Streamlit

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Streamlit

Streamlit

- Open-source Python framework to deliver dynamic data apps with only a few lines of code.
- Why choose Streamlit?
  - Simple and Pythonic: Write beautiful, easy-to-read code.
  - Fast, interactive prototyping: Let others interact with your data and provide feedback quickly.
  - Live editing: See your app update instantly as you edit your script.
  - Open-source and free

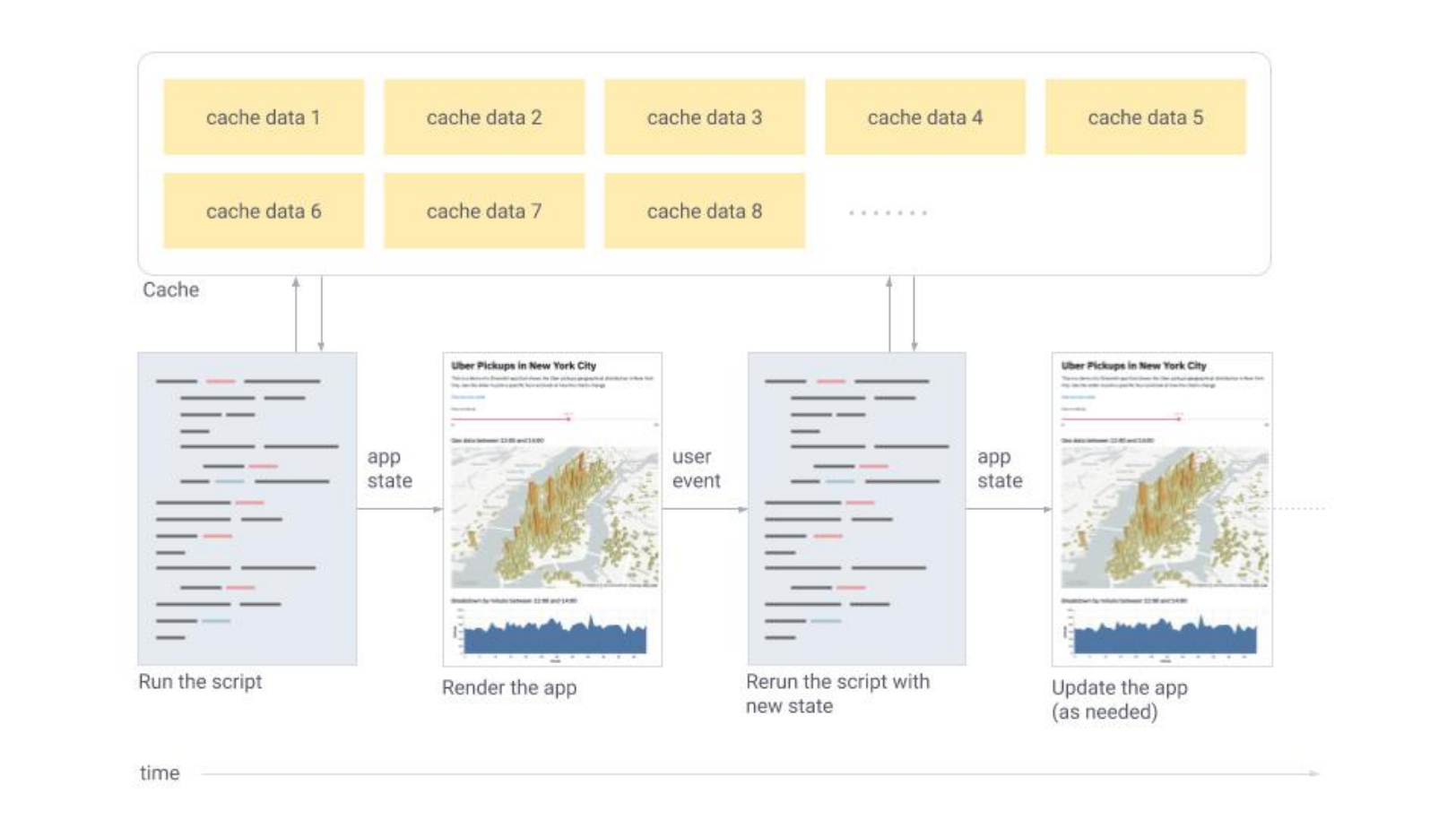
https://github.com/streamlit/streamlit

Features in Streamlit

- Streamlit apps are Python scripts that run from top to bottom.
- Every time a user opens a browser tab pointing to your app, the script is executed and a new session starts.
- As the script executes, Streamlit draws its output live in a browser.
- Every time a user interacts with a widget, your script is re-executed and Streamlit redraws its output in the browser.
- The output value of that widget matches the new value during that rerun.
- Scripts use the Streamlit cache to avoid recomputing expensive functions, so updates happen very fast.
- Session State lets you save information that persists between reruns when you need more than a simple widget.
- Streamlit apps can contain multiple pages, which are defined in separate .py files in a pages folder.

https://docs.streamlit.io/get-started/fundamentals/summary

Streamlit


cache data 1
cache data 2
cache data 3
cache data 4
cache data 5
cache data 6
cache data 7
cache data 8
Cache
app state
user event
app state
Uber Pickups in New York City
Uber Pickups in New York City
Run the script
Render the app
Rerun the script with new state
Update the app (as needed)
time

Getting started

- https://blog.streamlit.io/streamlit-quests-getting-started-with-streamlit/
- https://30days.streamlit.app/

Last words...

- Streamlit is great for
  - Fast prototyping
  - Showcasing your work
  - Initial monitoring of your data platform
- Streamlit is not ideal for
  - Complex multi-user apps
  - Long-term production systems
    - Proper BI tool, e.g. Power BI, Looker, Tableau
  - Highly customized UI
    - Proper front-end engineering, e.g. React