

# Streamlit Basic App Documentation

*This is to reflect on what went well and what went bad during the development of the basic version of the app.*

The app currently:

- Asks the user which country they are in.
- Asks the user how long they run for.
- Asks the user how long their goal running distance is.
- `df2` is created in which there are all the runs that are around the user's current running distance in his country.
- These runs are mapped.
- `df3` is created which contains all the runs that are around the user's projected distance in his country.
- These runs are mapped.
- `s2` is a merge between both, it finds which userIDs did both the current and projected distances and records those users.
- A list of all the user ids that are in this category is printed with no duplicates.
- 5 of these runners are selected and all their running distances are graphed.
- The mean distance of each of these 5 runners is displayed.
- An average of their distances is graphed.

Notes:

- The country filter is needed for time complexity.
- The aim is to ask the user their goal time for a marathon not goal distance but this data set limited it to distance.
- A random element will be introduced when picking the 5 users.
- A possible addition is adding the user's runs in the graph.

Disadvantages

- Picking 5 runners randomly can be misleading and based on luck. We can't do more than 5 due to slow processing as well as the graph looking messy. A possible solution is averaging all 60+ runners and just using the average graph.
- Having to specify your country due to time constraints.
- I am yet to identify a way of finding a way of calculating the gap between practices.

Advantages

- The app works relatively well and is quick enough in my opinion.
- Streamlit seems to have enough functionality after manipulating data frames for long enough in the right ways.
- You can import graphs from other libraries such as Altair.