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Why does JSON.parse fail with the empty string? [duplicate]

Asked 4 years, 3 months ago Active 3 years, 9 months ago Viewed 66k times



59

This question already has an answer here:

[What is the minimum valid JSON?](#) 8 answers



Why does:



14

```
JSON.parse('');
```

produce an error?

Uncaught SyntaxError: Unexpected end of input

Wouldn't it be more logical if it just returned `null` ?

[javascript](#)[json](#)

asked Jun 3 '15 at 13:38



[Richard](#)

21.2k

70

222



386

marked as duplicate by [Michał Perłakowski](#) [javascript](#) Apr 21 '17 at 19:53

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wrapped in a try/catch to avoid such errors. – [adeneo](#) Jun 3 '15 at 13:42

-
- 1 An empty string is not a valid json, then it fails. Don't think it deserves much more analysis :) – [Claudio Redi](#) Jun 3 '15 at 13:42 
-
- 1 Please read JSON defenition here en.wikipedia.org/wiki/JSON You can check JSON in any JSON Validator, f.e jsonlint.com if you need empty JSON you have to use {} – [Hayk Mantashyan](#) Jun 3 '15 at 13:43
-
- 3 An empty string, as many have mentioned, is not a valid JSON string. Frankly, I think that's a shortcoming with the specification, as it would have been trivial to return `null` . Requiring the user to check for empty strings or null, or wrapping `JSON.parse` inside `try ... catch` should have unnecessary. The fact that the question had to be asked also suggests that it's not intuitive. In any case, you can use: `JSON.parse(data||'{}')` to coerce an empty string to something safe. – [Manngo](#) Jul 25 '16 at 12:00 
-

5 Answers



96



As an empty string is not valid JSON it would be incorrect for `JSON.parse('')` to return `null` because `"null"` is valid JSON. e.g.

```
JSON.parse("null");
```

returns `null` . It would be a mistake for invalid JSON to also be parsed to null.

While an empty string is not valid JSON two quotes is valid JSON. This is an important distinction.

Which is to say a string that contains two quotes is not the same thing as an empty string.

```
JSON.parse('""');
```

will parse correctly, (returning an empty string). But

```
JSON.parse('');
```

will not.

Valid minimal JSON strings are

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The empty array `[]`

The string that is empty `''`

A number e.g. `123.4`

The boolean value true `true`

The boolean value false `false`

The null value `null`

edited Nov 26 '15 at 16:55

answered Jun 3 '15 at 13:46



[bhs Spencer](#)

9,455 3 26 36

OK, that makes sense, thanks! – [Richard](#) Jun 3 '15 at 14:52

JSON.parse('') doesn't work I got the error: JSON::ParserError: 757: unexpected token at '' – [Sam](#) Dec 8 '15 at 1:28

I just ran `JSON.parse('');` in the Chrome console and it works as expected. – [bhs Spencer](#) Dec 8 '15 at 2:11

Yet a bare `null` value is not valid JSON either and `JSON.parse(null) === null`. JS craziness! – [abhillman](#) Dec 3 '16 at 23:37

3 [@abhillman](#) that is because all valid JSON must be a string and null is not a string. – [bhs Spencer](#) Dec 4 '16 at 19:45

Use try-catch to avoid it:

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```
var result = null;
try {
  // if jQuery
  result = $.parseJSON(JSONstring);
  // if plain js
  result = JSON.parse(JSONstring);
}
catch(e) {
  // forget about it :)
}
```

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iamawebgeek

1,449 1 8 29



1



JSON.parse expects valid notation inside a string, whether that be object `{}`, array `[]`, string `""` or number types (int, float, doubles).

If there is potential for what is parsing to be an empty string then the developer should check for it.

If it was built into the function it would add extra cycles, since built in functions are expected to be extremely performant, it makes sense to not program them for the race case.

edited Jun 3 '15 at 14:12

answered Jun 3 '15 at 13:42



Seth McClaine

4,625 2 25 47

1 This is not correct. Try parsing a string that contains two quotes `JSON.parse(''); – bhs Spencer Jun 3 '15 at 13:51`

2 Json is not a markup language, it would be more accurate to say JSON.parse expects a string that conforms to the specification. – bhs Spencer Jun 3 '15 at 14:02

2 JSON doesn't support the int primitive type. Its called "number" and supports real values not just ints. – bhs Spencer Jun 3 '15 at 14:11



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For a valid JSON string at least a `"{}"` is required. See more at the <http://json.org/>

answered Jun 3 '15 at 13:44



mikud

54 3

3 This is not correct. A string that contains just two quote is valid JSON. – bhs Spencer Jun 3 '15 at 13:48



Because `"` is not a valid Javascript/JSON object. An empty object would be `'{}'`

For reference: https://developer.mozilla.org/en/docs/Web/JavaScript/Reference/Global_Objects/JSON/parse

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