**AJS Lab Project**

# QR Code Scanner

❖ **Creating a QR Code Scanner or Reader in HTML CSS & JAVA Script**

➢ **INTRODUCTION :-**

• In this article, we will see how we can implement a QR Code Scanner with the help of HTML CSS & JavaScript.

• A QR code scanner will provide the user with two options to scan the QR code either by uploading the image file of the URL to be scanned or by using the camera of your system to scan the QR code and decode it

• This application will show you an alert message with the decoded text of the QR code.

## ➢ Approach :-

- Created a project folder with the project name and three files for HTML, CSS, and JavaScript.

- Inside the HTML file, the structure of the website will be defined using HTML tags like div, input, heading, etc.

- Now, use the CSS styling properties to make the page more attractive and good-looking.

- Use JavaScript to implement the basic interaction operations like adding events, setting timeouts, etc.

- After that, include the below CDN link to your HTML document to implement the html5-qrcode library to scan the QR.

## ➢ HTML5-qrcode library methods :-

- Html5QrcodeScanner: Initializes the QR code scanner.

- render(): Renders the scanner within a specified HTML element.

- On Scan Success(decode Text, decode Result): A callback function triggered upon successful QR code scanning, displaying decoded text in an alert.

- fps: Sets the frames per second for video capture.

- qr bos: Sets the QR code detection boundary size.

# SOURCE CODE :-

```html
<> scanner.html > ⬡ html > ⬡ script > ⬡ domReady() callback
 1    <!-- Index.html file -->
 2    <!DOCTYPE html>
 3    <html lang="en">
 4
 5    <head>
 6        <meta charset="UTF-8">
 7        <meta name="viewport"
 8            content="width=device-width, initial-scale=1.0">
 9        <link rel="stylesheet"
10            href="style.css">
11        <title>QR Code Scanner / Reader
12        </title>
13    </head>
14    <body>
15        <div class="container">
16            <h1>Scan QR Codes</h1>
17            <div class="section">
18                <div id="my-qr-reader">
19                </div>
20            </div>
21        </div>
22        <script
23            src="https://unpkg.com/html5-qrcode">
24        </script>
25        <script src="script.js"></script>
26    </body>
27    <link rel="stylesheet" href="scanner.css">
28
29    <!--JAVAScript code-->
30    <script>
31    function domReady(fn) {
32        if (
33            document.readyState === "complete" ||
34            document.readyState === "interactive"
35        ) {
36            setTimeout(fn, 1000);
37        } else {
38            document.addEventListener("DOMContentLoaded", fn);
```

PROBLEMS    OUTPUT    DEBUG CONSOLE    TERMINAL    PORTS

```html
28
29  <!--JAVAScript code-->
30  <script>
31  function domReady(fn) {
32      if (
33          document.readyState === "complete" ||
34          document.readyState === "interactive"
35      ) {
36          setTimeout(fn, 1000);
37      } else {
38          document.addEventListener("DOMContentLoaded", fn);
39      }
40  }
41
42  domReady(function () {
43
44      // If found you qr code
45      function onScanSuccess(decodeText, decodeResult) {
46          alert("You Qr is : " + decodeText, decodeResult);
47      }
48
49      let htmlscanner = new Html5QrcodeScanner(
50          "my-qr-reader",
51          { fps: 10, qrbos: 250 }
52      );
53      htmlscanner.render(onScanSuccess);
54  });
55  </script>
56  </html>
```

```css
1   /* style.css file*/
2   body {
3       display: flex;
4       justify-content: center;
5       margin: 0;
6       padding: 0;
7       height: 100vh;
8       box-sizing: border-box;
9       text-align: center;
10      background: rgb(128 0 0 / 66%);
11  }
12  .container {
13      width: 100%;
14      max-width: 500px;
15      margin: 5px;
16  }
17
18  .container h1 {
19      color: #ffffff;
20  }
21
22  .section {
23      background-color: #ffffff;
24      padding: 50px 30px;
25      border: 1.5px solid #b2b2b2;
26      border-radius: 0.25em;
27      box-shadow: 0 20px 25px rgba(0, 0, 0, 0.25);
28  }
29
30  #my-qr-reader {
31      padding: 20px !important;
32      border: 1.5px solid #b2b2b2 !important;
33      border-radius: 8px;
34  }
35
36  #my-qr-reader img[alt="Info icon"] {
37      display: none;
38  }
```

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```css
36    #my-qr-reader img[alt="Info icon"] {
37        display: none;
38    }
39
40    #my-qr-reader img[alt="Camera based scan"] {
41        width: 100px !important;
42        height: 100px !important;
43    }
44
45    button {
46        padding: 10px 20px;
47        border: 1px solid #b2b2b2;
48        outline: none;
49        border-radius: 0.25em;
50        color: white;
51        font-size: 15px;
52        cursor: pointer;
53        margin-top: 15px;
54        margin-bottom: 10px;
55        background-color: #008000ad;
56        transition: 0.3s background-color;
57    }
58
59    button:hover {
60        background-color: #008000;
61    }
62
63    #html5-qrcode-anchor-scan-type-change {
64        text-decoration: none !important;
65        color: #1d9bf0;
66    }
67
68    video {
69        width: 100% !important;
70        border: 1px solid #b2b2b2 !important;
71        border-radius: 0.25em;
72    }
```

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# -: OUT PUT :-