="(message, index) in messages" :key="index">

          <p>USER-01:HELLO, HOW ARE YOU?</p>

          <p>USER-02:I AM FINE. WHAT ABOUT YOU?</p>

        </div>

      </div>

      <div class="message-input">

        <input type="text" v-model="newMessageText" placeholder="Type your message...">
<button @click="sendMessage">Send</button>

      </div>

    </div>

  </div>


  <script>

    // Initialize Firebase

const firebaseConfig = {

      // Your Firebase configuration

    };

    firebase.initializeApp(firebaseConfig);
```

```javascript
new Vue({
    el: '#app',
    data: {
        conversations: [
            { id: 1, name: 'Friend 1' },
            { id: 2, name: 'Friend 2' },
            // Add more conversations as needed
        ],
        selectedConversation: null,
        messages: [],          newMessageText:
''
    },
    mounted() {
        // Load initial conversation or set selectedConversation
        // Here, you can also handle authentication
    },
    methods: {
        selectConversation(conversation) {
            this.selectedConversation = conversation;
            this.loadMessages(conversation.id);
        },
        loadMessages(conversationId) {
            // Load messages from Firebase for the selected conversationId
            firebase.database().ref('messages/' + conversationId).on('value', (snapshot) => {
                this.messages = snapshot.val() || [];
            });
        },
        sendMessage() {                 if
(this.newMessageText.trim() === '') return;


            // Push the new message to Firebase
```

```
                firebase.database().ref('messages/' + this.selectedConversation.id).push({
sender: 'You', // You can add the sender's username here                    text:
this.newMessageText

            });


            // Clear the input field after sending the message
this.newMessageText = '';
        }
      }
    });
  </script>
</body>
</html>
```