Service Worker in iFrame

Asked 4 years, 8 months ago Modified 3 years ago Viewed 9k times



I am trying to initialize a service worker inside an iframe. I understand that service workers have security restrictions when it comes to origin, but as I understand setting **base** should solve this issue.







```
<html>
  <base href="http://127.0.0.1:9090">
  <script>
    if ('serviceWorker' in navigator) {
       window.addEventListener('load', function() {
          navigator.serviceWorker.register('/sw.js').then(function(reg) {
            if(reg.installing) {
              console.log('Service worker installing');
            } else if(reg.waiting) {
              console.log('Service worker installed');
            } else if(reg.active) {
              console.log('Service worker active');
              console.log(self)
          }).catch(function(error) {
            // registration failed
            console.log('Registration failed with ' + error);
          });
       });
     }
  </script>
```

Error: Registration failed with InvalidStateError: Failed to register a ServiceWorker: The document is in an invalid state.

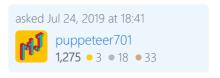
If I modify the base it complains that the origins are not the same, so service worker is somewhat connected with base href. What am I missing here?

Thank you for your help

javascript html iframe service-worker

Share Improve this question Follow





1 From my observation, you get the error The document is in an invalid state. when you try to register a service worker from an anonymous (dynamic) iframe. – PotatoProgrammer Jul 16, 2020 at 20:18

2 Answers





The <base> element does not change the origin of the document. You can test this by logging self.origin.



What <base> does do, however, is change the base URL for resolving relative URLs. In this case your service worker script is a relative URL. So instead of being relative to self.location its relative to the new base.





This means if you give <base> a cross-origin URL then your service worker script will also be cross-origin. This will trigger an error when you try to register it.

Share Improve this answer Follow

answered Jul 26, 2019 at 15:00



Ben Kelly **1,324** • 7 • 9

- Is there a way to register a worker inside a blob or iframe? I am constructing a parent iframe which is then used to serve a website which may have multiple iframes. I am trying to avoid using any backend server so what I did was, I download and store the zip into indexdb (BrowserFS) and then created blobs, which I want to replace the files needed by the website (img.png -> blob:<u>127.0.0.1:9090/dsdasdasdasd</u>). For this I need to have service workers inside the iframe, so they map img.png to the blob file. - puppeteer701 Jul 29, 2019
- You can register a service worker in an iframe (unless there is some policy blocking the iframe from accessing storage/cookies/etc.) The iframe must have a real origin, though. So you cannot register a service worker in a sandboxed iframe. In theory you should be able to register a service worker in an iframe with a blob URL, but that blob URL will inherit the origin from its creating context. This case is not well tested, though, and I would not be surprised if its buggy. – Ben Kelly Aug 6, 2019 at 1:02



I will post my observations about the error Failed to register a ServiceWorker: The document is in an invalid state. since I could not find much information about the error.





When an iframe is added to the document dynamically, registering a service worker from that iframe will result in the above error. For example:



```
var iframe = document.createElement('iframe');
var html =
`<head>
    <script src="./index.js" ></script>
</head>
<body>Foo</body>`;
document.body.appendChild(iframe);
iframe.contentWindow.document.open();
iframe.contentWindow.document.write(html);
iframe.contentWindow.document.close();
```

As opposed to having the iframe statically in the parent html, where service registration would work.

Service worker registration code is in index.js which looks like this:

The second case would work even with sandbox iframes provided the sandbox has allow-same-origin enabled.

Share Improve this answer Follow edited Jul 29, 2020 at 12:54

answered Jul 16, 2020 at 20:55

PotatoProgrammer

134 • 1 • 1 • 7