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st.query_params

`st.query_params` provides a dictionary-like interface to access query parameters in your app's URL and is available as of Streamlit 1.30.0. It behaves similarly to `st.session_state` with the notable exception that keys may be repeated in an app's URL. Handling of repeated keys requires special consideration as explained below.

`st.query_params` can be used with both key and attribute notation. For example, `st.query_params.my_key` and `st.query_params["my_key"]`. All keys and values will be set and returned as strings. When you write to `st.query_params`, key-value pair prefixed with `?` is added to the end of your app's URL. Each additional pair is prefixed with `&` instead of `?`. Query parameters are cleared when navigating between pages in a multipage app.

For example, consider the following URL:

```
https://your_app.streamlit.app/?first_key=1&second_key=two&third_key=true
```

The parameters in the URL above will be accessible in `st.query_params` as:

```
{ "first_key" : "1", "second_key" : "two", "third_key" : "true" }
```

This means you can use those parameters in your app like this:

```
# You can read query params using key notation if st.query_params["first_key"] == "1": do_something()
# ...or using attribute notation if st.query_params.second_key == "two": do_something_else() # And you
can change a param by just writing to it st.query_params.first_key = 2 # This gets converted to str
automatically
```

Repeated keys

When a key is repeated in your app's URL (`?a=1&a=2&a=3`), dict-like methods will return only the last value. In this example, `st.query_params["a"]` returns `"3"`. To get all keys as a list, use the [`.get_all()`] method shown below. To set the value of a repeated key, assign the values as a list. For example, `st.query_params.a = ["1", "2", "3"]` produces the repeated key given at the beginning of this paragraph.

Limitation

`st.query_params` can't get or set embedding settings as described in [Embed your app]. `st.query_params.embed` and `st.query_params.embed_options` will raise an `AttributeError` or `StreamlitAPIException` when trying to get or set their values, respectively.

st.query_params.clear

Streamlit Version Version 1.41.0

Clear all query parameters from the URL of the app.

Function signature[source]

st.query_params.clear()

Returns

(None) No description

st.query_params.from_dict

Streamlit Version Version 1.41.0

Set all of the query parameters from a dictionary or dictionary-like object.

This method primarily exists for advanced users who want to control multiple query parameters in a single update. To set individual query parameters, use key or attribute notation instead.

This method inherits limitations from `st.query_params` and can't be used to set embedding options as described in Embed your app.

To handle repeated keys, the value in a key-value pair should be a list.

Note

`.from_dict()` is not a direct inverse of `.to_dict()` if you are working with repeated keys. A true inverse operation is `{key: st.query_params.get_all(key) for key in st.query_params}`.

Function signature[source]

st.query_params.from_dict(params)

Parameters

params (dict) A dictionary used to replace the current query parameters.

Example

```
import streamlit as st

st.query_params.from_dict({"foo": "bar", "baz": [1, "two"]})
```

st.query_params.get_all

Streamlit Version Version 1.41.0

Get a list of all query parameter values associated to a given key.

When a key is repeated as a query parameter within the URL, this method allows all values to be obtained. In contrast, dict-like methods only retrieve the last value when a key is repeated in the URL.

Function signature[source]

st.query_params.get_all(key)

Parameters

key (str) The label of the query parameter in the URL.

Returns

(List[str]) A list of values associated to the given key. May return zero, one, or multiple values.

st.query_params.to_dict

Streamlit Version Version 1.41.0

Get all query parameters as a dictionary.

This method primarily exists for internal use and is not needed for most cases. `st.query_params` returns an object that inherits from `dict` by default.

When a key is repeated as a query parameter within the URL, this method will return only the last value of each unique key.

Function signature[source]

st.query_params.to_dict()

Returns

(Dict[str,str]) A dictionary of the current query paramters in the app's URL.

←Previous: st.session_stateNext: st.experimental_get_query_params→

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