

TME Solo

Aldan CREO MARINO

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1 Changes made

I had to change the following parts:

1. DB: Change the model to keep a list of the users who signal a message (repeated signals by the same user are allowed, because that way it's easier to test that the message is hidden; otherwise, we'd have to log in as 10 different users and signal the message from each account).
2. Server: Implement an endpoint (`/api/message/signal`) that allows the currently authenticated user to signal a message.
3. Client: Add a button to signal a message. Add the code to call the endpoint on the server when the user clicks the button. Add the code to conditionally hide a message if it has been signalled more than 10 times.

2 Code changed

2.1 DB

I use Mongoose in my project, so I had to change `server/src/entities/messages.js` to define the `Message` model as following:

```
1 const messageSchema = new mongoose.Schema({
2   text: {type: String, unique: false, required: true},
3   created: {type: Date, default: Date.now},
4   author: {type: mongoose.Schema.Types.ObjectId, ref: 'User'},
5   liked_by: [{type: mongoose.Schema.Types.ObjectId, ref: 'User'}],
6   signalled_by: [{type: mongoose.Schema.Types.ObjectId, ref: 'User'}],
7   parent: {type: mongoose.Schema.Types.ObjectId, ref: 'Message', required: false},
8 });
```

2.2 Server

The endpoint in `server/src/messageAPI.js`:

```
1   router.route("/signal").put(async (req, res) => {
2     try {
3       const msg = await Message.findById(req.body._id).exec();
4       if (!msg)
5         res.sendStatus(404);
6       else {
7         const index = msg.signalled_by.indexOf(req.session.current_user._id);
8         if (true) { // Allow for repeated signals, check if index === -1 to
9           // disable
10          msg.signalled_by.push(req.session.current_user._id);
11        }
12        await msg.save();
13        const transformed = await transform_msg(msg);
14        res.status(201).send(transformed);
15      }
16    } catch (e) {
17      console.error(e);
18      res.status(500).send(e);
19    }
20  })
```

In that same file, I also changed the method I use to serialize the message before sending it back to the client (so that they see the usernames and not the IDs of the signallers). This is only a small auxiliary change.

```

1 function transform_msg(msg) {
2   return (User.findById(msg.author).exec().then((author) =>
3     User.find({ _id: { $in: msg.liked_by } }).exec().then((likers) => {
4       return User.find({ _id: { $in: msg.signalled_by } }).exec().then((signallers)
5         => {
6           let signallersUsernames = []
7           for (let signallerId of msg.signalled_by) {
8             const signaller = signallers.find(s => s._id.equals(signallerId));
9             signallersUsernames.push(signaller.username);
10          }
11          return ({
12            author: author.username,
13            text: msg.text,
14            created: msg.created,
15            liked_by: likers.map(l => l.username),
16            parent: msg.parent,
17            _id: msg._id,
18            signalled_by: signallersUsernames, // If we used map() as above, then
19                                           // it would not keep repeated usernames
20          });
21        })
22      ));
23    });
24  });
25 }

```

2.3 Client

In client/src/feed/MessageComponent.js:

```

1 // Function to make the signal request
2 function signal(dispatch, _id) {
3   axios.put("/api/message/signal", { _id: _id }).then((resp) => {
4     dispatch(addMessage({ message: resp.data }));
5   });
6 }
7
8 function MessageComponent(props) {
9   const dispatch = useDispatch();
10  const liked = props.message.liked_by.includes(props.user.username);
11  const totalLikes = props.message.liked_by.length;
12  const signalled = props.message.signalled_by.includes(props.user.username);
13  const totalSignalled = props.message.signalled_by.length;
14
15  if (totalSignalled <= 10) { // The message has not been signalled more than 10 times
16    return (
17      <div className={["generalContainer", styles.commentContainer].join(" ")}>
18        <div className={["containerContent"]}
19          <div className={styles.commentInfoHeader}>
20            <div className={styles.commentCreationDate}>
21              {
22                props.message.created.toLocaleDateString('fr-FR', { weekday: '
23                  short', day: 'numeric', month: 'numeric', hour: 'numeric',
24                  minute: 'numeric' })
25              }
26            </div>
27            <Link to={"/user/" + props.message.author} className={styles.
28              commentUsername}>@{props.message.author}</Link>
29            <button className={["regularButton", "secondaryButton"].join(" ")}
30              onClick={() => {
31                if (!liked) {
32                  like(dispatch, props.message._id)
33                } else {
34                  dislike(dispatch, props.message._id)
35                }
36              }}>{liked ? " " : " "} {totalLikes}</button>
37
38            ///////////////////////////////////////////////////
39            // BUTTON TO SIGNAL AND COUNTER
40            ///////////////////////////////////////////////////
41            <button className={["regularButton", "secondaryButton"].join(" ")}
42              onClick={() => {

```

```

38         if (true) { // Allow repeated signals
39             signal(dispatch, props.message._id)
40         }
41     }}>{signalled ? " " : ""} {totalSignalled}</button>
42
43     </div>
44     <div className={styles.commentText}>{props.message.text}</div>
45 </div>
46 </div>
47 ); }
48 else { // If the message has more than 10 signals, don't show it
49     return (
50     <div className={["generalContainer", styles.commentContainer].join(" ")}>
51         <div className={"containerContent"}>
52             <div className={styles.commentInfoHeader}>
53                 <p>This message by <Link to={"/user/" + props.message.author}
54                     className={styles.commentUsername}>@{props.message.author}</Link>
55                     has {totalSignalled} signals, so it is not shown.</p>
56             </div>
57         </div>
58     </div>
59 )

```

2.3.1 Postman

I also modified the Postman collection to allow to test the API endpoint. I've joined it with the other modified files.