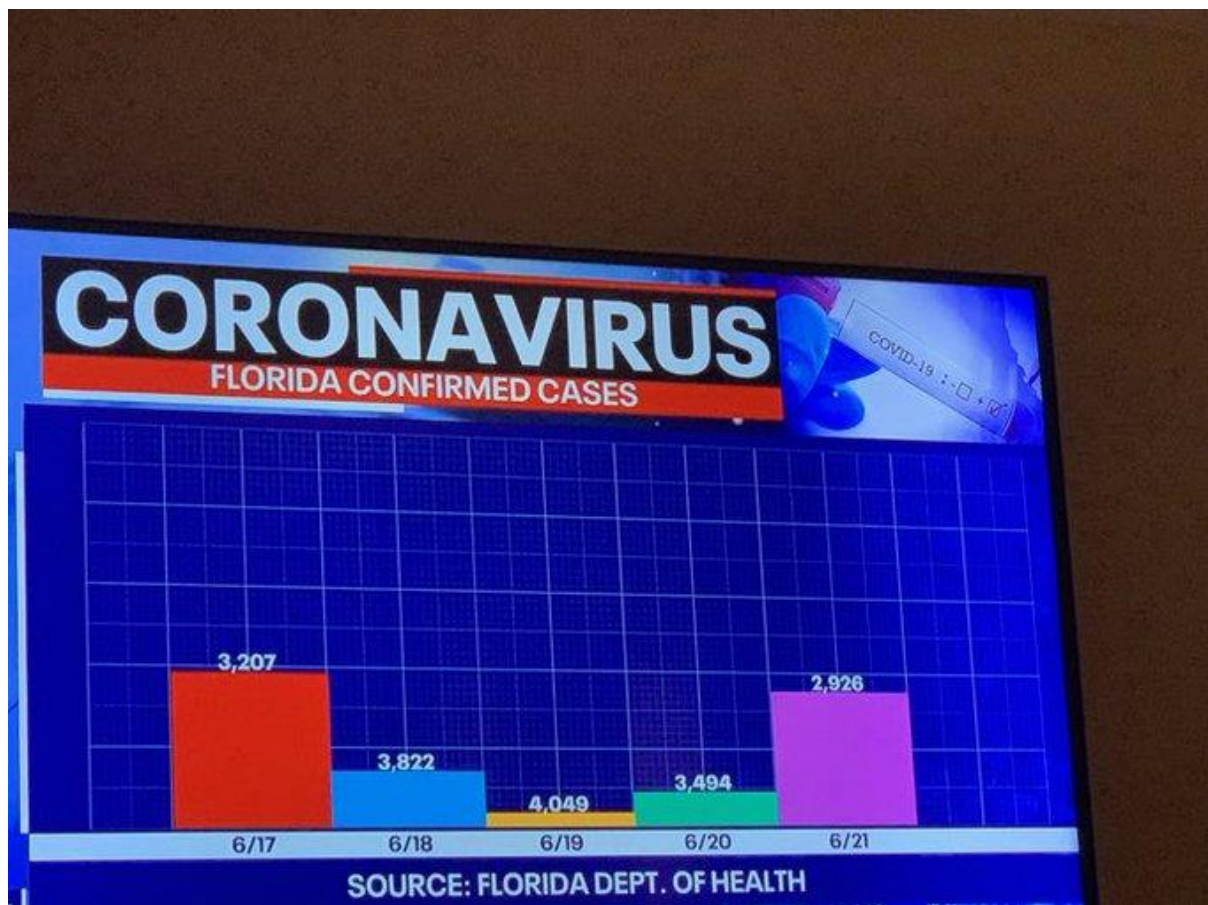


Data Visualization: Assignment 1

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Original image



URL:

<https://www.facebook.com/analytykplakal/photos/a.1764710137080468/2609382189279921>

Context: Local news station in Florida presents COVID-19 statistics.

Faults:

- Length of the chart's bars don't correspond to the number of confirmed cases. – The scale is broken.
- The units in the chart are not marked. Although x-axis units might seem obvious, both of the units are omitted.

- The number of information carrying dimensions depicted exceeds the number of dimensions in the data.

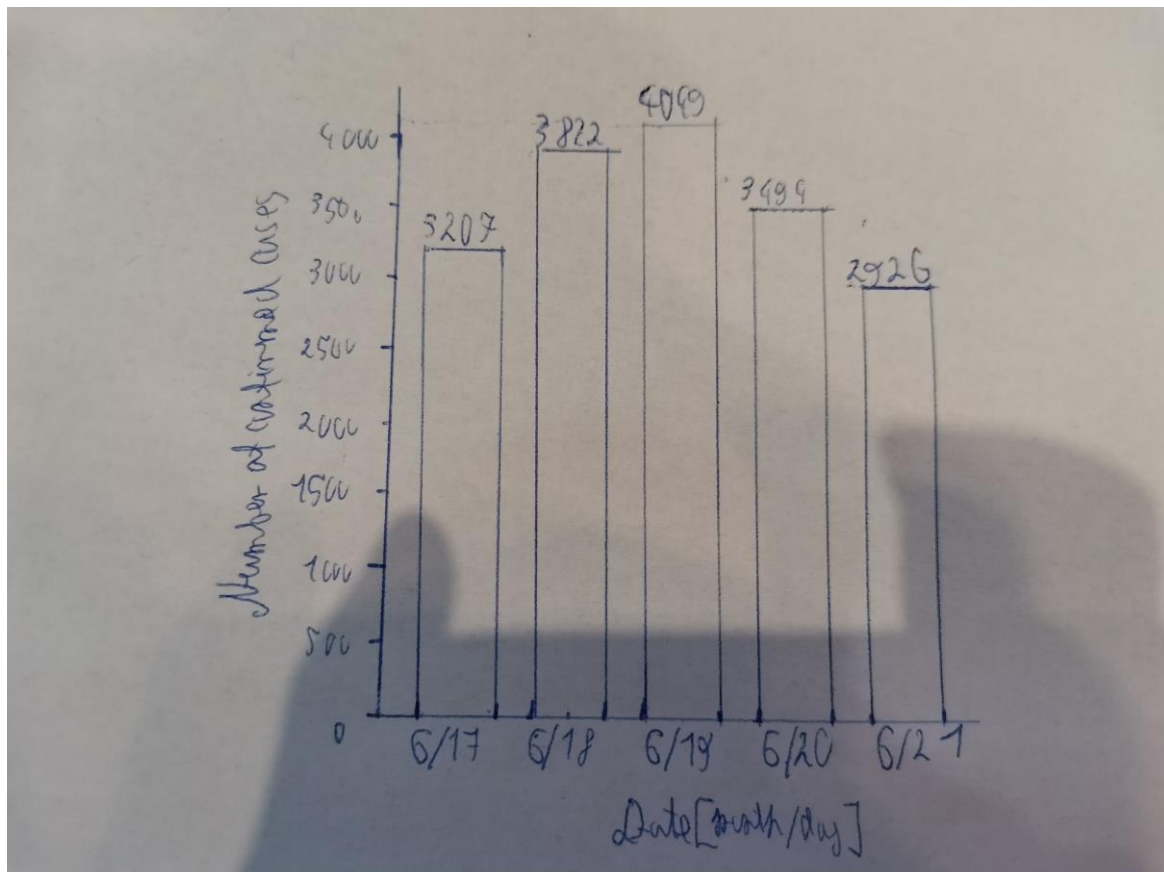
Implications:

- The chart might be wrongly interpreted, on first sight it seems as the number of confirmed Covid-19 cases is decreasing, when it actually is increasing.
- The chart is no longer self-explanatory.
- The chart becomes less readable. Not-needed coloring might trigger an emotional response (for example we associate red color with something evil).

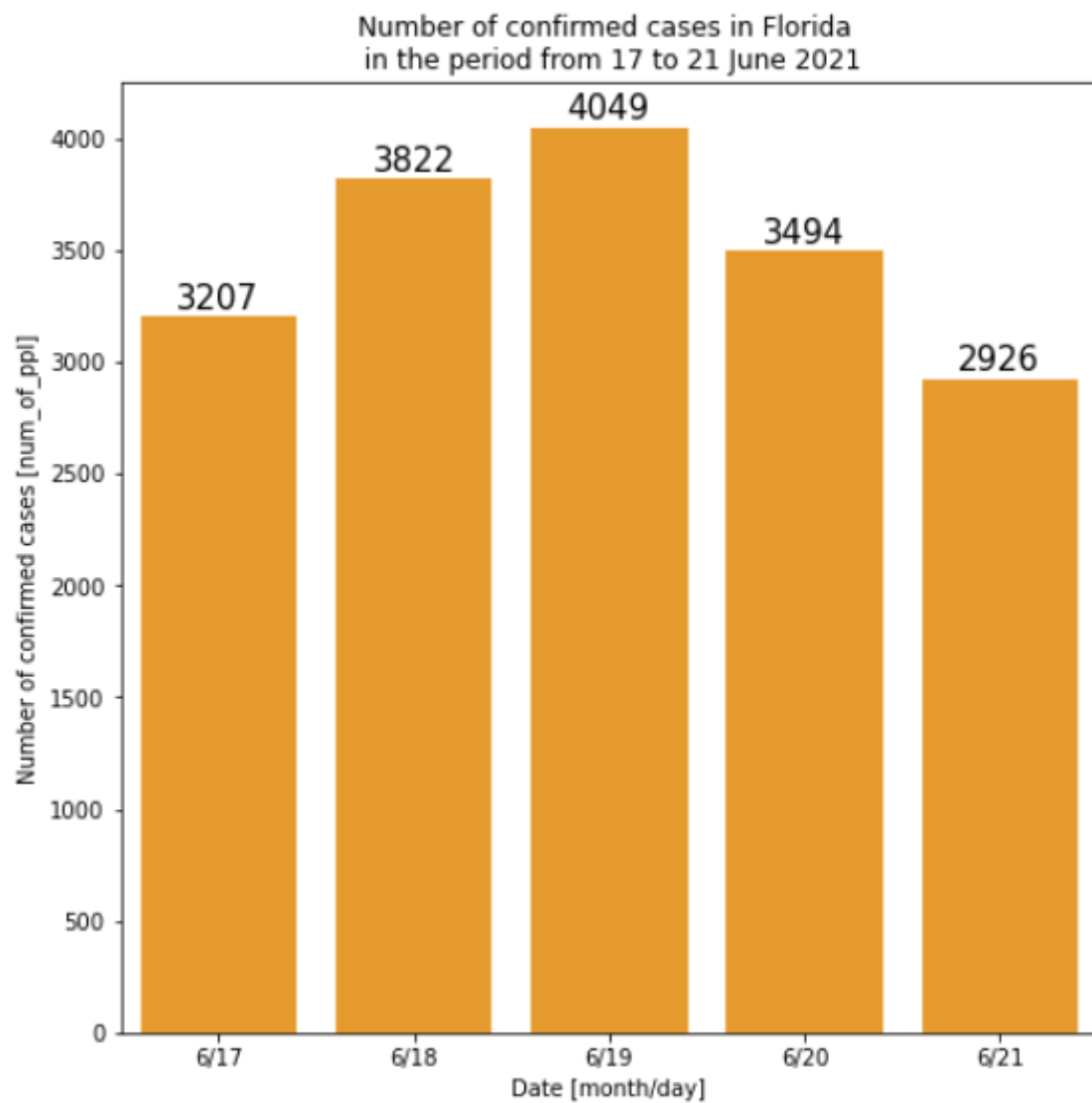
Possible improvements:

- Fixing the length of chart's bars.
- Marking the units on both axes.
- Depicting correct amount of dimensions.

Sketch



Implementation



Implementation code

```
1 data = {
2     "Dates": ["6/" + str(x) for x in range(17, 22)],
3     "Number of confirmed cases": [3207, 3822, 4049, 3494, 2926],
4 }
5 df = pd.DataFrame(data, columns=["Dates", "Number of confirmed cases"])
6 plt.figure(figsize=(8, 8))
7 plots = sns.barplot(x="Dates", y="Number of confirmed cases", data=df, color="orange")
8 for bar in plots.patches:
9     plots.annotate(
10         format(bar.get_height(), "n"),
11         (bar.get_x() + bar.get_width() / 2, bar.get_height()),
12         ha="center",
13         va="center",
14         size=15,
15         xytext=(0, 8),
16         textcoords="offset points",
17     )
18 plt.xlabel("Date [month/day]")
19 plt.ylabel("Number of confirmed cases [num_of ppl]")
20 plt.title("Number of confirmed cases in Florida \n in the period from 17 to 21 June 2021")
21 plt.show()
```