🗓 Day 4

st.write

st.write allows writing text and arguments to the Streamlit app.

In addition to being able to display text, the following can also be displayed via the st.write() command:

- Prints strings; works like `st.markdown()`
- Displays a Python `dict`
- Displays `pandas` DataFrame can be displayed as a table
- Plots/graphs/figures from `matplotlib` , `plotly` , `altair` , `graphviz` , `bokeh`
- And more (see st.write on API docs)

What we're building?

A simple app showing the various ways on how to use the st.write() command for displaying text, numbers, DataFrames and plots.

Code

Here's the code to implement the above mentioned app:

In [ ]:
```
import numpy as np
import altair as alt
import pandas as pd
import streamlit as st

st.header('st.write')

# Example 1

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

# Example 2

st.write(1234)

# Example 3

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

# Example 4

st.write('Below is a DataFrame:', df, 'Above is a dataframe.')

# Example 5
```

```
df2 = pd.DataFrame(
     np.random.randn(200, 3),
     columns=['a', 'b', 'c'])
c = alt.Chart(df2).mark_circle().encode(
     x='a', y='b', size='c', color='c', tooltip=['a', 'b', 'c'])
st.write(c)
```

The very first thing to do when creating a Streamlit app is to start by importing the `streamlit` library as `st` like so:

In [ ]:
```
import streamlit as st
```

This is followed by creating a header text for the app:

In [ ]:
```
st.header('st.write')
```

Example 1: Its basic use case is to display text and Markdown-formatted text:

In [ ]:
```
st.write('Hello, *World!* :sunglasses:')
```

Example 2: As mentioned above, it can also be used to display other data formats such as numbers:

In [ ]:
```
st.write(1234)
```

Example 3: DataFrames can also be displayed as follows:

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

Example 4: You can pass in multiple arguments:

In [ ]:
```
st.write('Below is a DataFrame:', df, 'Above is a dataframe.')
```

Example 5: Finally, you can also display plots as well by passing it to a variable as follows:

In [ ]:
```
df2 = pd.DataFrame(
     np.random.randn(200, 3),
     columns=['a', 'b', 'c'])
c = alt.Chart(df2).mark_circle().encode(
     x='a', y='b', size='c', color='c', tooltip=['a', 'b', 'c'])
st.write(c)
```

Further reading

In addition to `st.write`, you can explore the other ways of displaying text:

- st.markdown
- st.header
- st.subheader
- st.caption
- st.text
- st.latex

- st.code