

**Feature:** Keyword / String / Comment Highlighting

**File:** CodeEditor.html

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## STEP 0 — Open the correct file

👉 Open `CodeEditor.html`

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## STEP 1 — ADD CSS (ONLY HERE)

❗ **Where exactly?**

Search for:

```
<style>
```

Scroll **to the very bottom of this `<style>` block, just before:**

```
</style>
```

✅ **Paste THIS**

```
/* ===== Syntax Highlighting ===== */  
  
.py-keyword {  
    color: #ff5252;    /* red */  
}  
  
.sql-keyword {  
    color: #40c4ff;    /* blue */  
}  
  
.spark-keyword {  
    color: #ff9100;    /* orange */  
}  
  
.string {  
    color: #ffd54f;    /* yellow */  
}  
  
.comment {  
    color: #9e9e9e;    /* grey */  
    font-style: italic;  
}
```

## ✓ Done with CSS

Do **not** paste this anywhere else.

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## STEP 2 — ADD KEYWORD ARRAYS

### † Where exactly?

Search for this line inside `<script>`:

```
$(document).ready(function() {
```

### † Paste IMMEDIATELY AFTER it (next line)

```
/* ===== Keyword Configuration ===== */  
  
const pythonKeywords = [  
  'def', 'return', 'if', 'elif', 'else', 'for', 'while', 'break',  
  'continue', 'import', 'from', 'as', 'class', 'try', 'except',  
  'finally', 'with', 'lambda', 'pass'  
];  
  
const sqlKeywords = [  
  'select', 'from', 'where', 'join', 'inner', 'left', 'right',  
  'group', 'by', 'order', 'insert', 'update', 'delete', 'create',  
  'table', 'values', 'distinct'  
];  
  
const sparkKeywords = [  
  'spark', 'rdd', 'dataframe', 'dataset', 'map', 'filter',  
  'reduce', 'collect', 'parallelize'  
];
```

✓ Do NOT put this outside `document.ready`.

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## STEP 3 — ADD / REPLACE `highlightCode` FUNCTION

### † Where exactly?

Inside the **same** `<script>`, search for:

```
function highlightCode
```

### CASE A — If it EXISTS

👉 **DELETE the entire old function**

**CASE B — If it DOES NOT exist**

👉 Paste directly under keyword arrays (Step 2)

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✓ **PASTE THIS FULL FUNCTION (ONLY THIS)**

```
function highlightCode(code) {  
  
    // escape HTML  
    code = code  
        .replace(/&/g, '&amp;')  
        .replace(/</g, '&lt;')  
        .replace(/>/g, '&gt;');  
  
    // strings (single & double)  
    code = code.replace(  
        /([""]*|['])*/g,  
        '<span class="string">$1</span>'  
    );  
  
    // comments (# and --)  
    code = code.replace(  
        /(#[^\n]*|--[^\n]*)/g,  
        '<span class="comment">$1</span>'  
    );  
  
    // python keywords  
    pythonKeywords.forEach(word => {  
        const regex = new RegExp(`\\b(${word})\\b`, 'g');  
        code = code.replace(regex, '<span class="py-keyword">$1</span>');  
    });  
  
    // sql keywords  
    sqlKeywords.forEach(word => {  
        const regex = new RegExp(`\\b(${word})\\b`, 'gi');  
        code = code.replace(regex, '<span class="sql-keyword">$1</span>');  
    });  
  
    // spark keywords  
    sparkKeywords.forEach(word => {  
        const regex = new RegExp(`\\b(${word})\\b`, 'gi');  
        code = code.replace(regex, '<span class="spark-keyword">$1</span>');  
    });  
  
    return code;  
}
```

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## STEP 4 — VERIFY EDITOR WIRING (NO CHANGE)

### ❗ Search for this block

(It already exists in your file)

```
$('#data').on('input scroll', function () {  
  const code = $(this).val();  
  $('#editor').html(highlightCode(code));  
});
```

### ✓ DO NOT modify it

This is what connects highlighting to typing.