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When should I use a trailing slash in my URL?

Asked 8 years, 6 months ago Active 1 year, 2 months ago Viewed 137k times



261



83

When should a trailing slash be used in a URL? For example - should my URL look like `/about-us/` or like `/about-us` ?

I am fully aware of the SEO-related issues - duplicate content and the canonical thing; I'm trying to figure out which one I should use in the context of serving pages *correctly* alone.

For example, my colleague is thinking that a trailing slash at the end means it's a "folder" - a "directory", so this is not a correct style. But I think that without a slash in the end - it's not quite correct either, because it almost looks like a folder, but it isn't and it's not a normal file either, but a filename without extension.

Is there a proper way of knowing which to use?

url

url-rewriting

seo

trailing-slash

url-design

edited Feb 7 '16 at 18:41



Tim Post ♦

30.3k 15 99 158

asked May 10 '11 at 10:27



Denis

3,307 3 15 19

Trailing slash, but in my opinion it's mainly aesthetics. Look and feel. – [Eric Herlitz](#) May 10 '11 at 10:29

3 Same question on Pro Webmasters: [Does it make a difference if your URL path ends in a trailing slash or not?](#) – [Stephen Ostermiller](#) Apr 13 '15 at 13:44

4 This question is posed as one of *preference*, and thus would seem to be off topic as *primarily opinion-based*. However, as [my answer](#) shows, in fact posing this question as a matter of preference is a mistake: this is an XY problem, and the underlying "real" question has a precise technical answer, and thus is not *primarily opinion based*. – [Raedwald](#) Jan 4 '16 at 12:58 ✎

Questions about what types of URLs Google likes are not programming related (as mentioned in [tag wiki](#)) and are off-topic for Stackoverflow. – [Quentin](#) Jan 4 '16 at 13:06

I've made a few edits to your question, please double check them when you have the opportunity to do so. Thanks :) – [Tim Post](#) ♦ Feb 7 '16 at 18:43

8 Answers



127



In my personal opinion trailing slashes are misused.

Basically the URL format came from the same UNIX format of files and folders, later on, on DOS systems, and finally, adapted for the web.

A typical URL for this book on a Unix-like operating system would be a file path such as `file:///home/username/RomeoAndJuliet.pdf`, identifying the electronic book saved in a file on a local hard disk.

Source: [Wikipedia: Uniform Resource Identifier](#)

Another good source to read: [Wikipedia: URI Scheme](#)

According to RFC 1738, which defined URLs in 1994, when resources contain references to other resources, they can use relative links to define the location of the second resource as if to say, "in the same place as this one except with the following relative path". It went on to say that such relative URLs are dependent on the original URL containing a hierarchical structure against which the relative link is based, and that the ftp, http, and file URL schemes are examples of some that can be considered hierarchical, **with the components of the hierarchy being separated by "/"**.

Source: [Wikipedia Uniform Resource Locator \(URL\)](#)

Also:

That is the question we hear often. Onward to the answers! Historically, it's common for URLs with a trailing slash to indicate a directory, and those without a trailing slash to denote a file:

<http://example.com/foo/> (with trailing slash, conventionally a directory)

<http://example.com/foo> (without trailing slash, conventionally a file)

Source: [Google WebMaster Central Blog - To slash or not to slash](#)

Finally:

1. A slash at the end of the URL makes the address look "pretty".
2. A URL without a slash at the end and without an extension looks somewhat "weird".

3. You will never name your CSS file (for example) <http://www.sample.com/stylesheet/> would you?

BUT I'm being a proponent of web best practices regardless of the environment. It can be wonky and unclear, just as you said about the URL with no ext.

edited Nov 27 '13 at 3:03



Qantas 94 Heavy

13.9k 15 57 75

answered May 10 '11 at 11:19



Dementic

12.7k 15 57 85

- 1 This is weird, you can not name a file "stylesheet/" - and slash or no slash are entirely different resources on the server, no matter how the URL looks – [nico gawenda](#) Apr 10 '13 at 8:51
- 10 @nicogawenda, .htaccess can do all sorts of magic ;) your CSS might actually be a php file! – [acSlater](#) Apr 16 '13 at 15:07
- 4 Web servers are often set up by default to serve `index.html` (or similarly named file) when a directory is accessed, so `/foo/` is `/foo/index.html` without the extra mess. Also, in the past, browsers would append `/` to the domain name, but they (Firefox, Chrome, Opera) have since changed to omit the `/` when accessing the homepage. – [Ob10011](#) Mar 7 '14 at 20:03
- 4 I agree with @bfrohs. Surely default pages for directories contravene this principle. If we are to enforce 'trailing slash = directory', then surely all urls which point at a directory must either return a directory listing or a 403 forbidden http response. – [Marvin](#) Mar 16 '14 at 20:57
- 10 I'm not sure if points #1 and 2 in the "Finally" section are still accurate. Over the years since this was originally written, tastes have changed. I haven't studied this in detail, but it seems that on newer websites, it's more common and "prettier" to omit the slash. – [speedplane](#) Jun 4 '16 at 7:07



154



It is not a question of preference. `/base` and `/base/` have different semantics. In many cases, the difference is unimportant. But it is important when there are relative URLs.

- child relative to `/base/` is `/base/child`.
- child relative to `/base` is (perhaps surprisingly) `/child`.

answered May 8 '13 at 15:51



Raedwald

34.4k 23 104 174

- 4 Helpful article that goes into some depth on this: cdivilly.wordpress.com/2014/03/11/... – [Hephaestus](#) Oct 23 '16 at 7:12 ✎
- 3 Yes, I think this, along with SEO, are the most important things to this question. – [user2875289](#) Aug 3 '17 at 6:04

Just went through this problem when using .Net's `Uri.MakeRelativeUri`. Results reflect exactly what you said. I fixed the issue by adding the trailing

slash to my base Uri . – [julealgon](#) Dec 18 '18 at 21:32



58



I'm always surprised by the extensive use of trailing slashes on non-directory URLs (WordPress among others). This really shouldn't be an either-or debate because putting a slash after a resource is semantically wrong. The web was designed to deliver addressable resources, and those addresses - URLs - were designed to emulate a *nix-style file-system hierarchy. In that context:

- Slashes always denote directories, never files.
- Files may be named anything (with or without extensions), but cannot contain or end with slashes.

Using these guidelines, it's wrong to put a slash after a non-directory resource.

edited Dec 13 '13 at 5:38

answered Sep 9 '11 at 16:40



[Yarin](#)

119k

126

334

464

49 "slashes after directories, not after resources": URLs do not refer to two types of things, "resources" and "directories"; they refer to one kind of thing: resources. The clue is in the R of URL. – [Raedwald](#) May 8 '13 at 15:53

30 And everything in a *nix file system is a file, but directories still exist. What's your point? – [Yarin](#) Dec 13 '13 at 5:34

6 Whether it's served by a file or a directory internally, what the user sees is just a web page. And [example.com/about](#) could actually be reading from [example.com/about/index.html](#). – [musiphil](#) Oct 15 '14 at 16:50

1 @DavidRR: You're right. And the browser needs the redirect because the name resolution has to happen from inside `directory` (otherwise, `image.png` in `http://hostname/directory` would point to `http://hostname/image.png`). I was just saying that the distinction between a file and a directory may not be very important from the user's point of view. – [musiphil](#) Oct 15 '14 at 23:42

2 I agree with your result, but I'm not sure we should be designing our URL system to emulate *nix-style file systems. That may have originally served a purpose, but now much less so. – [speedplane](#) Jun 4 '16 at 7:09



25



That's not really a question of aesthetics, but indeed a technical difference. The directory thinking of it is totally correct and pretty much explaining everything. Let's work it out:

You are back in the stone age now or only serve static pages

You have a fixed directory structure on your web server and only static files like images, html and so on — no server side scripts or whatsoever.

A browser requests `/index.htm` , it exists and is delivered to the client. Later you have lots of - let's say - DVD movies reviewed and a html page for each of them in the `/dvd/` directory. Now someone requests `/dvd/adams_apples.htm` and it is delivered because it is there.

At some day, someone just requests `/dvd/` - *which is a directory* and the server is trying to figure out what to deliver. Besides access restrictions and so on there are two possibilities: Show the user the directory content (I bet you already have seen this somewhere) or show a default file (in Apache it is: `DirectoryIndex`: sets the file that Apache will serve if a directory is requested.)

So far so good, this is the expected case. It already shows the difference in handling, so let's get into it:

At 5:34am you made a mistake uploading your files

(Which is by the way completely understandable.) So, you did something entirely wrong and instead of uploading `/dvd/the_big_lebowski.htm` you uploaded that file as `dvd` (with no extension) to `/` .

Someone bookmarked your `/dvd/` directory listing (of course you didn't want to create and always update that nifty `index.htm`) and is visiting your web-site. Directory content is delivered - all fine.

Someone heard of your list and is typing `/dvd` . And now it is screwed. Instead of your DVD directory listing the server finds a file with that name and is delivering your Big Lebowski file.

So, you delete that file and tell the guy to reload the page. Your server looks for the `/dvd` file, but it is gone. Most servers will then notice that there is a directory with that name and tell the client that what it was looking for is indeed somewhere else. The response will most likely be be:

```
Status Code:301 Moved Permanently With Location: http://[...]/dvd/
```

So, totally ignoring what *you* think about directories or files, the server only can handle such stuff and - unless told differently - decides for you about the meaning of "slash or not".

Finally after receiving this response, the client loads `/dvd/` and everything is fine.

Is it fine? No.

"Just fine" is not good enough for you

You have some dynamic page where everything is passed to `/index.php` and gets processed. Everything worked quite good until now, but that entire thing starts to feel slower and you investigate.

Soon, you'll notice that `/dvd/list` is doing exactly the same: Redirecting to `/dvd/list/` which is then internally translated into `index.php?controller=dvd&action=list` . One additional request - but even worse! `customer/login` redirects to `customer/login/` which in

turn redirects to the HTTPS URL of `customer/login/` . You end up having *tons* of unnecessary HTTP redirects (= additional requests) that make the user experience slower.

Most likely you have a default directory index here, too: `index.php?controller=dvd` with no `action` simply internally loads `index.php?controller=dvd&action=list` .

Summary:

- **If it ends with `/` it can *never* be a file.** No server guessing.
- **Slash or no slash are entirely different meanings.** There is a technical/resource difference between "slash or no slash", and you should be aware of it and use it accordingly. Just because the server most likely loads `/dvd/index.htm` - or loads the correct script stuff - when you say `/dvd` : It does it, but not because you made the right request. Which would have been `/dvd/` .
- **Omitting the slash even if you indeed *mean* the slashed version gives you an additional HTTP request penalty.** Which is always bad (think of mobile latency) and has more weight than a "pretty URL" - especially since crawlers are not as dumb as SEOs believe or want you to believe ;)

edited Jul 29 '14 at 13:24



kuporific

7,407 1 31 43

answered Apr 9 '13 at 17:44



nico gawenda

2,867 2 21 34

1 So in a summary are you all for adding the slash at the end ? :) – Denis Jun 12 '13 at 18:26

2 I'm all for using it when you mean it;) For example speaking of controllers and actions it would be: Controllers should end with slash. When you reference a file or an action omit the slash – nico gawenda Jun 14 '13 at 4:48

Hold on, why would you omit the slash for an action? As per your example, isn't that going to result in the extra redirected request? I mean, presumably your server is smart enough to recognise a controller action and won't actually redirect to look for files or directories in that case, but it still goes against your example doesn't it? – Adam Goodwin Jul 31 '16 at 22:03

7 I don't understand your example. What filesystem allows a directory and another regular file with the same name (`dvd`)? – musiphil Nov 4 '16 at 18:47

18 When you make your URL `/about-us/` (with the trailing slash), it's easy to start with a single file `index.html` and then later expand it and add more files (e.g. `our-CEO-john-doe.jpg`) or even build a hierarchy under it (e.g. `/about-us/company/` , `/about-us/products/` , etc.) as needed, *without changing the published URL*. This gives you a great flexibility.

answered Oct 15 '14 at 17:00



musiphil

3,111 2 14 22

-
- 2 That's a good point :) – [Denis](#) Oct 16 '14 at 9:47
-
- 8 I'm sorry I didn't get it . if I start with `/about-us` or `/about-us/` I still need to change the published URL in both cases if I expanded the directory. the new file will be `/about-us/new-file.html` in both cases !! what am I missing here? – [Accountant](#) Sep 8 '16 at 10:48
-
- 2 @Accountant I think OP may be thinking that if you publish `"/about-us"` without a trailing slash then you can't later add sub-resources using relative paths. When you don't have the trailing slash the browser will believe a reference to `"ceo.jpg"` on the about page will live at the root of your domain and will request `example.com/ceo.jpg`. With the slash, the browser will request `example.com/about-us/ceo.jpg` and you can statically route a whole tree of folders for your site as you expand. – [daw](#) Jan 20 '17 at 10:40
-
- 1 FYI - I don't believe any of the above is true - Why can't there be an `/about-us` and `/about-us/company` ? In terms of serving the files, both Apache and IIS can handle this just fine, so I disagree. – [sean2078](#) Jun 4 '17 at 15:50
-
- 1 @sean2078 Yes, but if, from `/about-us` you wanna link to `/about-us/company` , you have to use `href="/about-us/company"` or `href="./company"` (not sure about that one, though). If you are on `/about-us/` , though, it's simple: `href="company"` . – [Adowrath](#) Sep 5 '17 at 13:10
-



10

Other answers here seem to favor omitting the trailing slash. There is one case in which a trailing slash will help with search engine optimization (SEO). That is the case that your document has what appears to be a file extension that is not `.html` . This becomes an issue with sites that are rating websites. They might choose between these two urls:

- `http://mysite.example.com/rated.example.com`
- `http://mysite.example.com/rated.example.com/`

In such a case, I would choose the one **with the trailing slash**. That is because the `.com` extension is an extension for Windows executable command files. Search engines and virus checkers often dislike URLs that appear that they may contain malware distributed through such mechanisms. The trailing slash seems to mitigate any concerns, allowing the page to rank in search engines and get by virus checkers.

If your URLs have no `.` in the file portion, then I would recommend omitting the trailing slash for simplicity.

edited Apr 25 '13 at 15:22

answered Apr 10 '13 at 10:17



[Stephen Ostermiller](#)

16k 8 66 84

No real search engines are that stupid. This answer is pure speculation. – [Navin](#) Sep 22 '17 at 7:57

I've actually seen this issue with Google. That was several years ago, so I'm not sure if that would still be the case today. – [Stephen Ostermiller](#) Sep 22 '17 at 8:20

Huh, that's a good data point. Though we still don't know if it was caused by something else. – [Navin](#) Sep 22 '17 at 9:18



10



Who says a file name needs an extension?? take a look on a *nix machine sometime...
I agree with your friend, no trailing slash.

answered May 10 '11 at 10:34



[Aaron Gage](#)

2,107 1 14 14



3



From an SEO perspective, choosing whether or not to include a trailing slash at the end of a URL is irrelevant. These days, it is common to see examples of both on the web. A site will not be penalized either way, nor will this choice affect your website's search engine ranking or other SEO considerations.

Just choose a URL naming convention you prefer, and include a canonical meta tag in the `<head>` section of each webpage.

Search engines may consider a single webpage as two separate duplicate URLs when they encounter it with and without the trailing slash, ie `example.com/about-us/` and `example.com/about-us`.

It is best practice to include a canonical meta tag on each page because you cannot control how other sites link to your URLs.

The canonical tag looks like this: `<link rel="canonical" href="https://example.com/about-us" />`. Using a canonical meta tag ensures that search engines only count each of your URLs once, regardless of whether other websites include a trailing slash when they link to your site.

answered Sep 11 '18 at 0:54



[riot](#)

169 2 7
