Screen time analysis

Data analysis of users screen time activities. We will analyzing on which application and how much time and the users have passed most of their time.

Data source: https://www.kaggle.com/code/eswarelangovan/screen-time-analysis-using-python

Importing libraries.

```
import pandas as pd
import numpy as np
import plotly.express as px
import plotly.graph_objects as go
```

Importing dataset

```
data = pd.read_csv("./Screentime_ App_Details.csv")
data.head()
```

	Date	Usage	Notifications	Times opened	App
0	08/26/2022	38	70	49	Instagram
1	08/27/2022	39	43	48	Instagram
2	08/28/2022	64	231	55	Instagram
3	08/29/2022	14	35	23	Instagram
4	08/30/2022	3	19	5	Instagram

Data cleaning

```
data.isnull().sum()
```

```
Date             0
Usage            0
Notifications    0
Times opened     0
App              0
dtype: int64
```

```
data.isna().sum()
```

```
Date             0
Usage            0
Notifications    0
Times opened     0
App              0
dtype: int64
```

Our dataset seems fine, there's no irregulatities so far.

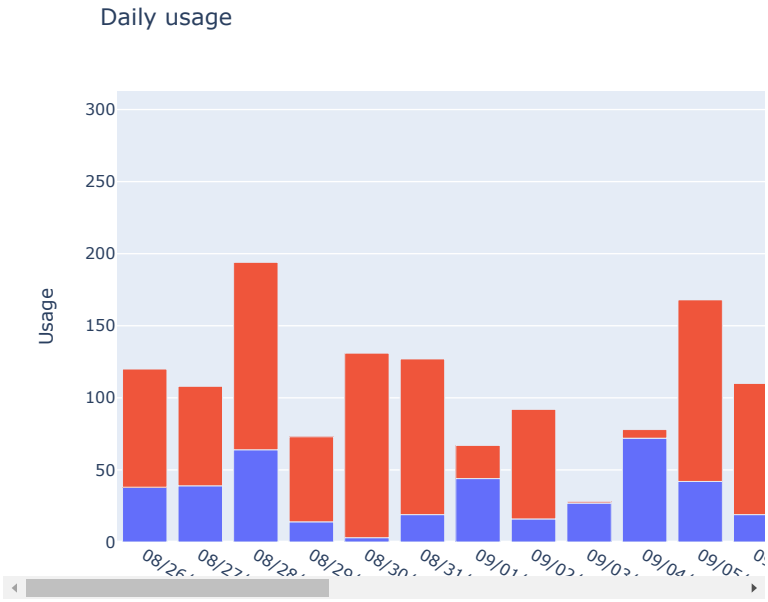
No transformation is needed in the dataset.

Data analysis and visualizations.

Let's see the daily usage of each app

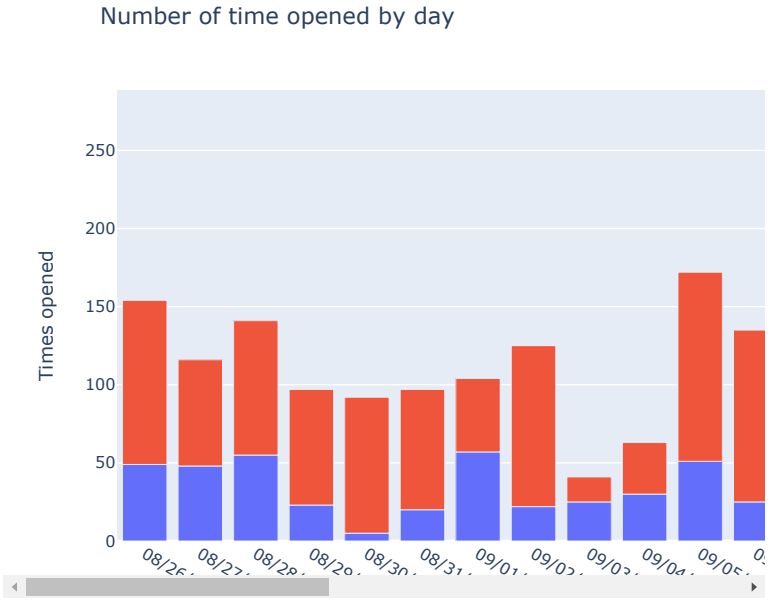
```
usage = px.bar(
    data_frame= data,
    x = "Date",
    y = "Usage",
    color = "App",
    title = "Daily usage"
```

```
)
usage.show()
```



Now the number of times the have been opened each day

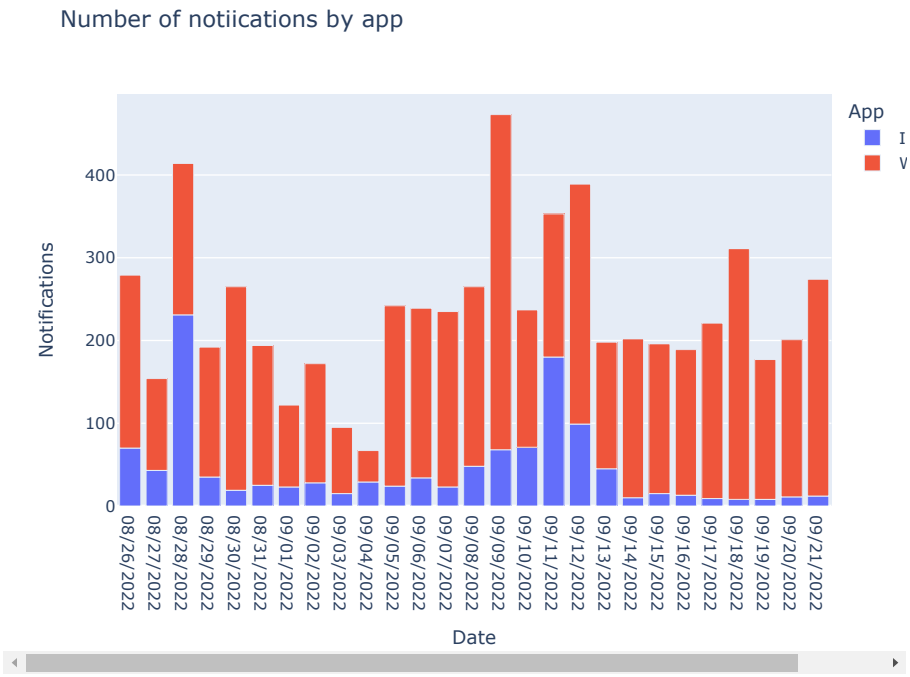
```
opening = px.bar(
    data_frame= data,
    x = "Date",
    y = "Times opened",
    color = "App",
    title = "Number of time opened by day"
)
opening.show()
```



Number of daily notifiactions by application.

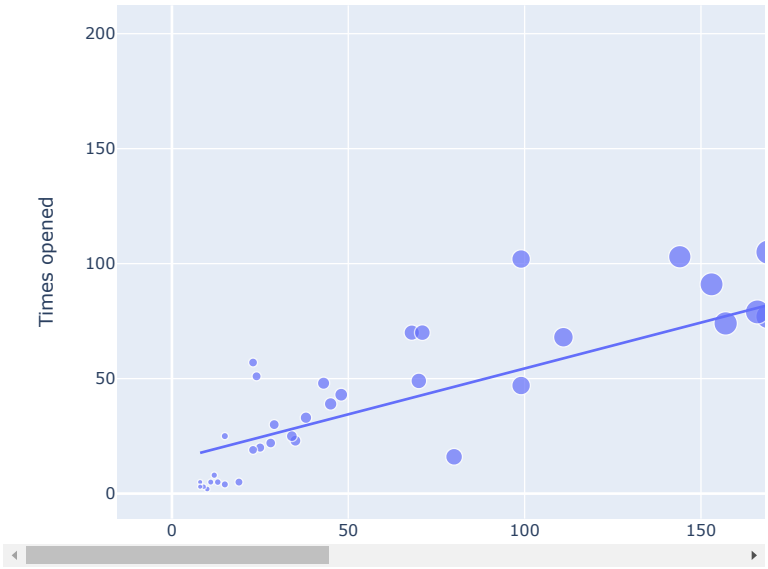
```
notif = px.bar(
```

```
    data_frame= data,
    x = "Date",
    y = "Notifications",
    color = "App",
    title = "Number of notiications by app"
)
notif.show()
```



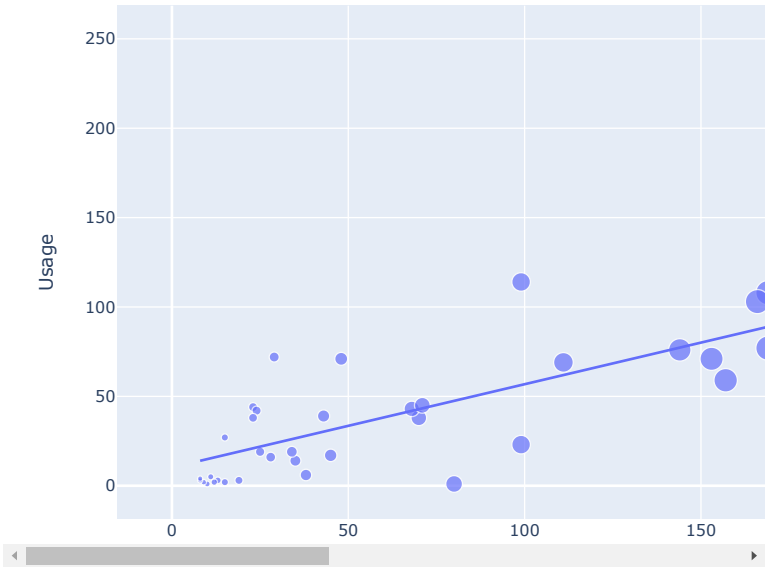
Let's look for the correlation between the number of notifications and the number of time the apps have been opened.

```
figure = px.scatter(data_frame = data,
                    x="Notifications",
                    y="Times opened",
                    size="Notifications",
                    trendline="ols",
)
figure.show()
```



What about the number of notifications and the number of daily usage.

```
figure2 = px.scatter(data_frame = data,
                     x="Notifications",
                     y="Usage",
                     size="Notifications",
                     trendline="ols",
)
figure2.show()
```



It shows us that the more notifications result in a more use of devices and in a more opening of applications.

And so, the notifications make people more active on their devices screen and increase their screen time activities.