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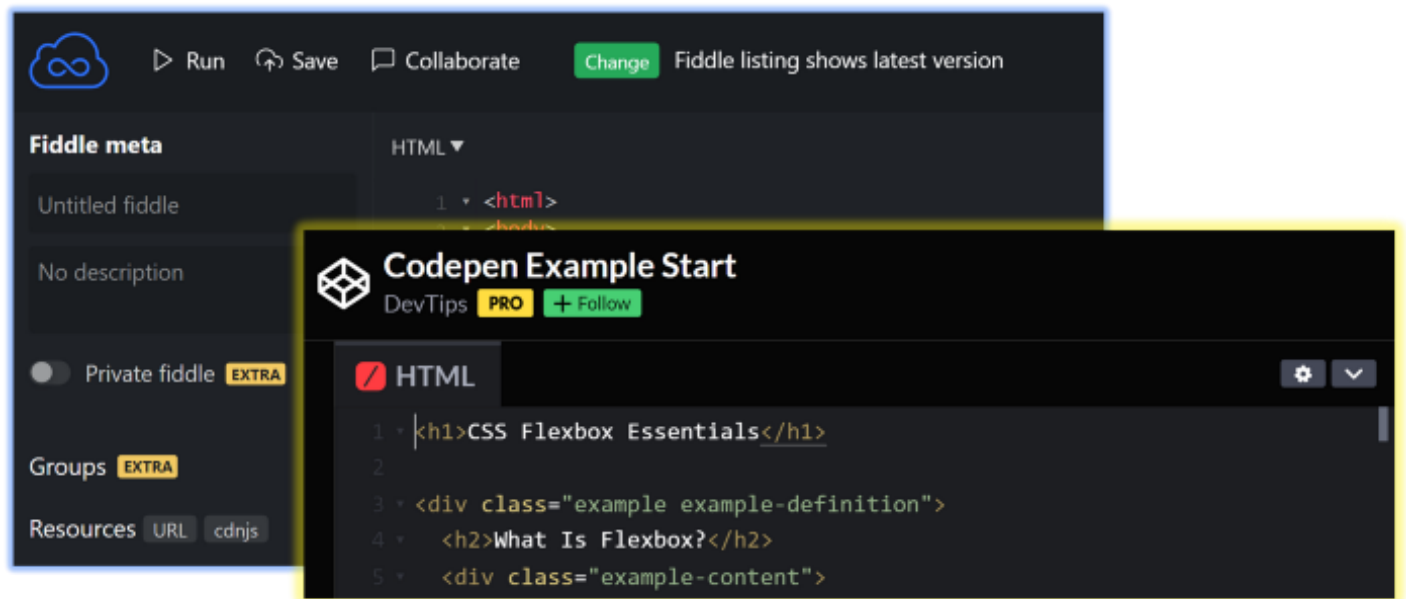
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Enable Line Numbering to any HTML Textarea

Lightweight solution without code editor plugins

While browsing through code snippets online, a handful of code demonstrations are implemented in code playgrounds such as [JSFiddle](#) and [CodePen](#):



Screenshot by Author | In-browser code editors of jsfiddle and codepen respectively. Usually such platforms include both syntax highlights and line-numbering functionalities.

More often than not due to the nature of code playgrounds where multiple programming languages are implemented onto a single platform, it is more efficient to implement plugins such as [CodeMirror](#) which offers multiple features such as autocompletion, custom-language syntax highlights, line numbering etc.

However, when a more simplistic code editor is required instead — where only **line numbering** is needed, embedding a code editor plugin such as [CodeMirror](#) could be an overkill. Fortunately, there is a way to enable line numbering to any HTML Textarea element with just a few lines of Vanilla JavaScript code and CSS styling.



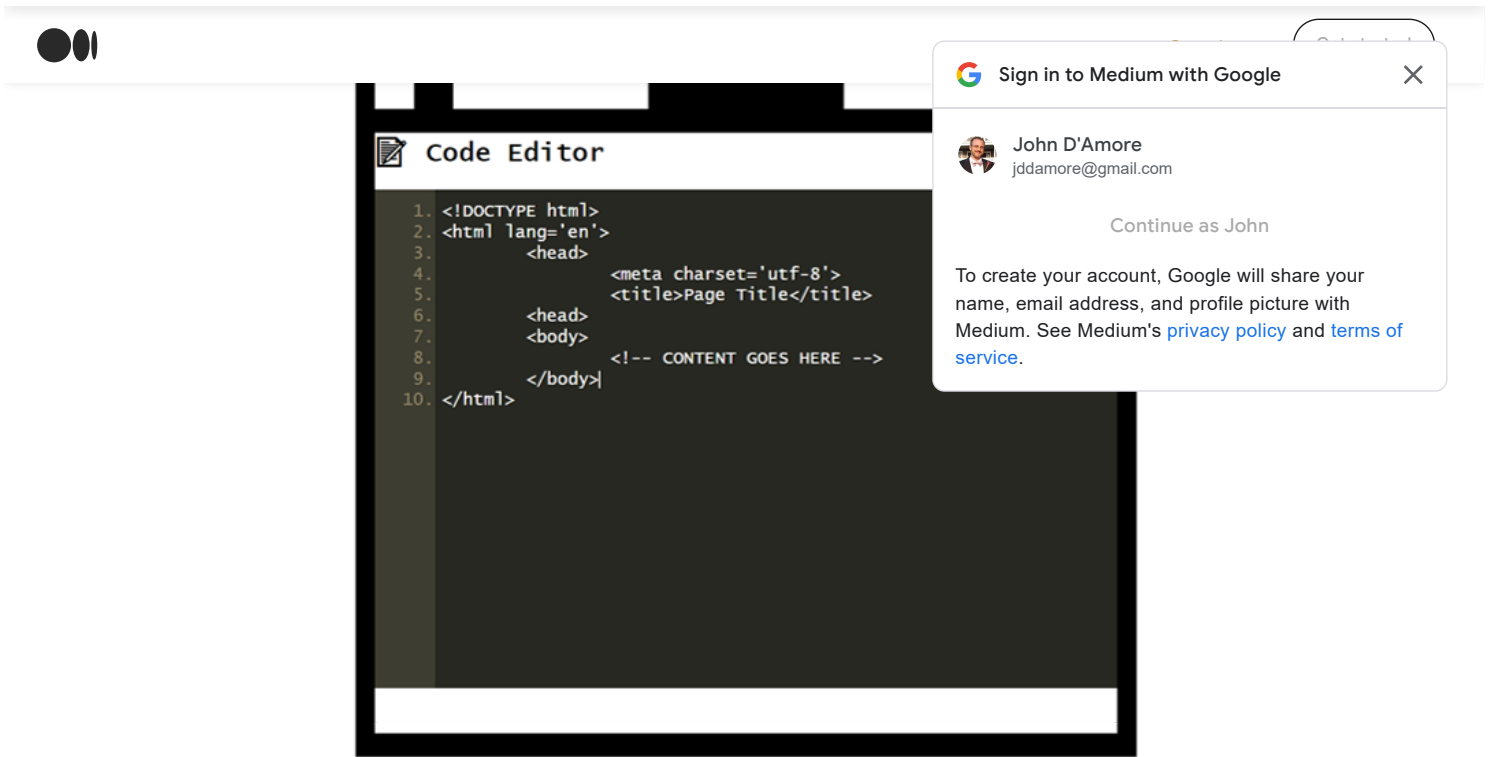


Illustration by Author | Screenshot of minimalistic in-browser code-editor

FYI: The HTML file to render the above can be retrieved from my GitHub at [codeEditor.html](#)

There are 3 parts to the code implementation— (1) HTML markup code for Textarea, (2) CSS Styling and (3) JavaScript code snippet

(1) HTML markup code for Textarea

```
<p><textarea id='lineCounter' wrap='off' readonly>1.</textarea><textarea id='codeEditor' wrap='off'>
</textarea></p>
```

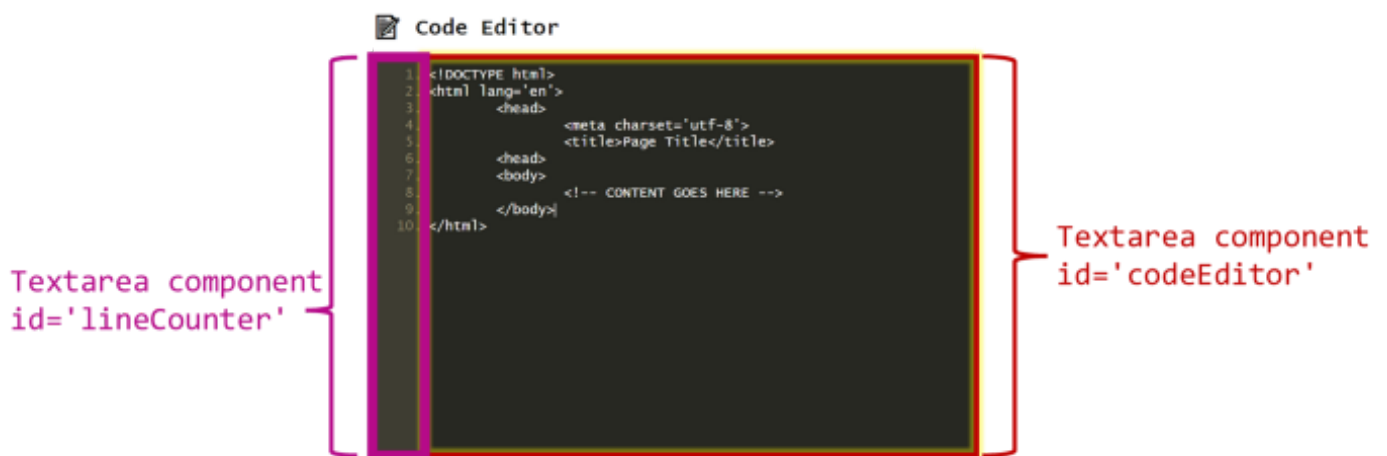


Illustration by Author | Each line of the code editor is in fact displayed via another Textarea. This is displayed in the above as element id='lineCounter'

(2) CSS Styling





```
margin: 0;
padding: 10px 0;
height: 75vh;
border-radius: 0;
resize: none;
font-size: 16px;
line-height: 1.2;
outline: none;
-moz-box-sizing: border-box;
-webkit-box-sizing: border-box;
box-sizing: border-box;
}
```



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The following code snippet removes the outline displayed for a Textarea upon selection:

```
#lineCounter:focus-visible,
#codeEditor:focus-visible {
  outline:none;
}
```

After determining the width for 'lineCounter' (e.g. width is 3.5 rem):

```
#lineCounter {
  display: flex;
  border-color: transparent;
  overflow-y: hidden;
  text-align: right;
  box-shadow: none;
  color: #707070;
  background-color: #d8d8d8;
  position: absolute;
  width: 3.5rem;
  /* Determine appearance of line counter */
  background-color:#3E3D32;
  border-color:#3E3D32;
  color:#928869;
}
```

The 'padding-left' property of 'codeEditor' should be stated corresponding (note that I placed an extra 5px of spacing so it would look less cramped):

```
#codeEditor {
  padding-left: calc(3.5rem + 5px);
  width:100%;
  /* Determine appearance of code editor */
  background-color:#272822;
  border-color:#272822;
  color:#ffffff;
}
```

(3) JavaScript code snippet

Both Textarea components are referenced as:

```
var codeEditor = document.getElementById('codeEditor');
```





```
codeEditor.addEventListener('scroll', () => {  
  lineCounter.scrollTop = codeEditor.scrollTop;  
  lineCounter.scrollLeft = codeEditor.scrollLeft;  
});
```

To enable the  [Tab ↹] key to be input into the code editor component:

```
codeEditor.addEventListener('keydown', (e) => {  
  let { keyCode } = e;  
  let { value, selectionStart, selectionEnd } = codeEditor;  
  
  if (keyCode === 9) { // TAB = 9  
    e.preventDefault();  
    codeEditor.value = value.slice(0, selectionStart) + '\t' + value.slice(selectionEnd);  
    codeEditor.setSelectionRange(selectionStart+2, selectionStart+2)  
  }  
});
```

Finally, the code snippet to output the line counter display:

```
var lineCountCache = 0;  
function line_counter() {  
  var lineCount = codeEditor.value.split('\n').length;  
  var outarr = new Array();  
  if (lineCountCache !== lineCount) {  
    for (var x = 0; x < lineCount; x++) {  
      outarr[x] = (x + 1) + ' .';  
    }  
    lineCounter.value = outarr.join('\n');  
  }  
  lineCountCache = lineCount;  
}  
  
codeEditor.addEventListener('input', () => {  
  line_counter();  
});
```

Trying it out:



53 | 1

Screenshot by Author | Typing HTML code input into the rendered code editor. Note that the colours of the editor and line counter component can be customised in the CSS.



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many thanks for persisting to the end of this article! ▼ Hope you have found this guide as useful as I would like more GIS, Data Analytics & Web application-related content. Would really appreciate it if you could share this article with your friends and colleagues.

Note: Just in case you have missed out the link to the full source code, feel free to retrieve it from the repository.

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