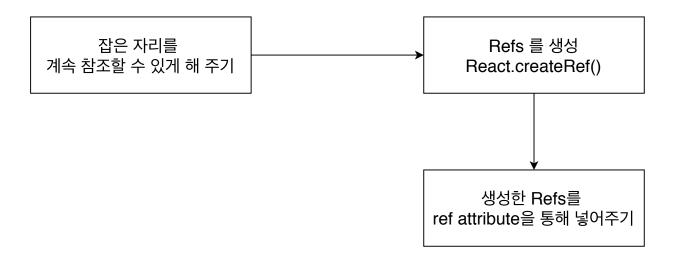
## 메시지 보낼 때 자동으로 스크롤 내려가게 하기



## **<sup>™</sup> Creating Refs**

Refs are created using React.createRef() and attached to React elements via the ref attribute. Refs are commonly assigned to an instance property when a component is constructed so they can be referenced throughout the component.

```
constructor(props) {
    super(props);
    this.myRef = React.createRef();
}
render() {
    return <div ref={this.myRef} />;
}
```

생성된 refs로 참조할 곳에 넣어주기

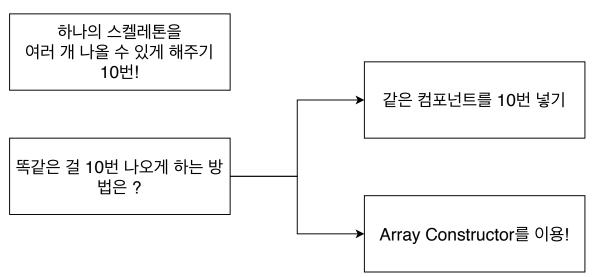
```
{searchTerm
    ? this.displayMessages(searchResults)
    : this.displayMessages(messages)}
{this.renderTypingUsers(typingUsers)}
<div ref={node => (this.messagesEnd = node)} />
```

메시지를 보낼 때 마다 참조하고 있는 곳으로 스크롤 내려주기

```
componentDidUpdate() {
    if (this.messagesEnd) {
       this.messagesEnd.scrollIntoView({ behavior: "smooth" });
    }
}
```

## 메시지 로딩 중 스켈레톤 처리

하나의 스켈레톤을 만들기



https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global\_Objects/Array/Array

## 엔터 키로 메시지 보내기

```
const handleKeyDown = event => {
   console.log('event.keyCode', event.keyCode)
   console.log('event.ctrlKey', event.ctrlKey)

if (event.ctrlKey && event.keyCode === 13) {
   handleSubmit();
}
```