

SUBDOMAIN Function

Finds the value a subdomain value from a valid URL. Input values must be of URL or String type. In this implementation, a subdomain value is the first group of characters in the URL after any protocol identifiers (`http://` or `https://`, for example).

- For more information, see *Structure of a URL* .
- You can also extract domain values by function. See *DOMAIN Function*.

Basic Usage

URL literal example:

```
derive type:single value: SUBDOMAIN('http://www.example.com' ) as: 'myDomain'
```

Output: Generates a column containing the value `www`.

```
derive type:single value: SUBDOMAIN('http://www.exempl.e.com') as: 'myDomain'
```

Output: Generates a column containing the value `www.exempl`.

Column reference example:

```
derive type:single value: SUBDOMAIN(myURLs) as: 'myDomain'
```

Output: Generates the new `myDomain` column containing the subdomain values extracted from the `myURLs` column.

Syntax and Arguments

```
derive type:single value: SUBDOMAIN(column_url)
```

Argument	Required?	Data Type	Description
<code>column_url</code>	Y	string	Name of column or String or URL literal containing the sub-domain value to extract

For more information on syntax standards, see *Language Documentation Syntax Notes*.

`column_url`

Name of the column or URL or String literal whose values are used to extract the subdomain value.

- Missing input values generate missing results.
- Multiple columns and wildcards are not supported.

Usage Notes:

Required?	Data Type	Example Value
Yes	String literal or column reference (URL)	<code>http://www.example.com</code>

Examples

Tip: For additional examples, see *Common Tasks*.

Example - Domain, Subdomain, Host, and Suffix functions

This examples illustrates how you can extract component parts of a URL using the following functions:

- **DOMAIN** - extracts the domain value from a URL. See *DOMAIN Function*.
- **SUBDOMAIN** - extracts the first group after the protocol identifier and before the domain value. See *SUBDOMAIN Function*.
- **HOST** - returns the complete value of the host from an URL. See *HOST Function*.
- **SUFFIX** - extracts the suffix of a URL. See *SUFFIX Function*.
- **URLPARAMS** - extracts the query parameters and values from a URL. See *URLPARAMS Function*.
- **FILTEROBJECT** - filters an Object value to show only the elements for a specified key. See *FILTEROBJECT Function*.

Source:

Your dataset includes the following values for URLs:

URL
www.example.com
example.com/support
http://www.example.com/products/
http://1.2.3.4
https://www.example.com/free-download
https://www.example.com/about-us/careers
www.app.example.com
www.some.app.example.com
some.app.example.com
some.example.com
example.com
http://www.example.com?q1=broken%20record
http://www.example.com?query=khakis&app=pants
http://www.example.com?q1=broken%20record&q2=broken%20tape&q3=broken%20wrist

Transform:

When the above data is imported into the application, the column is recognized as a URL. All values are registered as valid, even the IPv4 address.

To extract the domain and subdomain values:

```
derive type:single value: DOMAIN(URL) as: 'domain_URL'
```

```
derive type:single value: SUBDOMAIN(URL) as: 'subdomain_URL'
```

```
derive type:single value: HOST(URL) as:host_URL'
```

```
derive type:single value: SUFFIX(URL) as:'suffix_URL'
```

You can use the Trifacta® pattern in the following transform to extract protocol identifiers, if present, into a new column:

```
extract col:URL on:`{start}%*://`
```

To clean this up, you might want to rename the column to `protocol_URL`.

To extract the path values, you can use the following regular expression:

NOTE: Regular expressions are considered a developer-level method for pattern matching. Please use them with caution. See *Text Matching*.

```
extract col: URL on: /^[^*:\\\\\/]\./.*$/
```

The above transform grabs a little too much of the URL. If you rename the column to `path_URL`, you can use the following regular expression to clean it up:

```
extract col:path_URL on:[!^\\\/].*$/
```

Drop the `path_URL` column and rename the `path_URL1` column to the dropped one. Then:

```
derive type:single value: URLPARAMS(URL) as: 'urlParams'
```

If you wanted to just see the values for the `q1` parameter, you could add the following:

```
derive type:single value: FILTEROBJECT(urlParams,'q1') as: 'urlParam_q1'
```

Results:

URL	host_URL	path_URL	protocol_URL	subdomain_URL	domain_URL	suffix_URL	urlParams	urlParam_q
www.example.com	www.example.com			www	example	com		
example.com/support	example.com	/support			example	com		
http://www.example.com/products/	www.example.com	/products/	http://	www	example	com		
http://1.2.3.4	1.2.3.4		http://					

https:// www. example.com /free-download	www. example.com	/free-download	https://	www	example	com		
https:// www. example.com /about-us /careers	www. example.com	/about-us /careers	https://	www	example	com		
www. app. example.com	www.app. example.com			www.app	example	com		
www. some. app. example.com	www.some. app. example.com			www.some.app	example	com		
some. app. example.com	some.app. example.com			some.app	example	com		
some. example.com	some. example.com			some	example	com		
example.com	example.com				example	com		
http:// www. example.com? q1=broken%20record	www. example.com		http://	www	example	com	{"q1":"broken record"}	{"q1":"broken record"}
http:// www. example.com? query=khakis &app=pants	www. example.com		http://	www	example	com	{"query":"khakis", "app":"pants"}	
http:// www. example.com? q1=broken%20record&q2=broken%20tape&q3=broken%20wrist	www. example.com		http://	www	example	com	{"q1":"broken record", "q2":"broken tape", "q3":"broken wrist"}	{"q1":"broken record"}

