Streamlit library

Get started - Streamlit Docs

downloading Installation helps you set up your virtual environment and walks you through installing Streamlit on Windows, macOS, and Linux. Regardless of which package management tool and OS

▲ https://docs.streamlit.io/library/get-started

```
import streamlit as st

def main():
  return

if __name__ == '__main__':
    main()
```

Text elements

Text elements - Streamlit Docs

Streamlit apps usually start with a call to st.title to set the app's title. After that, there are 2 heading levels you can use: st.header and st.subheader. Pure text is entered with st.text, and Markdown with

▲ https://docs.streamlit.io/library/api-reference/text

```
## 타이틀
st.title("title")

## Header(큰 제목)
st.header("큰 제목")

## subheader(작은 제목)
```

```
st.subheader("작은 제목")

## 텍스트
st.text("hello Multi")

#caption
st.caption('캡션')
```

Markdown

```
#Mark Down
st.markdown('Markdown')

st.markdown('Streamlit is **_really_ cool**.')
st.markdown("This text is :red[colored red], and this is **:blue[colored]** and bold.")
st.markdown(":green[$\sqrt{x^2+y^2}=1$] is a Pythagorean identity. :pencil:")
```

Streamlit is ***really*** **cool**.

This text is colored red, and this is **colored** and bold.

$\sqrt{x^2+y^2}=1$ is a Pythagorean identity. 📝

Data display elements

```
# DataFrame
df = pd.DataFrame(
   np.random.randn(50, 20),
   columns=('col %d' % i for i in range(20)))

st.dataframe(df)  # Same as st.write(df)

#Json 파일
st.json({'name':'Jaeseong', 'gender' : 'male'})



# 온도 출력
```

```
st.metric(label="Temperature", value="70 °F", delta="1.2 °F")


# 위도 경도에 맞는 지도를 출력
df = pd.DataFrame(
    np.random.randn(1000, 2) / [50, 50] + [37.76, -122.4],
    columns=['lat', 'lon'])

st.map(df)
```

Write

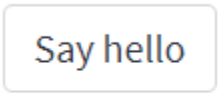
- # Magic key, 아무 객체나 입력하면 알아서 표

```
# Markdown
st.write('Hello, *World!* :sunglasses:')


# DataFrame
st.write(1234)
st.write(pd.DataFrame({
    'first column': [1, 2, 3, 4],
    'second column': [10, 20, 30, 40],
}))


# Chart
import altair as alt

df = pd.DataFrame(
    np.random.randn(200, 3),
    columns=['a', 'b', 'c'])

c = alt.Chart(df).mark_circle().encode(
    x='a', y='b', size='c', color='c', tooltip=['a', 'b', 'c'])

st.write(c)
```

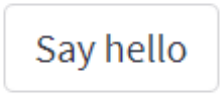
Button

```
import streamlit as st
```

```
if st.button('Say hello'): # 버튼
    st.write('Why hello there')
else:
    st.write('Goodbye')
```



Goodbye



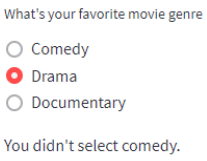
Why hello there

다운로드 버튼

```
# 다운로드 버튼
import streamlit as st

text_contents = '''This is some text'''
st.download_button('Download some text', text_contents)
```

Radio 버튼

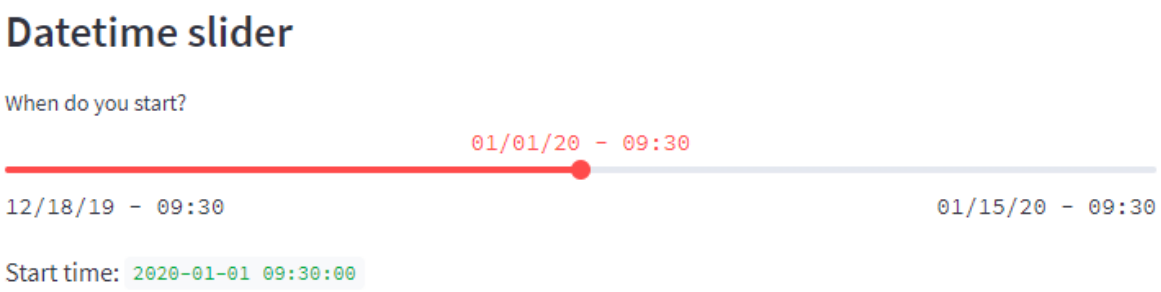
```
genre = st.radio(
    "What\'s your favorite movie genre",
    ('Comedy', 'Drama', 'Documentary'))

if genre == 'Comedy':
    st.write('You selected comedy.')
else:
    st.write("You didn\'t select comedy.")
```



Input Box, Caption, Code, Latex 등도 가능

Sidebar

```
from datetime import datetime

start_time = st.slider(
    "When do you start?",
    value=datetime(2020, 1, 1, 9, 30),
    format="MM/DD/YY - hh:mm")
st.write("Start time:", start_time)
```



video, Image, Audio

```
import streamlit as st

video_file = open('myvideo.mp4', 'rb')
video_bytes = video_file.read()

# video
st.video(video_bytes)

# audio
st.audio(note_la, sample_rate=sample_rate)

# image
st.image(image, caption='Sunrise by the mountains')
```

Spinner

- 연산의 진행상황을 나타냄

message

- 사용자에게 메세지 전달

```
st.error('Error message') #에러

st.warning('Warning message') # 경고

st.info('Info message') # 정보

st.success('Success message') #성공

st.exception() #예외처리
```

Form

- 사용자에게 정로를 입력받을수 있다.