

Piano on the Web

Hack Club

Starter code:

replit.com/@TomasVargas-Ber/pianoStarter

Final Code:

replit.com/@TomasVargas-Ber/pianoWorkshopFinal

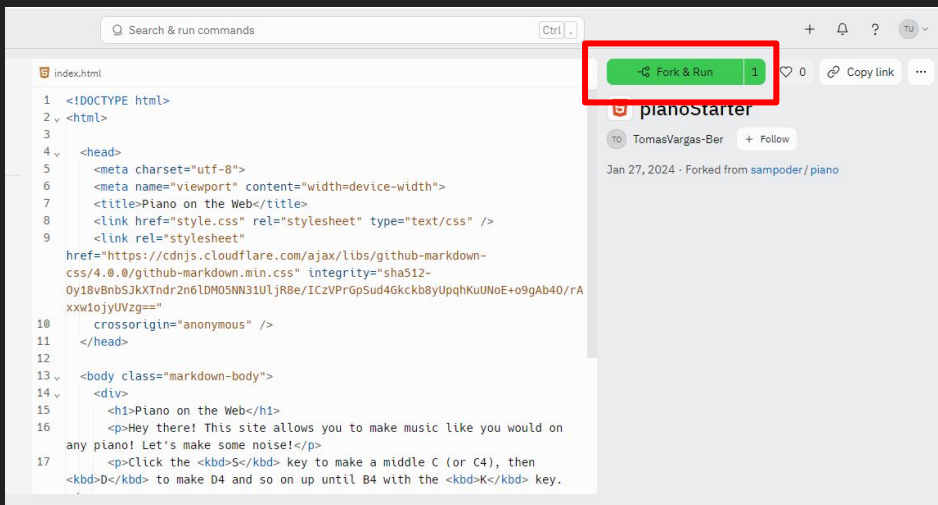
Space Bar Game

Getting Started:

1. Open up starter repl:

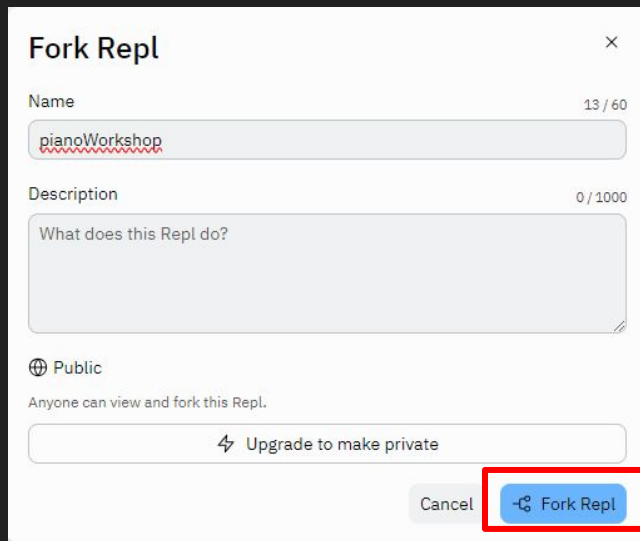
replit.com/@TomasVargas-Ber/pianoStarter

2.a Fork the Repl



The screenshot shows a Replit editor interface. On the left, a code editor displays the content of 'index.html'. The code is a simple HTML document with a title 'Piano on the Web' and some introductory text. On the right, a sidebar shows the project name 'pianoStarter' and the user 'TomasVargas-Ber'. A green button labeled 'Fork & Run' with a counter '1' is highlighted with a red box. Other icons for heart, copy link, and more options are also visible.

2b.



The screenshot shows the 'Fork Repl' dialog box. The 'Name' field contains 'pianoWorkshop'. The 'Description' field is empty. The 'Public' checkbox is checked. At the bottom, there is an 'Upgrade to make private' button and a 'Fork Repl' button, which is highlighted with a red box. A 'Cancel' button is also visible.

Space Bar Game

Making the Piano

in `index.html` add the following (between the “Piano div here” comments):

```
<div id="piano">  
  <span class="key" id="C"><strong>C</strong></span>  
  <span class="key" id="D"><strong>D</strong></span>  
  <span class="key" id="E"><strong>E</strong></span>  
  <span class="key" id="F"><strong>F</strong></span>  
  <span class="key" id="G"><strong>G</strong></span>  
  <span class="key" id="A"><strong>A</strong></span>  
  <span class="key" id="B"><strong>B</strong></span>  
</div>
```

Use copy
paste, to
do this
section
quickly!

Space Bar Game

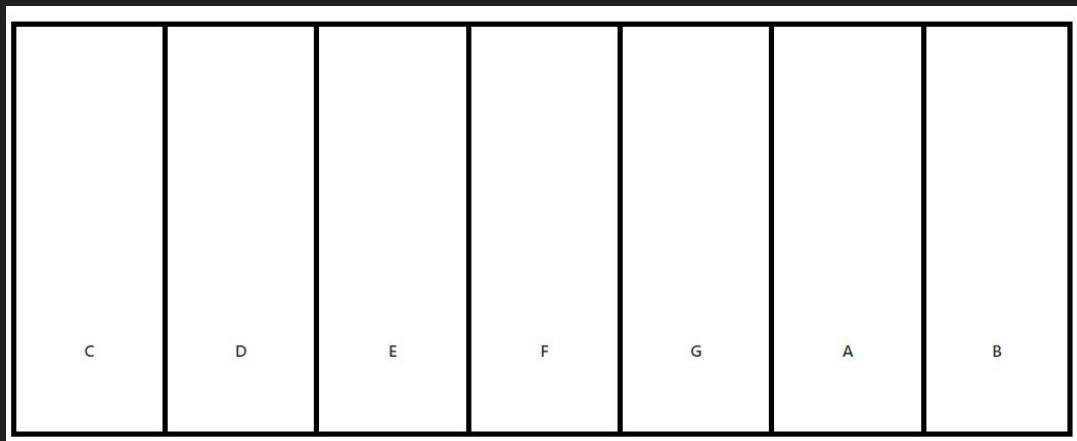
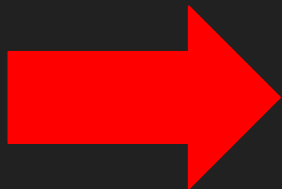
Making Piano (Lets fix it with CSS)

Piano on the W

Hey there! This site allows you to play a piano! Let's make some noise!

Click the key to make a middle C, and then go on up until B4 with the key.

C D E F G A B



Space Bar Game

Making Piano (Lets fix it with CSS)

in `style.css` add the following:

```
body {
  width: 75vw;
  margin: auto;
}

#piano {
  height: 400px;
}

.key {
  height: 400px;
  width: 14.2857142857%;
  float: left;
  border: 5px solid black;
  border-right: none;
  background: white;
  text-align: center;
  padding-top: 300px;
}

#B {
  border-right: 5px solid black;
}
```

Space Bar Game

Detecting Key Presses

in `script.js` add the following

```
document.onkeydown = function() {  
  console.log('Key pressed!');  
}
```

The screenshot shows a web browser window with two tabs: 'Webview' and 'Shell'. The address bar contains a forward slash. The 'Devtools' button is highlighted with a red box. The main content area displays the title 'Piano on the Web' and a paragraph: 'Hey there! This site allows you to make music like you would on any piano! Let's make some noise!'. Below this, instructions read: 'Click the `S` key to make a middle C (or C4), then `D` to make D4 and so on up until B4 with the `K` key.' Underneath the text is a piano keyboard interface consisting of seven empty rectangular keys. At the bottom, the Chrome DevTools console is open, showing a log entry: '* Tone.js v14.7.52 *' followed by 'Key pressed!', which is also highlighted with a red box.

Space Bar Game

Detecting Key Presses

in `script.js` change to function to:

```
document.onkeydown = function (e) {  
  e = e || window.event  
  var key = e.which || e.keyCode  
  console.log(key)  
}
```

The use of “||” is as a browser fallback as some browsers have different APIs.

<https://www.toptal.com/developers/keycode>

(each key has its own code)

Space Bar Game

Detecting Key Presses

in `script.js` change to function to:

```
if (key === 83) {  
  console.log('S had been pressed')  
}
```


Space Bar Game

Making Noise

In `script.js` replace:

```
console.log('S had been pressed')
```

with:

```
playNote('C')
```

Space Bar Game

Making Noise

Add keys D, E, F, G, A, & B:

Use the format:

```
if (key === code) {  
  playNote('Note')  
}
```

~ 192	! 49	@ 50	# 51	\$ 52	% 53	^ 54	& 55	• 56	(57) 48	- 189	= 187	Backspace 8
Tab 9	Q 81	W 87	E 69	R 82	T 84	Y 89	U 85	I 73	O 79	P 80	{ 219	}	 220
Caps Lock 20	A 65	S 83	D 68	F 70	G 71	H 72	J 74	K 75	L 76	; 186	" 222	Enter 13	
Shift 16	Z 90	X 88	C 67	V 86	B 66	N 78	M 77	< 188	> 190	? 191	Shift 16		
Ctrl 17	Win 91	Alt 18	32						Alt 18	Win 92	Menu 93	Ctrl 17	

Space Bar Game

Making the UI interactive

In `script.js` in `playNote()`:

```
document.getElementById(note).style.background = '#33d6a6'
```

Then:

```
setTimeout(() => {  
  document.getElementById(note).style.background = 'white'  
}, 200)
```

We are Done!

Try messing around with the code and making it your own!

Piano on the Web

Hey there! This site allows you to make music like you would on any piano! Let's make some noise!

Click the **C** key to make a middle C (or C4), then **D** to make D4 and so on up until B4 with the **B** key.

C	D	E	F	G	A	B
---	---	---	---	---	---	---