SPEAK COLORS

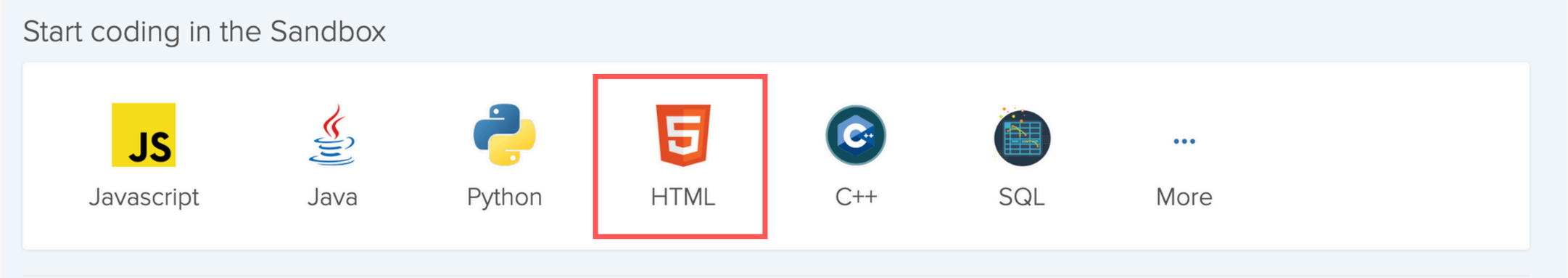
WL HACK CLUB

RED

BLUE

CODEHS

- Go to **CodeHs**
- Create a new **HTML Sandbox Project**



SETUP

- Put following code inside **Index.html**
  - **What does this code do?**

```
<!DOCTYPE html>
<html lang="en">

<head>
  <title>Speak a Color</title>
  <meta charset="utf-8" />
  <meta name="viewport" content="width=device-width, initial-scale=1" />
</head>

<body>
  <script src="script.js"></script>
</body>

</html>
```

IMPORT LIBRARIES

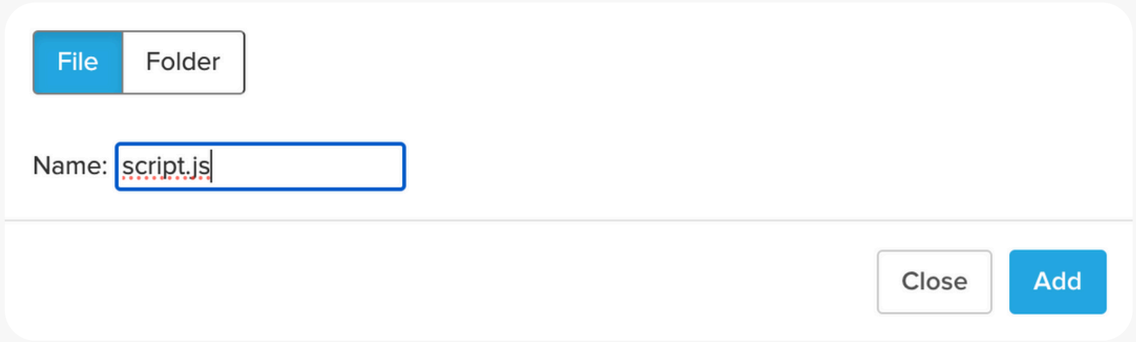
- Import libraries
  - p5 and p5.speech libraries
  - Helps us turn human words into speech!

Copy links from URL:
https://replit.com/@JIUJIU/Color-Speak

```
1  <!DOCTYPE html>
2  <html lang="en">
3
4  <head>
5    <title>Speak a Color</title>
6    <meta charset="utf-8" />
7    <meta name="viewport" content="width=device-width, initial-scale=1" />
8    <script src="https://cdnjs.cloudflare.com/ajax/libs/p5.js/0.9.0/p5.js"></script>
9    <script src="https://rawcdn.githack.com/IDMNYU/p5.js-speech/e7ae007d61f048fc2379971b0de7d5db8abb7eee/lib/p5.speech.js"></script>
10 </head>
11
12 <body>
13   <script src="script.js"></script>
14 </body>
15
16 </html>
```

SCRIPT.JS

- Create a new file named **script.js**



- Inside **script.js:** Setup the **canvas size** using the **p5 library**

```
1   function setup() {
2     createCanvas(windowWidth, windowHeight)
3     background(255)
4     fill(25)
5   }
```

SCREEN

- Inside **script.js: Continue to add some text!**

```
1   function setup() {
2     createCanvas(windowWidth, windowHeight)
3     background(255)
4     fill(25)
5
6     textSize(48)
7     textAlign(CENTER)
8     textStyle(BOLDITALIC)
9     textFont('"Avenir Next", system-ui, sans-serif')
10    text('SAY A COLOR', width / 2, height / 2)
11  }
```

SPEECH RECOGNITION

SPEECH RECOGNITION

- Speech Recognition is **continuous**
  - Set up continuous **speech recognition**
  - Display an **alert** when new speech is transcribed
- Inside **script.js:**

```
1  const speech = new p5.SpeechRec('en-US', parseResult)
2  speech.continuous = true
3  speech.interimResults = false
4
5  function setup() {
6    createCanvas(windowWidth, windowHeight)
7    background(255)
8    fill(25)
9
```

NEW FUNCTIONS

- **setup()**
  - “Sets up” the speech detection
  - **speech.start()**

- **NEW FUNCTION parseResult()**
  - Sends an alert when the speech detects your speaking

```
5   function setup() {
6     createCanvas(windowWidth, windowHeight)
7     background(255)
8     fill(25)
9
10    textSize(48)
11    textAlign(CENTER)
12    textStyle(BOLDITALIC)
13    textFont('"Avenir Next", system-ui, sans-serif')
14    text('SAY A COLOR', width / 2, height / 2)
15
16    speech.start()
17  }
18
19  function parseResult() {
20    if (speech.resultValue) {
21      alert(speech.resultString)
22    }
23  }
```

CHANGE COLOR

- In **parseResult()**
  - Change resultString to a color that the program can read
  - **background(color)** changes the color

```
19  function parseResult() {
20    if (speech.resultValue) {
21      const color = speech.resultString.split(' ').pop().toUpperCase()
22      background(color)
23      text(color, width / 2, height / 2)
24      console.log(color)
25    }
26  }
```

FINISHED!