Why does Javascript getYear() return a three digit number?

Asked 16 years, 3 months ago Modified 2 years, 3 months ago Viewed 47k times

102

Why does this javascript return 108 instead of 2008? it gets the day and month correct but not the year?

```
myDate = new Date();
year = myDate.getYear();
```

year = 108?

javascript date

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edited Sep 15, 2022 at 13:54

Motti

114k ● 56 ● 194 ● 273

asked Sep 18, 2008 at 23:53

ctrlShiftBryan

27.7k ● 26 ● 75 ● 78

31 Oh, the sins we committed trying to get through Y2K. – DGentry Sep 18, 2008 at 23:59

4 `year = myDate.getFullYear() % 100;` – Andrew Larsson Dec 4, 2012 at 20:01

14 Answers

Sorted by: Highest score (default)

133

It's a Y2K thing, only the years since 1900 are counted.

There are potential compatibility issues now that `getYear()` has been deprecated in favour of `getFullYear()` - from quirksmode:

> To make the matter even more complex, date.getYear() is deprecated nowadays and you should use date.getFullYear(), which, in turn, is not supported by the older browsers. If it works, however, it should always give the full year, ie. 2000 instead of 100.
>
> Your browser gives the following years with these two methods:

```
* The year according to getYear(): 108
```

```
* The year according to getFullYear(): 2008
```

There are also implementation differences between Internet Explorer and Firefox, as IE's implementation of `getYear()` was changed to behave like `getFullYear()` - from IBM:

> Per the ECMAScript specification, getYear returns the year minus 1900, originally meant to return "98" for 1998. getYear was deprecated in ECMAScript Version 3 and replaced with getFullYear().
>
> Internet Explorer changed getYear() to work like getFullYear() and make it Y2k-compliant, while Mozilla kept the standard behavior.

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edited Jun 20, 2020 at 9:12

Community Bot

1 • 1

answered Sep 18, 2008 at 23:58

ConroyP

41.9k • 16 • 82 • 86

1 I really wonder what idiot thought, that was a good idea. Who creates a Y2K problem 5 years from Y2k? – Dakkaron Sep 15, 2022 at 13:48

Just `.getYear() % 100` and you'll be fine, lol. 🤦‍♂️ Ran into this issue today. – Matt Borja Mar 10, 2023 at 14:52

26

Since getFullYear doesn't work in older browsers, you can use something like this:

```
Date.prototype.getRealYear = function()
{
    if(this.getFullYear)
        return this.getFullYear();
    else
        return this.getYear() + 1900;
};
```

Javascript prototype can be used to extend existing objects, much like C# extension methods. Now, we can just do this;

```
var myDate = new Date();
myDate.getRealYear();
// Outputs 2008
```

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answered Sep 19, 2008 at 0:12

FlySwat

175k • 75 • 248 • 314

8 Maybe smth like Date.prototype.getRealYear = Date.prototype.getFullYear ? Date.prototype.getFullYear : function() { return this.getYear() + 1900; }; – Valentin Golev Nov 25, 2009 at 14:43

13

Check the docs. It's not a Y2K issue -- it's a lack of a Y2K issue! This decision was made originally in C and was copied into Perl, apparently JavaScript, and probably several other languages. That long ago it was apparently still felt desirable to use two-digit years, but remarkably whoever designed that interface had enough forethought to realize they needed to think about what would happen in the year 2000 and beyond, so instead of just providing the last two digits, they provided the number of years since 1900. You could use the two digits, if you were in a hurry or wanted to be risky. Or if you wanted your program to continue to work, you could add 1900 to the result and use full-fledged four-digit years.

I remember the first time I did date manipulation in Perl. Strangely enough I **read the docs**. Apparently this is not a common thing. A year or two later I got called into the office on December 31, 1999 to fix a bug that had been discovered at the last possible minute in some contract Perl code, stuff I'd never had anything to do with. It was this exact issue: the standard date call returned years since 1900, and the programmers treated it as a two-digit year. (They assumed they'd get "00" in 2000.) As a young inexperienced programmer, it blew my mind that we'd paid so much extra for a "professional" job, and those people hadn't even bothered to read the documentation. It was the beginning of many years of disillusionment; now I'm old and cynical. :)

In the year 2000, the annual YAPC Perl conference was referred to as "YAPC 19100" in honor of this oft-reported non-bug.

Nowadays, in the Perl world at least, it makes more sense to use a standard module for date-handling, one which uses real four-digit years. Not sure what might be available for JavaScript.

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edited Sep 15, 2022 at 13:49

Dakkaron
6,258 ● 3 ● 37 ● 51

answered Sep 19, 2008 at 0:42

skiphoppy
102k ● 75 ● 179 ● 220

1 hehe... reminds me of the Dilbert cartoon... "have you read the story about a spanish guy named Manual?" ;) – Adhip Gupta Sep 20, 2008 at 21:54

I believe @skiphoppy meant adding 1900 to getYear() would produce the desired full year. It's akin to adding +1 to getMonth() when retrieving human readable number of the month. Example: var ts = new Date(); var fullYear = (ts.getYear()+1900); But using getFullYear() is preferred. Example: var fullYear = new Date().getFullYear(); – recurse May 18, 2018 at 13:14

6

It must return the number of years since the year 1900.

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answered Sep 18, 2008 at 23:55

Paige Ruten
176k ● 37 ● 182 ● 199

4

use `date.getFullYear()`.

This is (as correctly pointed out elsewhere) is a Y2K thing. Netscape (written before 2000) originally returned, for example `98` from `getYear()`. Rather than return to `00`, it instead returned `100` for the year 2000. Then other browsers came along and did it differently, and everyone was unhappy as incompatibility reigned.

Later browsers supported `getFullYear` as a standard method to return the complete year.

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edited Sep 19, 2008 at 0:01

answered Sep 18, 2008 at 23:55

Dan
63.3k ● 10 ● 66 ● 80

3

This question is so old that it makes me weep with nostalgia for the dotcom days!

That's right, Date.getYear() returns the number of years since 1900, just like Perl's localtime(). One wonders why a language designed in the 1990s wouldn't account for the century turnover, but what can I say? You had to be there. It sort of made a kind of sense at the time (like pets.com did).

Before 2000, one might have been tempted to fix this bug by appending "19" to the result of getYear() resulting in the "year 19100 bug". Others have already answered this question sufficiently (add 1900 to the result of getDate()).

Maybe the book you're reading about JavaScript is a little old?

Thanks for the blast from the past!

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answered Sep 19, 2008 at 0:22

jjohn
10.1k ● 4 ● 22 ● 21

> The reason the language (Perl) didn't account for it is because it was blindly copying a C design decision that had been made far earlier. (20 years?) – skiphoppy Sep 19, 2008 at 15:20

> I was throwing shade on JavaScript, not Perl. Perl often exposes underlying C routines rather directly. As you say, it is a product of its time. JS, designed at least a decade later, could have

gone a different route. – jjohn Jun 22, 2019 at 12:50

2

You should, as pointed out, never use `getYear()`, but instead use `getFullYear()`.

The story is however not as simple as "IE implements `GetYear()` as `getFullYear()`. Opera and IE these days treat `getYear()` as `getYear()` was originally specified for dates before 2000, but will treat it as `getFullYear()` for dates after 2000, while webkit and Firefox stick with the old behavior

This outputs 99 in all browsers:

```
javascript:alert(new Date(917823600000).getYear());
```

This outputs 108 in FF/WebKit, and 2008 in Opera/IE:

```
javascript:alert(new Date().getYear());
```

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edited Sep 20, 2008 at 9:28

answered Sep 19, 2008 at 9:46

Arve
4,262 ● 1 ● 18 ● 4

1

It's dumb. It dates to pre-Y2K days, and now just returns the number of years since 1900 for legacy reasons. Use getFullYear() to get the actual year.

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answered Sep 18, 2008 at 23:58

joelhardi
11.2k ● 3 ● 35 ● 38

1

I am using `date.getUTCFullYear()`; working without problems.

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edited Dec 15, 2012 at 9:18

fthiella
49k ● 15 ● 95 ● 107

answered Aug 10, 2010 at 9:26

D3vito
11 ● 1

The number you get is the number of years since 1900. Don't ask me why..

0

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answered Sep 18, 2008 at 23:55

Nils Pipenbrinck

86.2k ● 33 ● 155 ● 223

As others have said, it returns the number of years since 1900. The reason why it does *that* is that when JavaScript was invented in the mid-90s, that behaviour was both convenient and consistent with date-time APIs in other languages. Particularly C. And, of course, once the API was established they couldn't change it for backwards compatibility reasons.

0

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answered Sep 18, 2008 at 23:58

user11318

9,343 ● 2 ● 27 ● 25

BTW, different browsers might return different results, so it's better to skip this function altogether and and use getFullYear() always.

0

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answered Sep 19, 2008 at 0:03

Milan Babuškov

61k ● 49 ● 130 ● 180

---

var date_object=new Date(); var year = date_object.getYear(); if(year < 2000) { year = year + 1900; } //u will get the full year ....

0

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answered Nov 25, 2008 at 7:03

vinoth

---

it is returning 4 digit year - 1900, which may have been cool 9+ years ago, but is pretty retarded now. Java's java.util.Date also does this.

-1

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answered Sep 18, 2008 at 23:55

user17163

761 ● 5 ● 4