

## Streamlit cheat sheet

[streamlit.io](https://streamlit.io) . summary of the [docs](#)

based on streamlit v0.68.0

### How to install and import

```
$ pip install streamlit
```

### Import convention

```
>>> import streamlit as st
```

### Add widgets to sidebar

```
st.sidebar.<widget>
>>> a = st.sidebar.radio('R:', [1,2])
```


### Command line

```
$ streamlit --help
$ streamlit run your_script.py
$ streamlit hello
$ streamlit config show
$ streamlit cache clear
$ streamlit docs
$ streamlit --version
```

### Pre-release features

#### Beta and experimental features

```
pip uninstall streamlit
pip install streamlit-nightly --upgre
```

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## Magic commands

```
# Magic commands implicitly `st.write()`
''' _This_ is some __Markdown__ '''
a=3
'dataframe:', data
```

## Display text

```
st.text('Fixed width text')
st.markdown('_Markdown_') # see *
st.latex(r''' e^{i\pi} + 1 = 0 ''')
st.write('Most objects') # df, err, func, keras!
st.write(['st', 'is <', 3]) # see *
st.title('My title')
st.header(My header')
st.subheader('My sub')
st.code('for i in range(8): foo()')
* optional kwarg unsafe_allow_html = True
```

## Display data

```
st.dataframe(my_dataframe)
st.table(data.iloc[0:10])
st.json({'foo': 'bar', 'fu': 'ba'})
```

## Display charts

```
st.line_chart(data)
st.area_chart(data)
st.bar_chart(data)
st.pyplot(fig)
st.altair_chart(data)
st.vega_lite_chart(data)
st.plotly_chart(data)
st.bokeh_chart(data)
st.pydeck_chart(data)
st.deck_gl_chart(data)
st.graphviz_chart(data)
st.map(data)
```

## Display media

```
st.image('./header.png')
st.audio(data)
st.video(data)
```

## Display interactive widgets

```
st.button('Hit me')
st.checkbox('Check me out')
st.radio('Radio', [1,2,3])
st.selectbox('Select', [1,2,3])
st.multiselect('Multiselect', [1,2,3])
st.slider('Slide me', min_value=0, max_value=10)
st.select_slider('Slide to select', options=[1,'2'])
st.text_input('Enter some text')
st.number_input('Enter a number')
st.text_area('Area for textual entry')
st.date_input('Date input')
st.time_input('Time entry')
st.file_uploader('File uploader')
st.beta_color_picker('Pick a color')
```

Use widgets' returned values in variables:

```
>>> for i in range(int(st.number_input('Num:'))): foo()
>>> if st.sidebar.selectbox('I:', ['f']) == 'f': b()
>>> my_slider_val = st.slider('Quinn Mallory', 1, 88)
>>> st.write(slider_val)
```

## Control flow

```
st.stop()
```

## Lay out your app

```
st.beta_container()
st.beta_columns(spec)
>>> col1, col2 = st.beta_columns(2)
>>> col1.subheader('Columnisation')
st.beta_expander('Expander')
>>> with st.beta_expander('Expand'):
>>>     st.write('Juicy deets')
```

## Display code

```
st.echo()
>>> with st.echo():
>>>     st.write('Code will be executed and printed')
```

## Display progress and status

```
st.progress(progress_variable_1_to_100)
st.spinner()
>>> with st.spinner(text='In progress'):
>>>     time.sleep(5)
>>>     st.success('Done')
st.balloons()
st.error('Error message')
st.warning('Warning message')
st.info('Info message')
st.success('Success message')
st.exception(e)
```

## Placeholders, help, and options

```
st.empty()
>>> my_placeholder = st.empty()
>>> my_placeholder.text('Replaced!')
st.help(pandas.DataFrame)
st.get_option(key)
st.set_option(key, value)
st.beta_set_page_config(layout='wide')
```

## Mutate data

```
DeltaGenerator.add_rows(data)
>>> my_table = st.table(df1)
>>> my_table.add_rows(df2)
>>> my_chart = st.line_chart(df1)
>>> my_chart.add_rows(df2)
```

## Optimize performance

```
@st.cache
>>> @st.cache
... def foo(bar):
...     # Mutate bar
...     return data
>>> # Executes d1 as first time
>>> d1 = foo(ref1)
>>> # Does not execute d1; returns cached value, d1==d2
>>> d2 = foo(ref1)
>>> # Different arg, so function d1 executes
>>> d3 = foo(ref2)
```