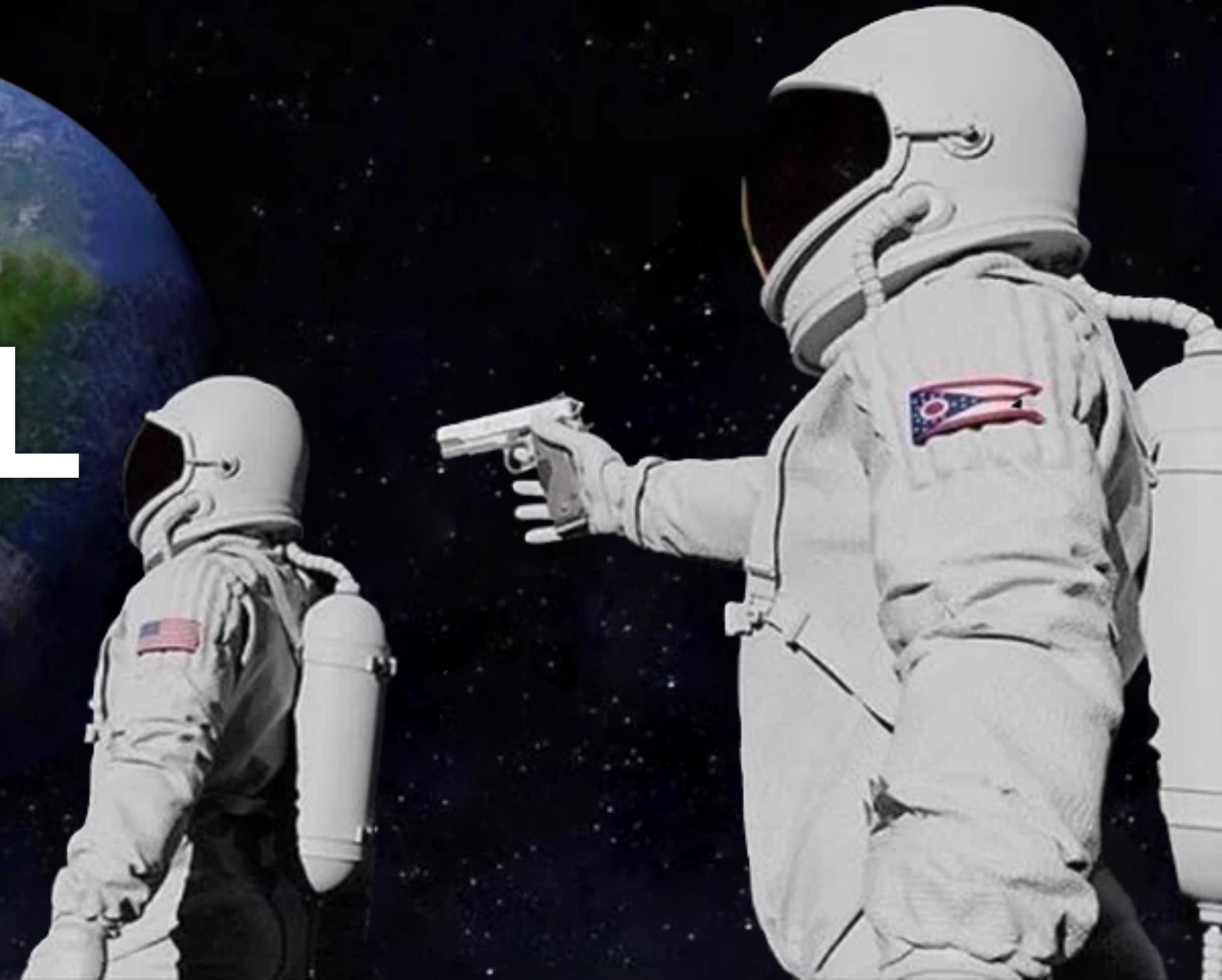




Swift in the Browser with ElementaryUI

Simon Leeb

HTML





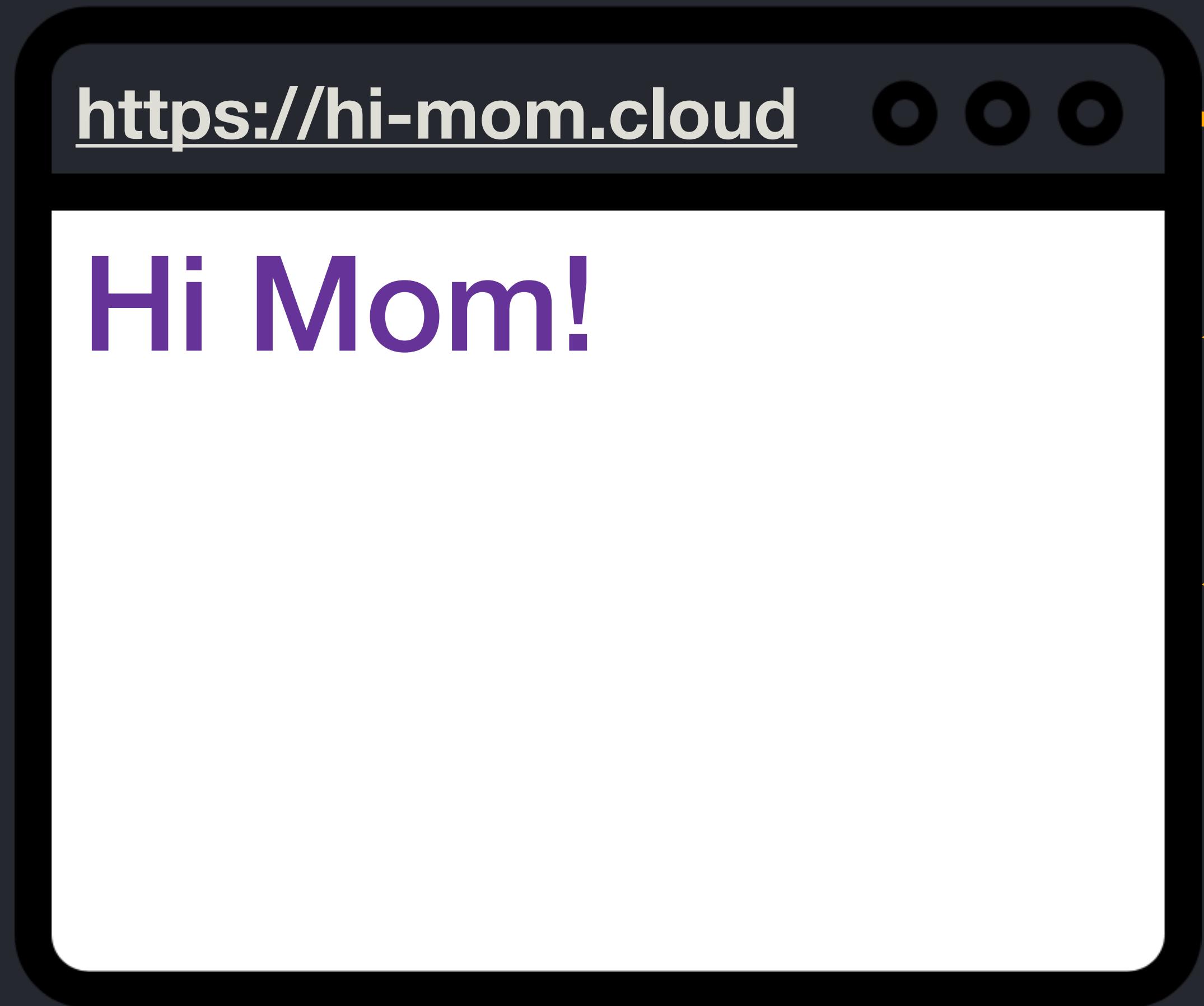
HTML -
+CSS

Browser



Server

Browser



Server

GET

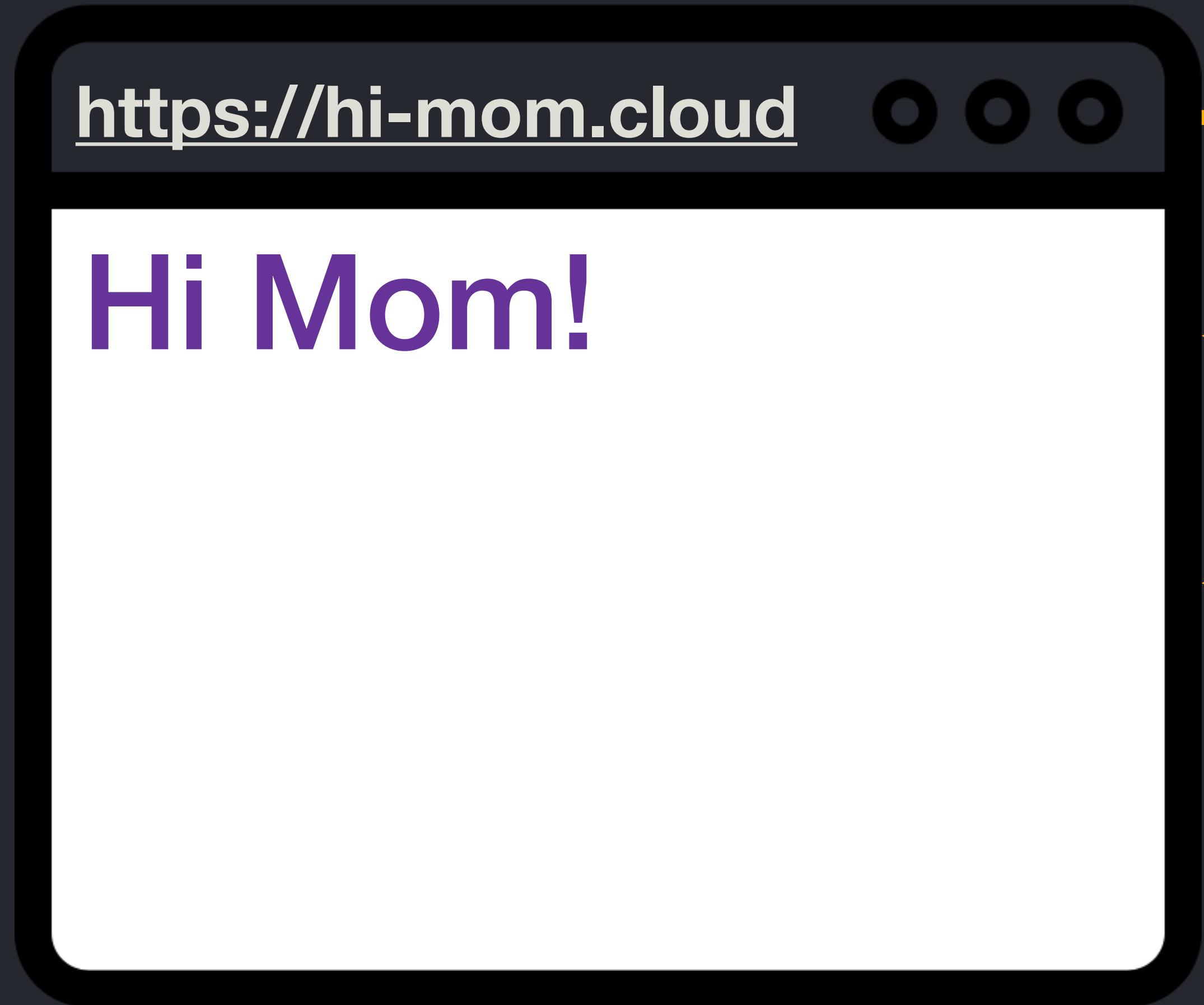
HTML

css

`<h1>Hi Mom!</h1>`

`color: rebeccapurple;`

Browser



Server

GET

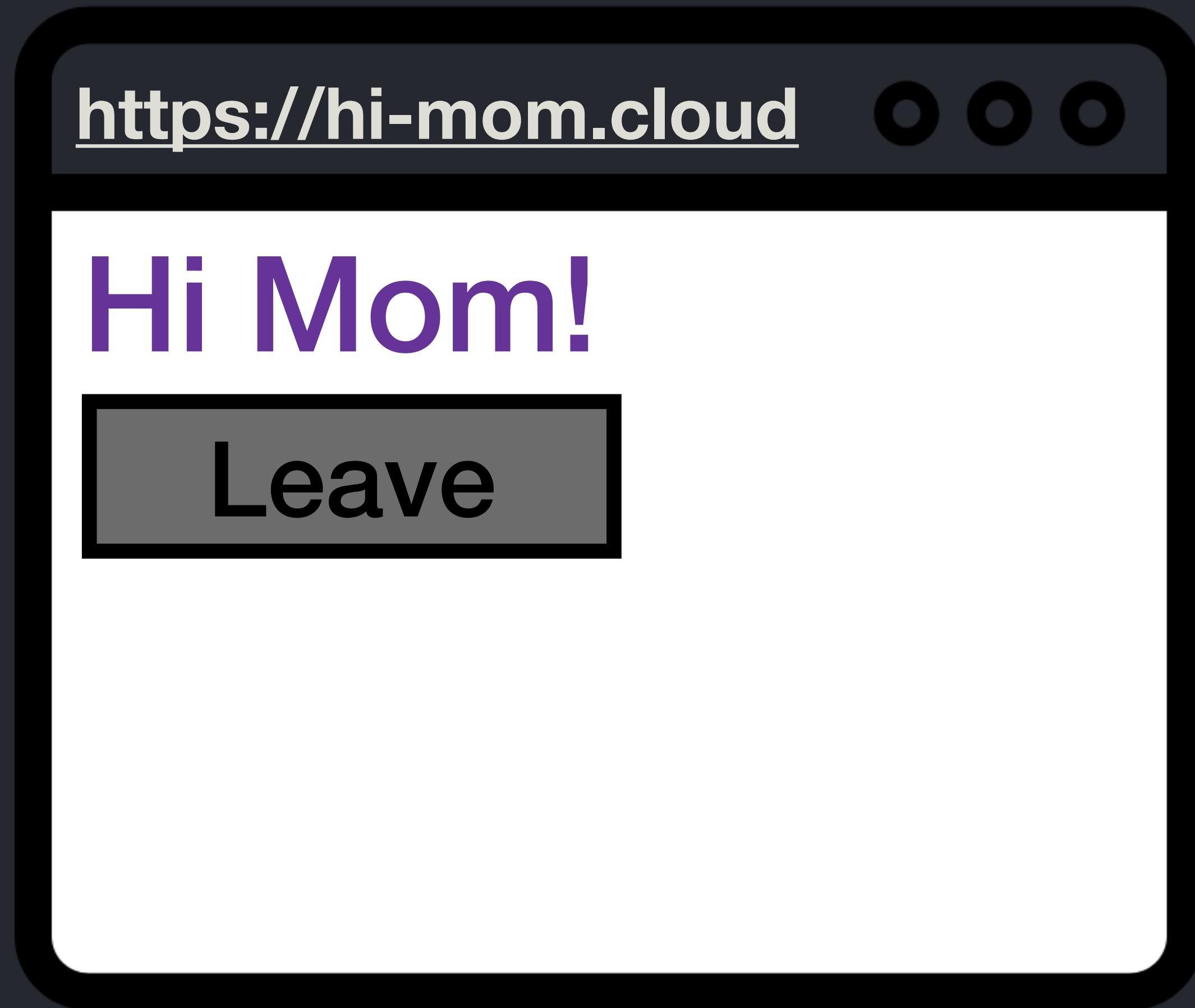
HTML

css

`<h1>Hi Mom!</h1>`

`color: rebeccapurple;`

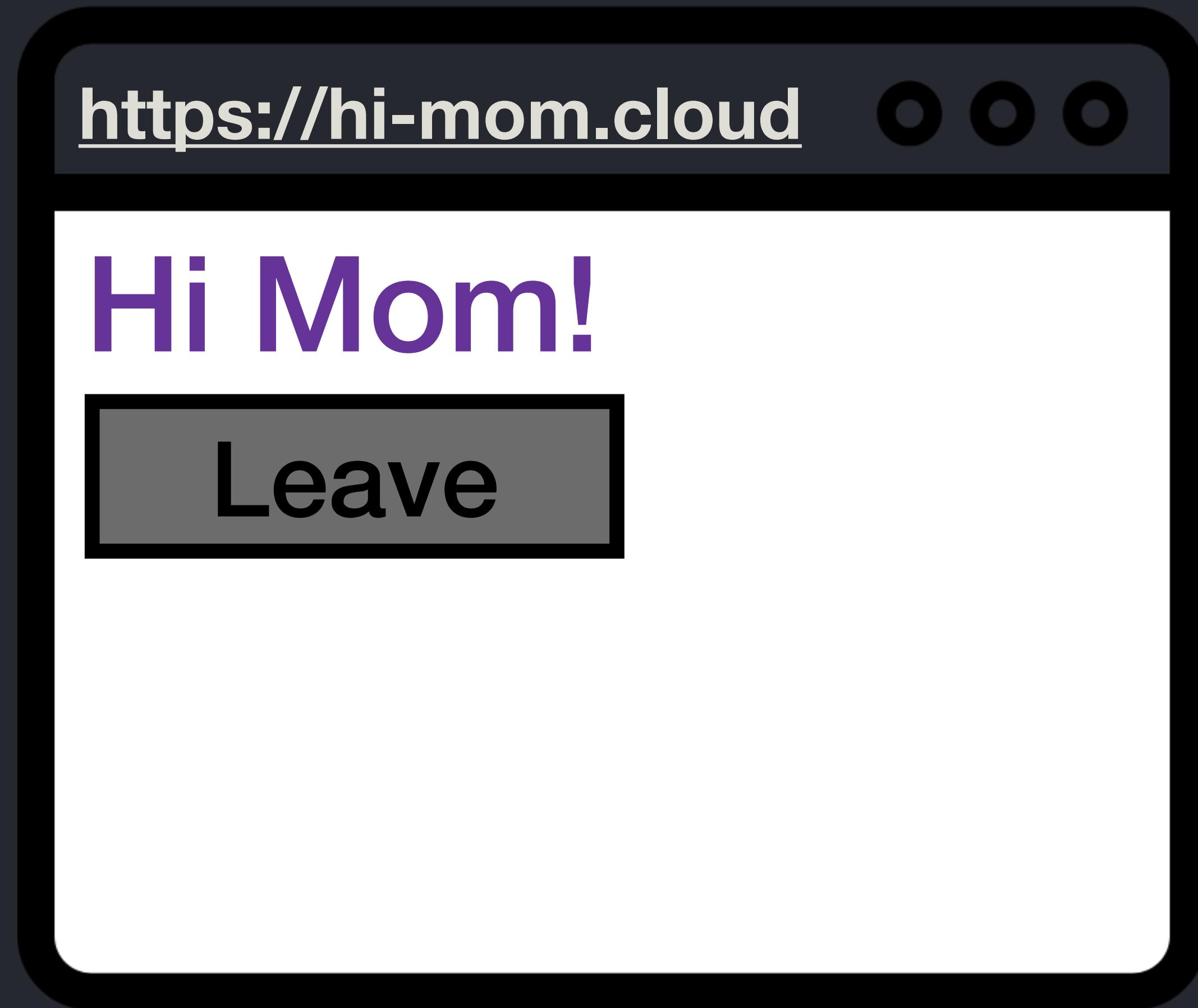
Browser



Server

```
<h1>Hi Mom!</h1>
<button>Leave</button>
color: rebeccapurple;
```

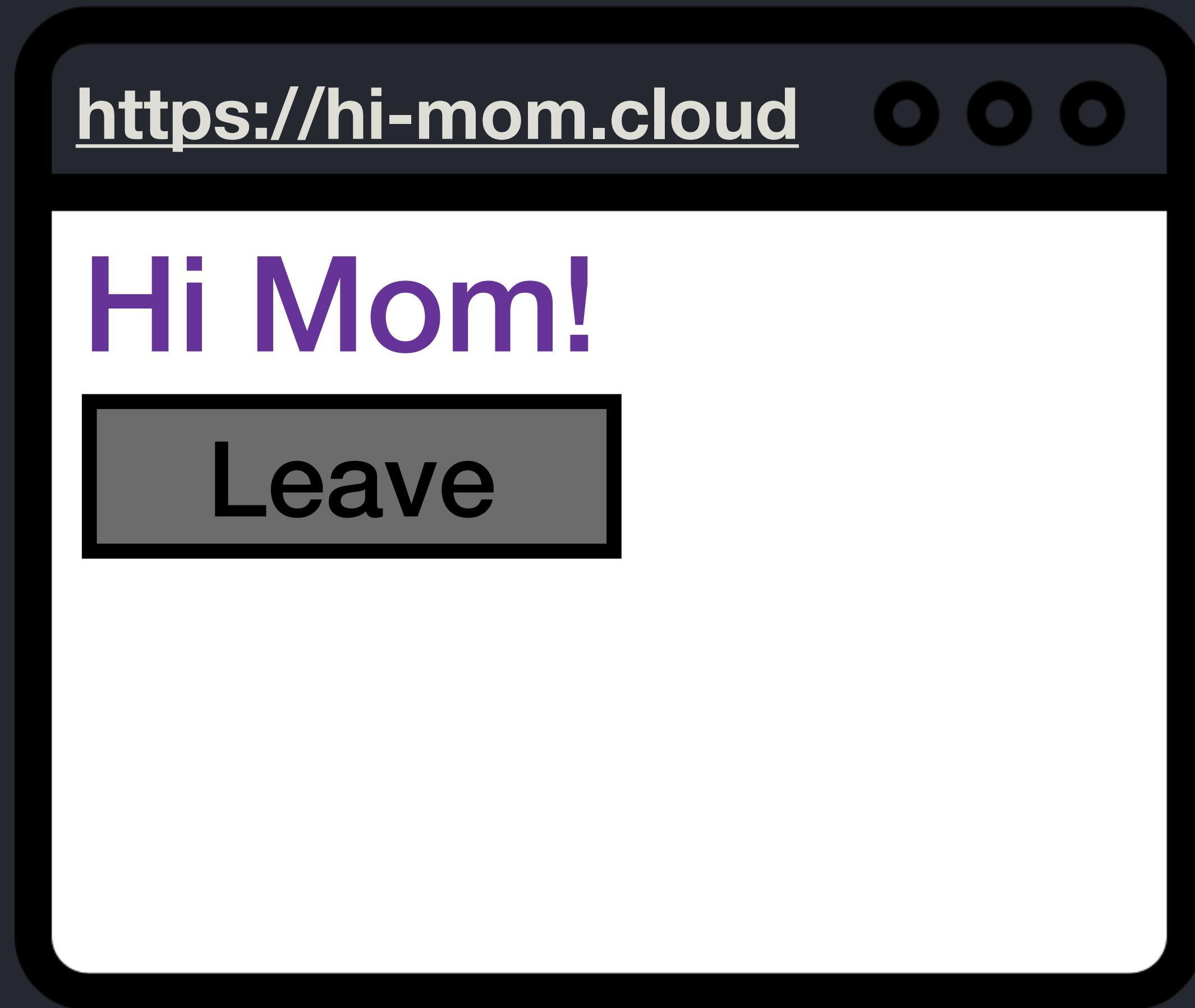
Browser



Server

```
<h1>Hi Mom!</h1>
<button>Leave</button>
color: rebeccapurple;
```

Browser



Server

GET

HTML

css

JS

```
<h1>Hi Mom!</h1>
<button>Leave</button>
color: rebeccapurple;
onclick="this
.previousElementSibling
.textContent = 'Bye Mom!
'"
```

Browser



Server

GET

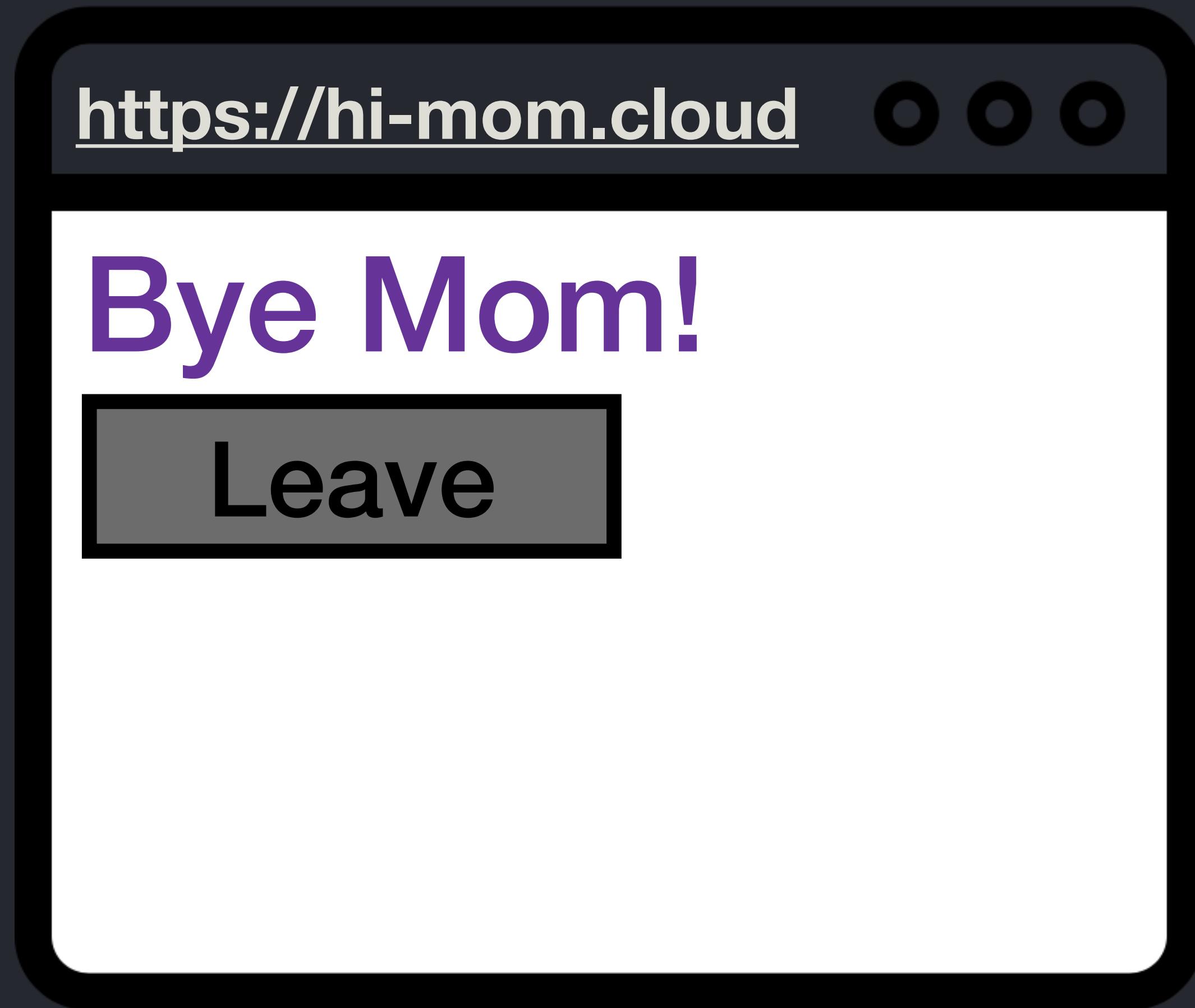
HTML

css

JS

```
<h1>Hi Mom!</h1>
<button>Leave</button>
color: rebeccapurple;
onclick="this
.previousElementSibling
.textContent = 'Bye Mom!
'"
```

Browser



Server

GET

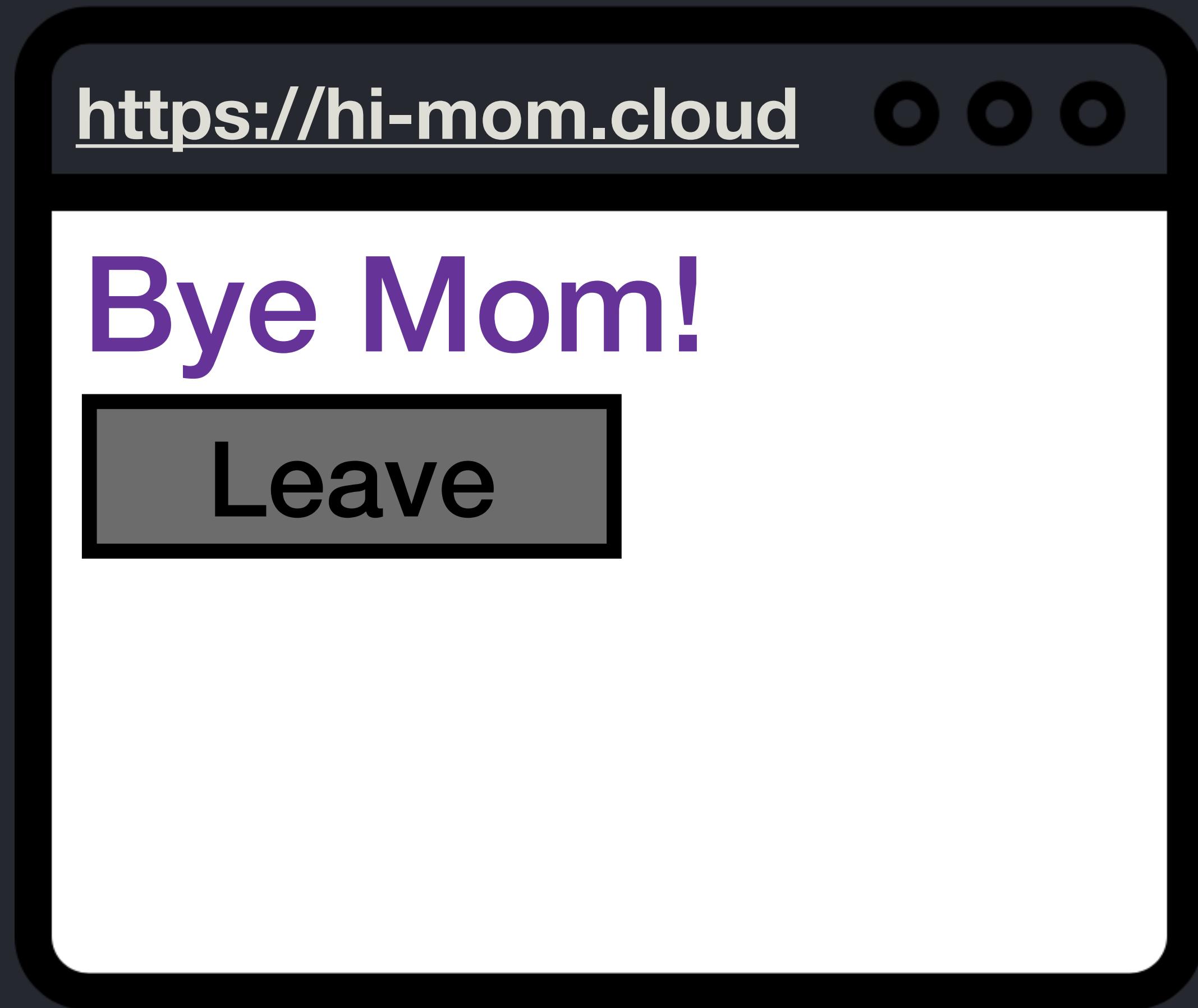
HTML

css

JS

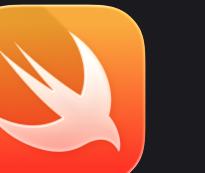
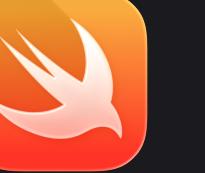
```
<h1>Hi Mom!</h1>
<button>Leave</button>
color: rebeccapurple;
onclick="this
.previousElementSibling
.textContent = 'Bye Mom!
'"
```

Browser



Server



```
<h1>Hi Mom!</h1>   
<button>Leave</button>  
color: rebeccapurple;   
  
onclick="this   
.previousElementSibling  
.textContent = 'Bye Mom!'  
"
```



Server



```
import Elementary

struct MomView: HTML {
    var name = "Mom"

    var body: some HTML {
        h1 { "Hi \(name)!" }
        button(.on(.click, onClickJS)) { "Leave" }
    }

    private var onClickJS: String {
        "this.previousElementSibling.textContent = 'Bye \(name)!'"
    }
}
```



Server



```
import Elementary

struct MomView: HTML {
    var name = "Mom"

    var body: some HTML {
        h1 { "Hi \(name)!" } 😐
        button(.on(.click, onClickJS)) { "Leave" }
    }

    private var onClickJS: String {
        "this.previousElementSibling.textContent = 'Bye \(name)!'"
    }
}
```



Server



```
import Elementary

struct MomView: HTML {
    var name = "Mom"

    var body: some HTML {
        h1 { "Hi \(name)!" } 😐
        button(.on(.click, onClickJS)) { "Leave" }
    }

    private var onClickJS: String {
        "this.previousElementSibling.textContent = 'Bye \(name)!'"
    }
}
```



Server



```
import Elementary

struct MomView: HTML {
    var name = "Mom"

    var isLeaving = false

    var body: some HTML {
        h1 { isLeaving ? "Bye \((name)!" : "Hi \((name)!" }
        button { "Leave" }
            .onClick { isLeaving = true }
    }
}
```



Server



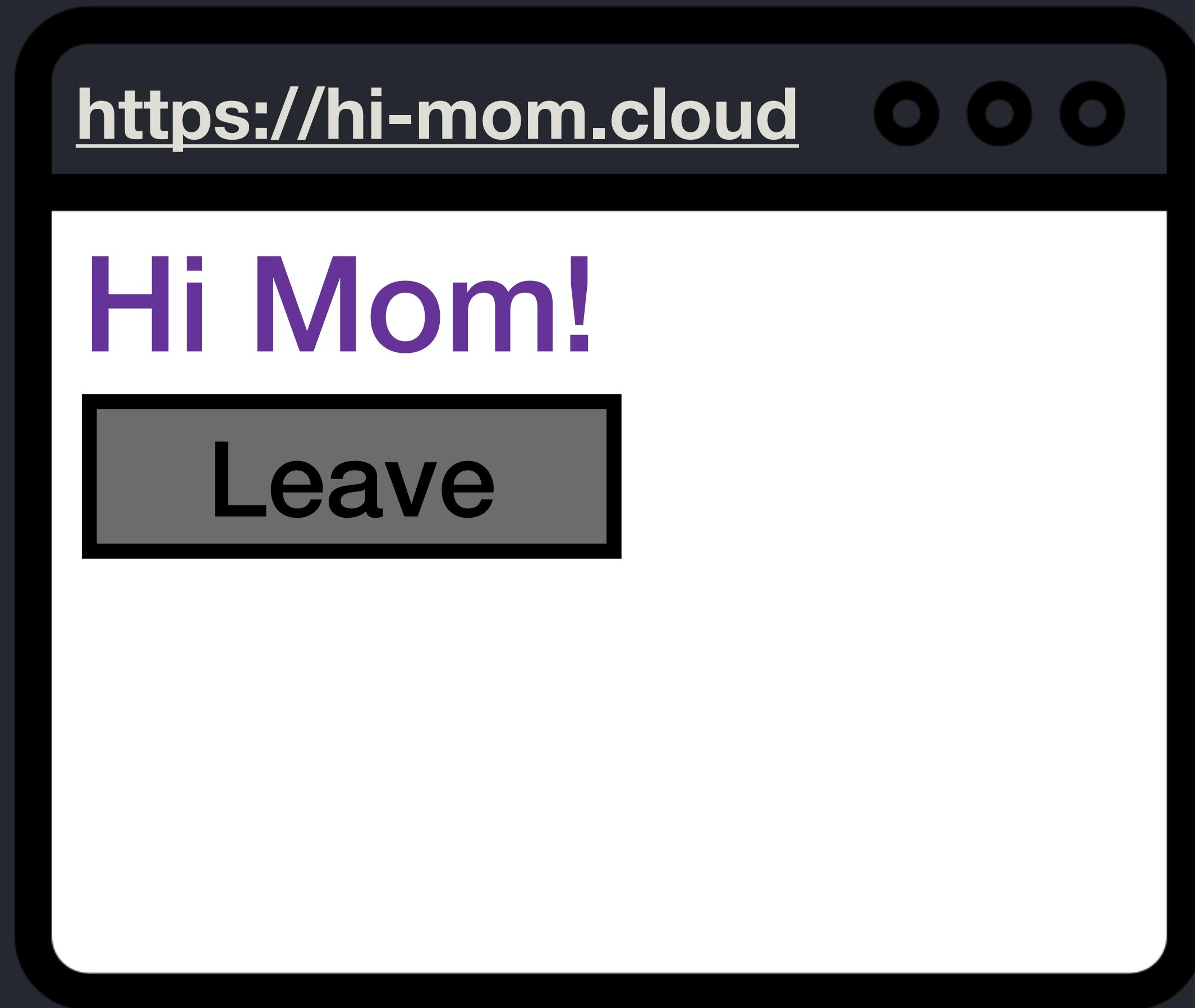
```
import Elementary

struct MomView: HTML {
    var name = "Mom"

    @State var isLeaving = false

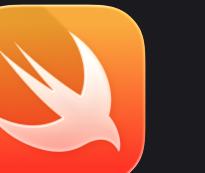
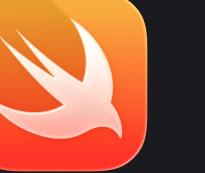
    var body: some HTML {
        h1 { isLeaving ? "Bye \(name)!" : "Hi \(name)!" }
        button { "Leave" }
            .onClick { isLeaving = true }
    }
}
```

Browser

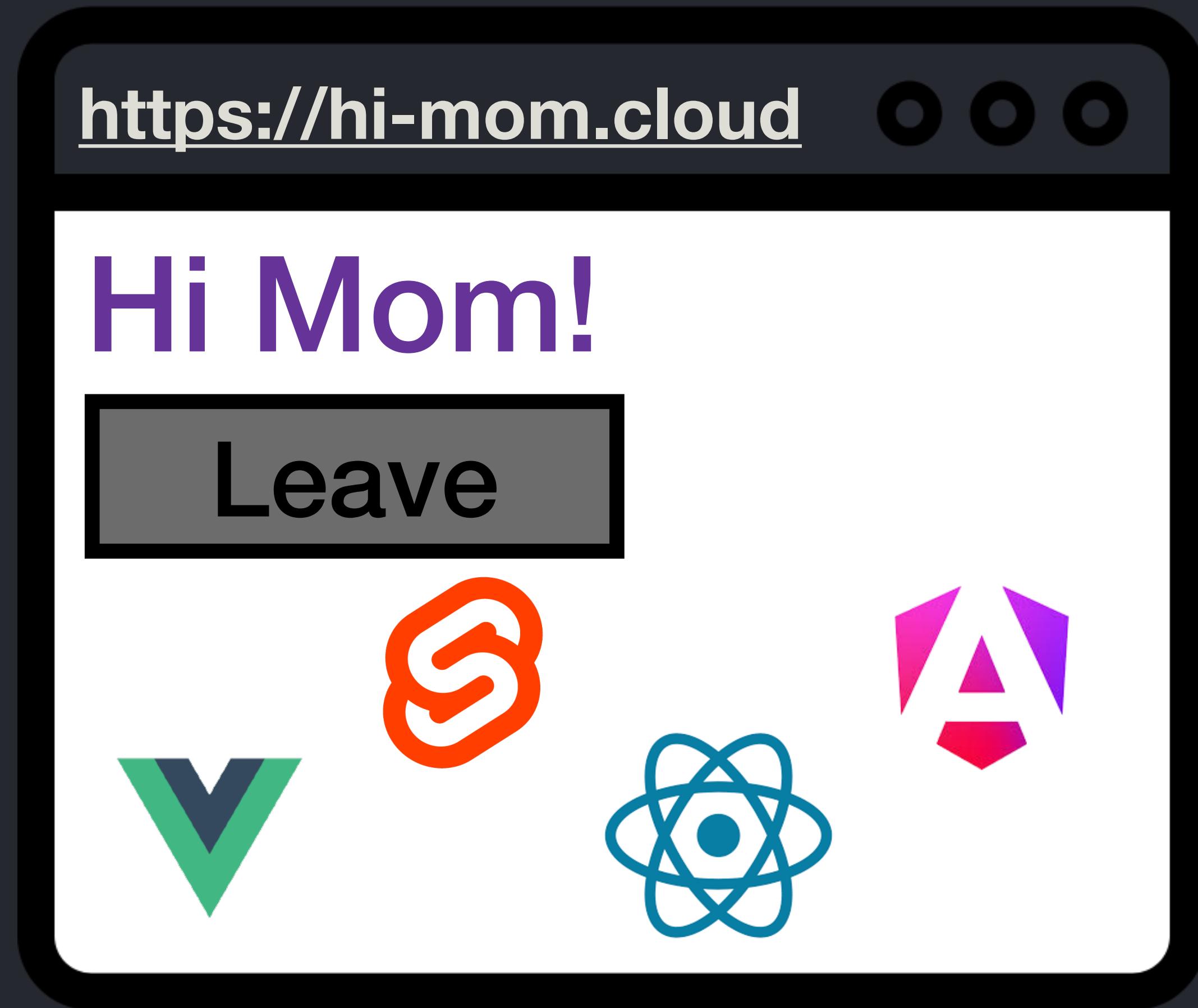


Server



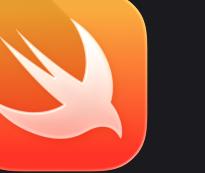
```
<h1>Hi Mom!</h1>   
<button>Leave</button>  
color: rebeccapurple;   
  
onclick="this   
.previousElementSibling  
.textContent = 'Bye Mom!'  
"
```

Browser

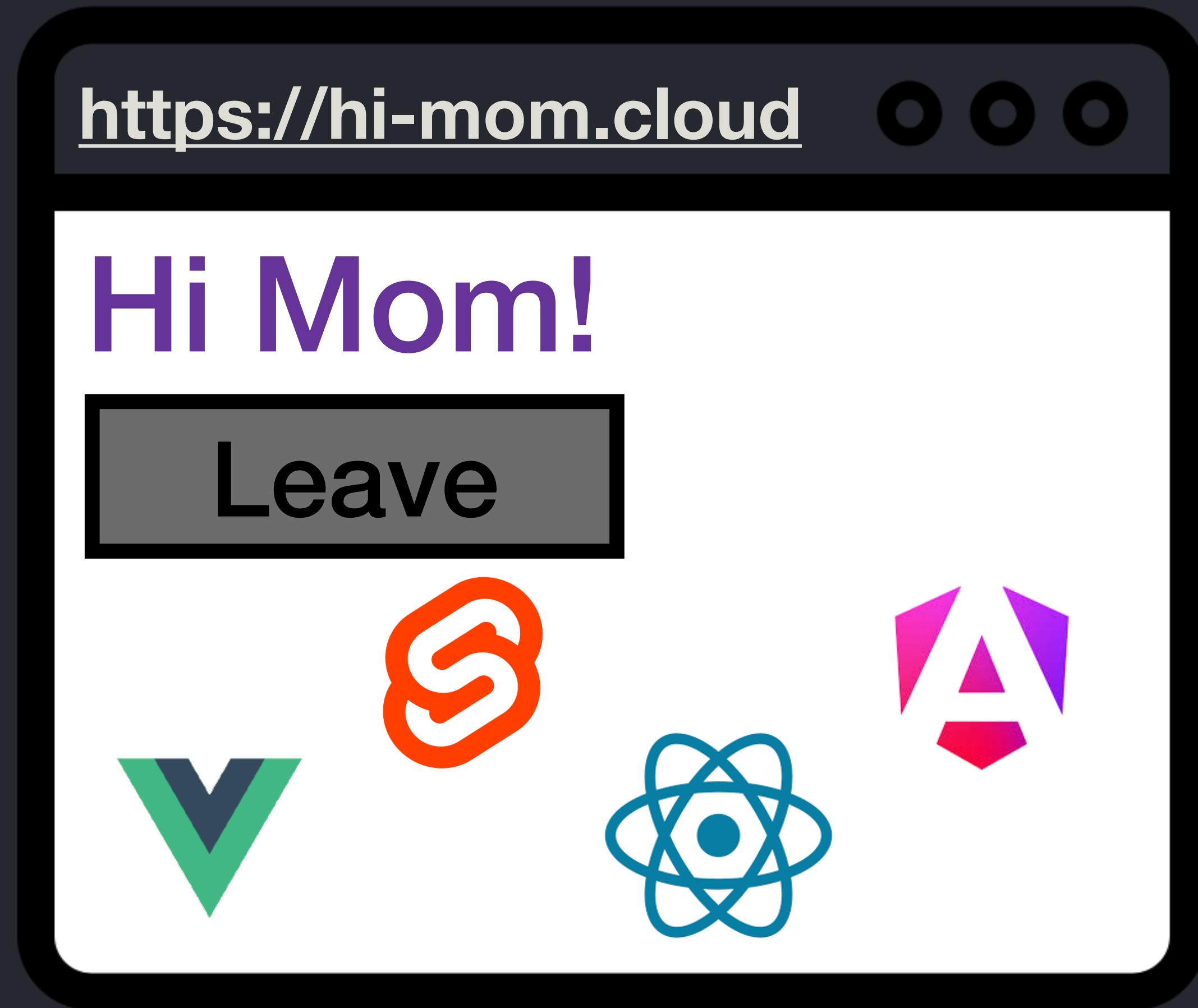


Server



```
<h1>Hi Mom!</h1>   
<button>Leave</button>  
color: rebeccapurple;   
  
onclick="this   
.previousElementSibling  
.textContent = 'Bye Mom!'  
"
```

Browser

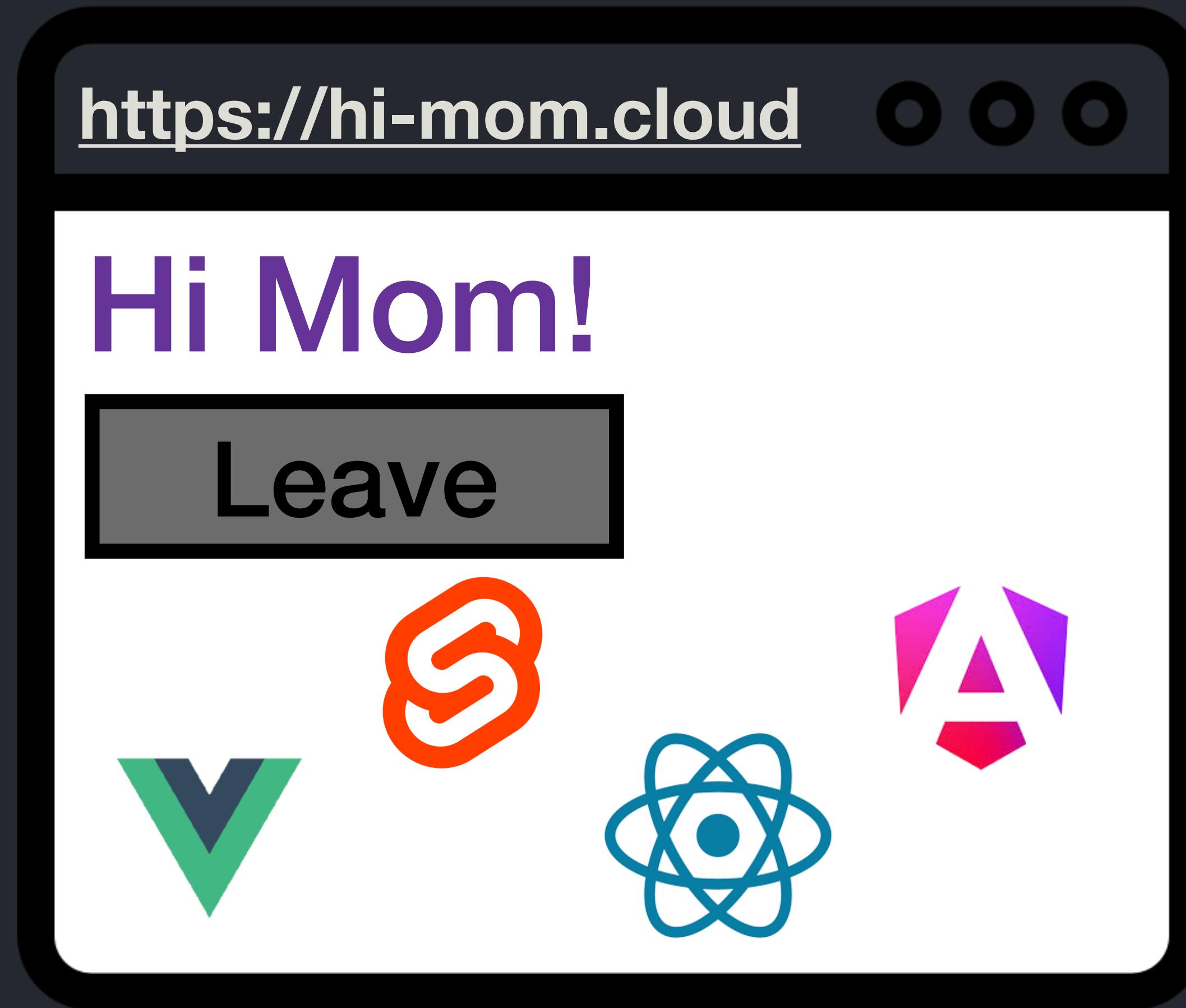


Server



```
<h1>Hi Mom!</h1>   
<button>Leave</button>  
color: rebeccapurple;   
  
onclick="this   
.previousElementSibling  
.textContent = 'Bye Mom!'  
"
```

Browser



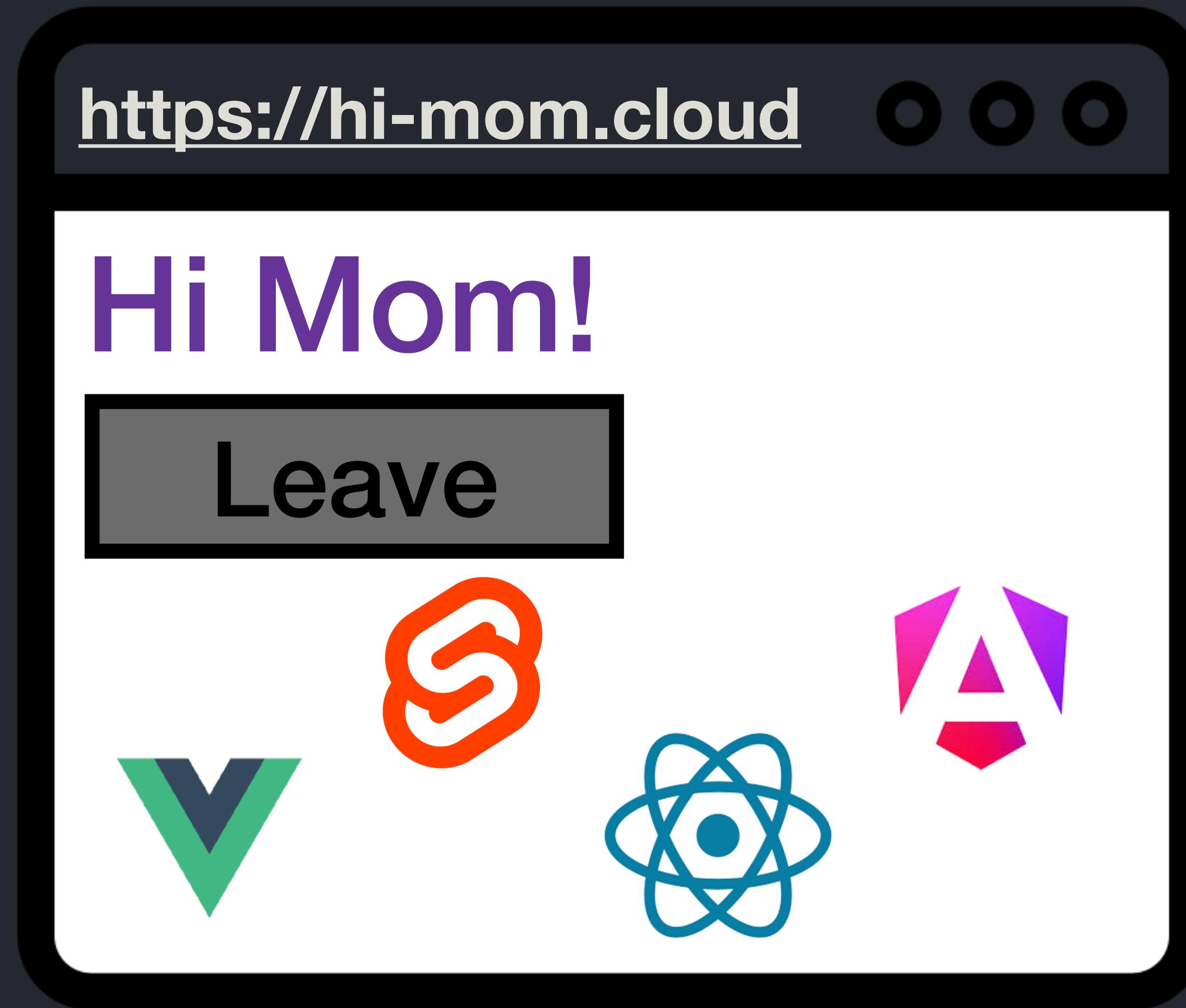
```
<h1>Hi Mom!</h1> JS  
<button>Leave</button>  
color: rebeccapurple; JS  
  
onclick="this JS  
.previousElementSibling  
.textContent = 'Bye Mom!'  
"
```



Server



Browser



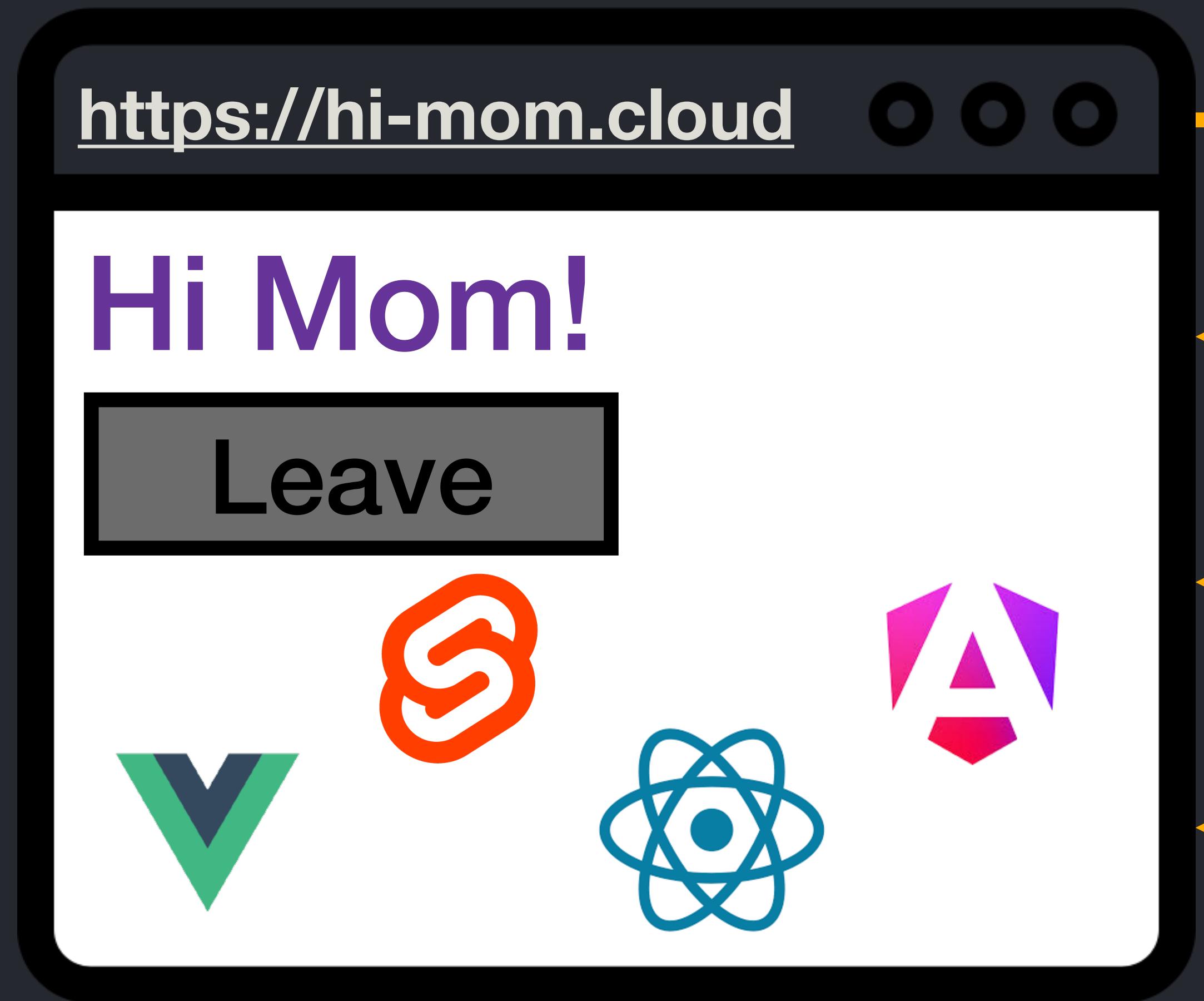
```
<h1>Hi Mom!</h1> JS  
<button>Leave</button>  
color: rebeccapurple; JS  
  
onclick="this JS  
.previousElementSibling  
.textContent = 'Bye Mom!'  
"
```



Server



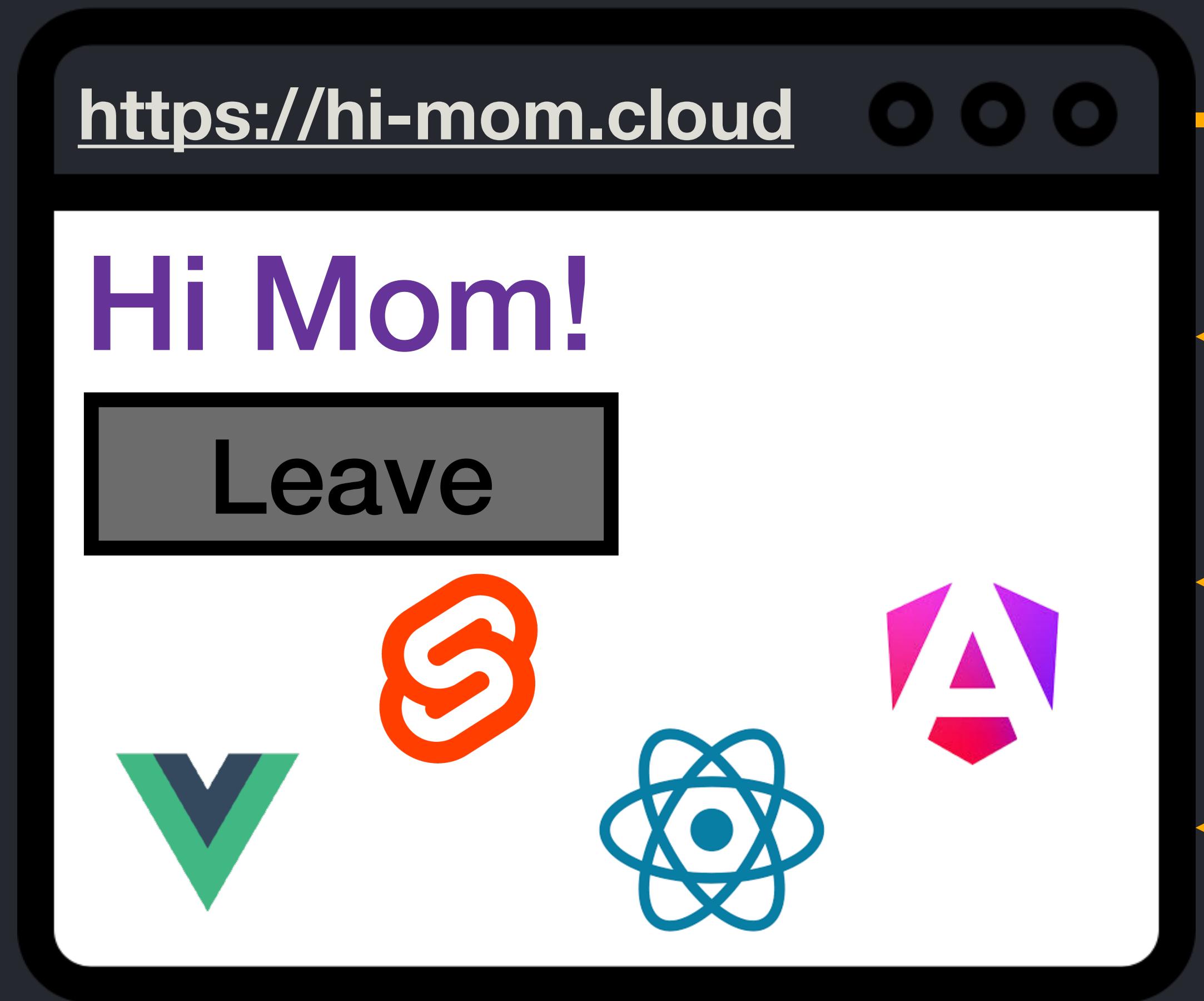
Browser



JS Server

JS

Browser



GET

JS

JS

JS

JS

Server

JS

JS

JS

JS

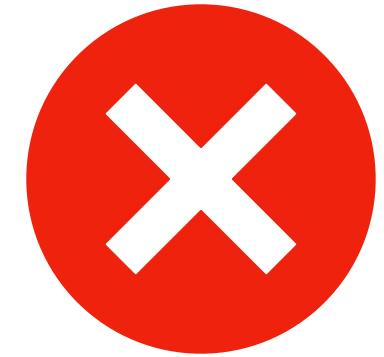
JS

Use the right tool for the job

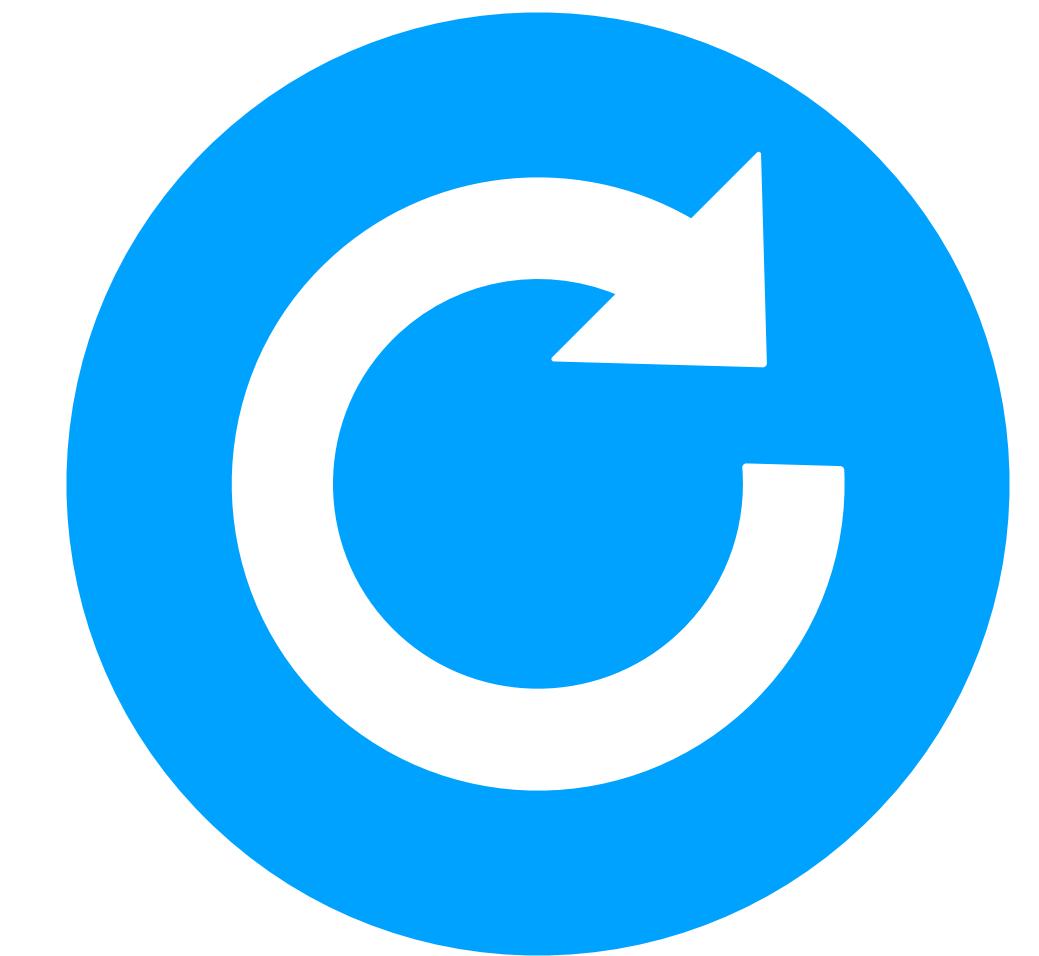


Uncaught TypeError:

Cannot read properties of undefined (reading 'nextSlide')



**Uncaught TypeError:
nextSlide is not a function**



Use the right tool for the job

Use the right tool for the job

An error occurred:
[object Object]

An error occurred:
[object Object]

Use the right tool for the job

Use the right tool for the job

Swift
Use the right ~~tool~~ for the job

Swift
Use the right ~~tool~~ for the job



WebAssembly



WA

WebAssembly



Swift SDK for WebAssembly



Swift SDK for WebAssembly



Swift SDK for WebAssembly



Swift SDK for WebAssembly



Swift SDK for WebAssembly



Swift SDK for WebAssembly



Swift SDK for WebAssembly



Swift SDK for WebAssembly



Embedded Swift SDK for WebAssembly



Embedded Swift SDK for WebAssembly



Embedded Swift SDK for WebAssembly





```
import Elementary

struct MomView: HTML {
    var name = "Mom"

    @State var isLeaving = false

    var body: some HTML {
        h1 { isLeaving ? "Bye \(name)!" : "Hi \(name)!" }
        button { "Leave" }
            .onClick { isLeaving = true }
    }
}
```



```
import ElementaryUI

@View
struct MomView: HTML {
    var name = "Mom"

    @State var isLeaving = false

    var body: some HTML {
        h1 { isLeaving ? "Bye \(name)!" : "Hi \(name)!" }
        button { "Leave" }
            .onClick { isLeaving = true }
    }
}
```



```
import ElementaryUI

@View
struct MomView {
    var name = "Mom"

    @State var isLeaving = false

    var body: some HTML {
        h1 { isLeaving ? "Bye \(name)!" : "Hi \(name)!" }
        button { "Leave" }
            .onClick { isLeaving = true }
    }
}
```

Demo Time

The Road to 1.0

Fetch API

@FocusState

Router

OpenAPI

WebAssembly Reference Types

SSG + Islands

Navigation

SSR + Hydration

Web Storage API

PhaseAnimator

SVG

JavaScriptKit 1.0

BridgeJS

Web Components

The Road to 1.0



Swift in the Browser

Swift in the Browser

Let's make it happen!



<https://elementary.codes>

Swift in the Browser

Let's make it happen!



<https://elementary.codes>