

▼ Data Visualization

▼ Step-1

```
import seaborn as sns
import matplotlib.pyplot as plt
```

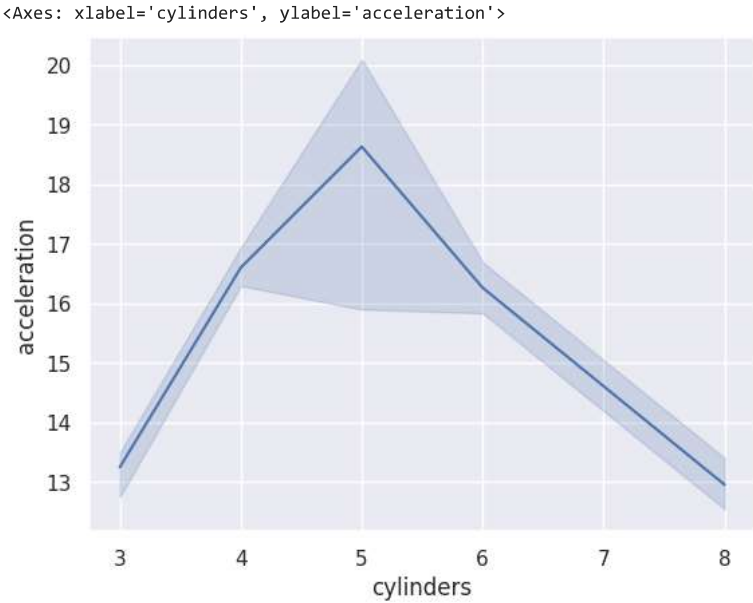
▼ Step-2 Load Dataset

```
mpg = sns.load_dataset("mpg")
mpg.head()
```

	mpg	cylinders	displacement	horsepower	weight	acceleration	model_year	origin	name
0	18.0	8	307.0	130.0	3504	12.0	70	usa	chevrolet chevelle malibu
1	15.0	8	350.0	165.0	3693	11.5	70	usa	buick skylark 320
2	18.0	8	318.0	150.0	3436	11.0	70	usa	plymouth satellite
3	16.0	8	304.0	150.0	3433	12.0	70	usa	amc rebel sst
4	17.0	8	302.0	140.0	3449	10.5	70	usa	ford torino

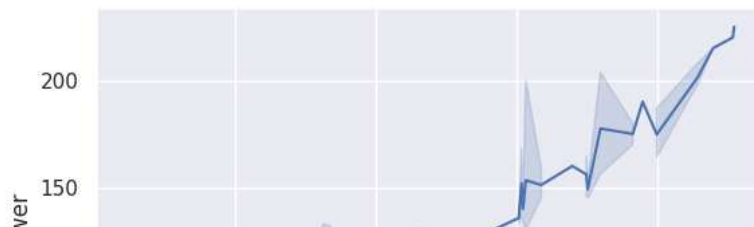
▼ Step-3 Plot a graph

```
sns.lineplot(x="cylinders",y="acceleration", data=mpg)
```



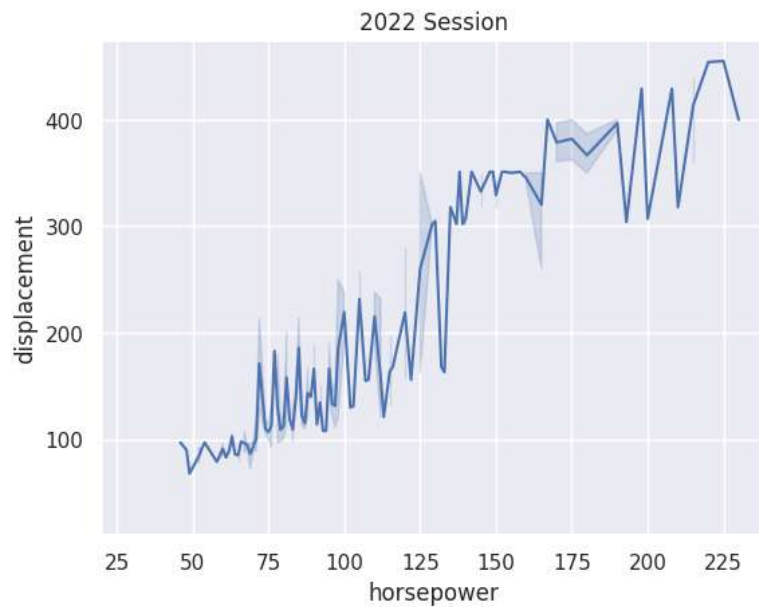
```
sns.lineplot(x="displacement",y="horsepower", data=mpg)
plt.xlim(2)
plt.ylim(3)
```

(3.0, 233.8)



```
sns.lineplot(x="horsepower",y="displacement", data=mpg)
plt.xlim(20)
plt.ylim(10)
plt.title("2022 Session")
```

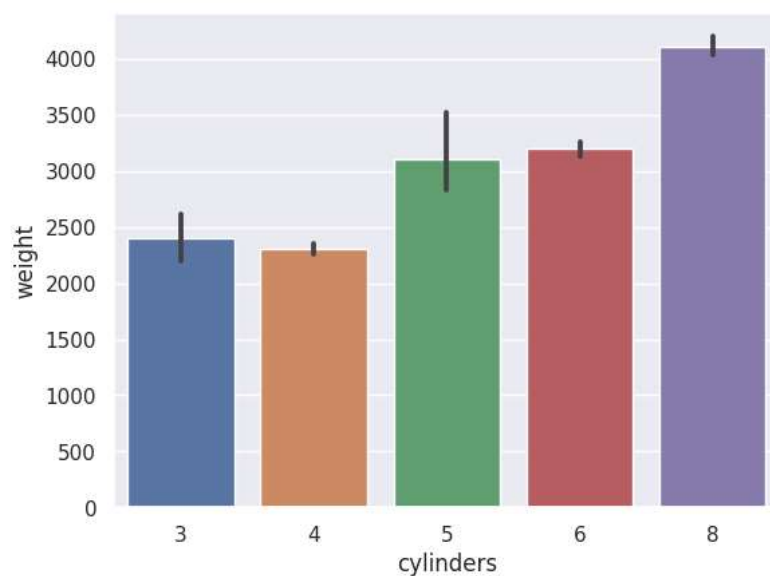
```
Text(0.5, 1.0, '2022 Session')
```



Bar Code

```
sns.barplot(x="cylinders",y="weight", data=mpg)
```

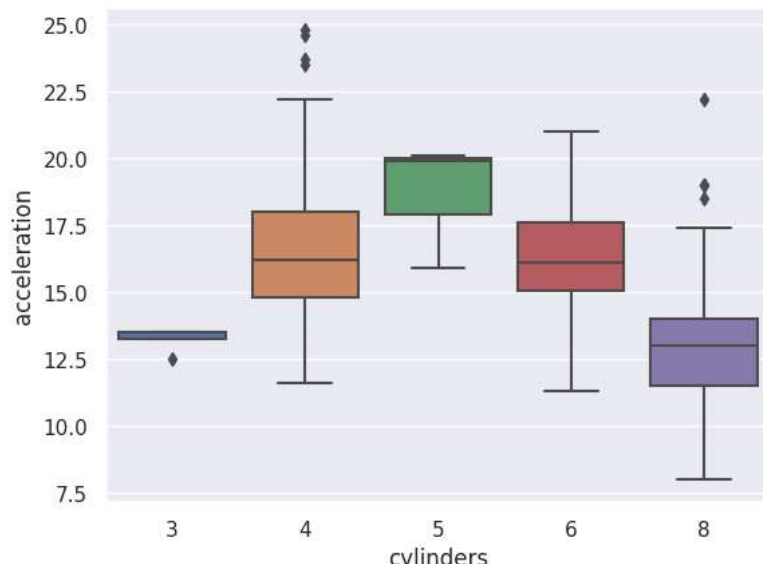
```
<Axes: xlabel='cylinders', ylabel='weight'>
```



Box Plot

```
sns.boxplot(x="cylinders",y="acceleration", data=mpg)
```

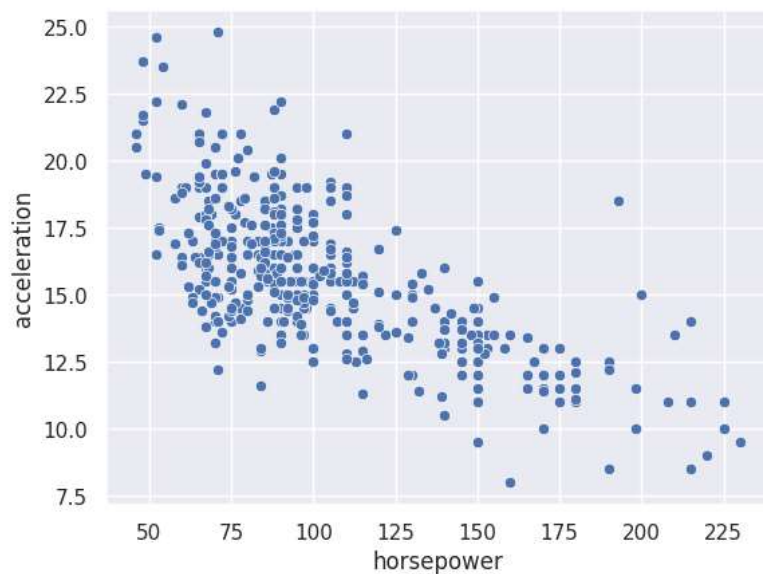
```
<Axes: xlabel='cylinders', ylabel='acceleration'>
```



▼ Scatter Plot

```
sns.scatterplot(x="horsepower",y="acceleration", data=mpg)
```

```
<Axes: xlabel='horsepower', ylabel='acceleration'>
```



▼ Catplot

```
sns.catplot(x="model_year",y="cylinders", data=mpg,color="blue")
```

<seaborn.axisgrid.FacetGrid at 0x7f1448a8f280>



```
import seaborn as sns
sns.set_theme(style="tricks")
```

```
# Load the example dataset for Anscombe's quartet
df = sns.load_dataset("mpg")
```

```
# Show the results of a linear regression within each dataset
sns.lmplot(
```

```
    data=df, x="cylinders", y="acceleration", col="dataset", hue="dataset",
    col_wrap=2, palette="muted", ci=None,
    height=4, scatter_kws={"s": 50, "alpha": 1}
)
```

```
ValueError                                Traceback (most recent call last)
<ipython-input-54-50d121794431> in <cell line: 2>()
      1 import seaborn as sns
----> 2 sns.set_theme(style="model_year")
      3
      4 # Load the example dataset for Anscombe's quartet
      5 df = sns.load_dataset("mpg")
```

```
----- 2 frames -----
/usr/local/lib/python3.10/dist-packages/seaborn/rcmod.py in axes_style(style, rc)
    183     styles = ["white", "dark", "whitegrid", "darkgrid", "ticks"]
    184     if style not in styles:
--> 185         raise ValueError(f"style must be one of {', '.join(styles)}")
    186
    187     # Define colors here
```

ValueError: style must be one of white, dark, whitegrid, darkgrid, ticks

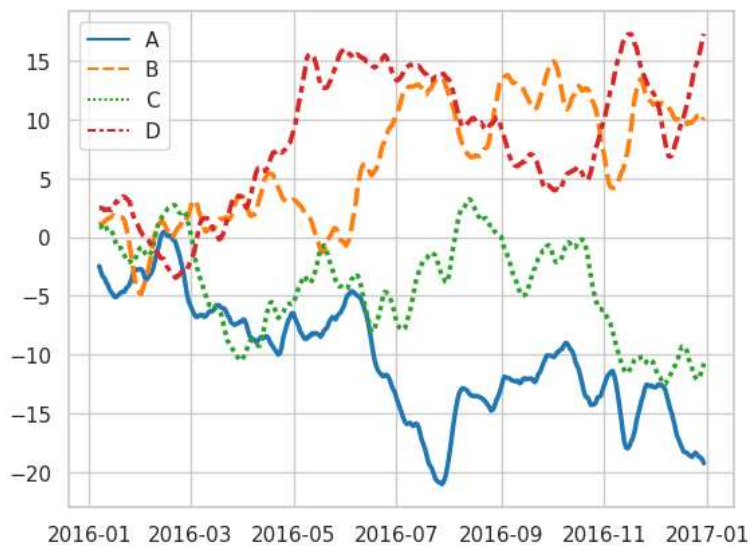
SEARCH STACK OVERFLOW

```
import numpy as np
import pandas as pd
import seaborn as sns
sns.set_theme(style="whitegrid")
```

```
rs = np.random.RandomState(365)
values = rs.randn(365, 4).cumsum(axis=0)
dates = pd.date_range("1 1 2016", periods=365, freq="D")
data = pd.DataFrame(values, dates, columns=["A", "B", "C", "D"])
data = data.rolling(7).mean()
```

```
sns.lineplot(data=data, palette="tab10", linewidth=2.5)
```

<Axes: >

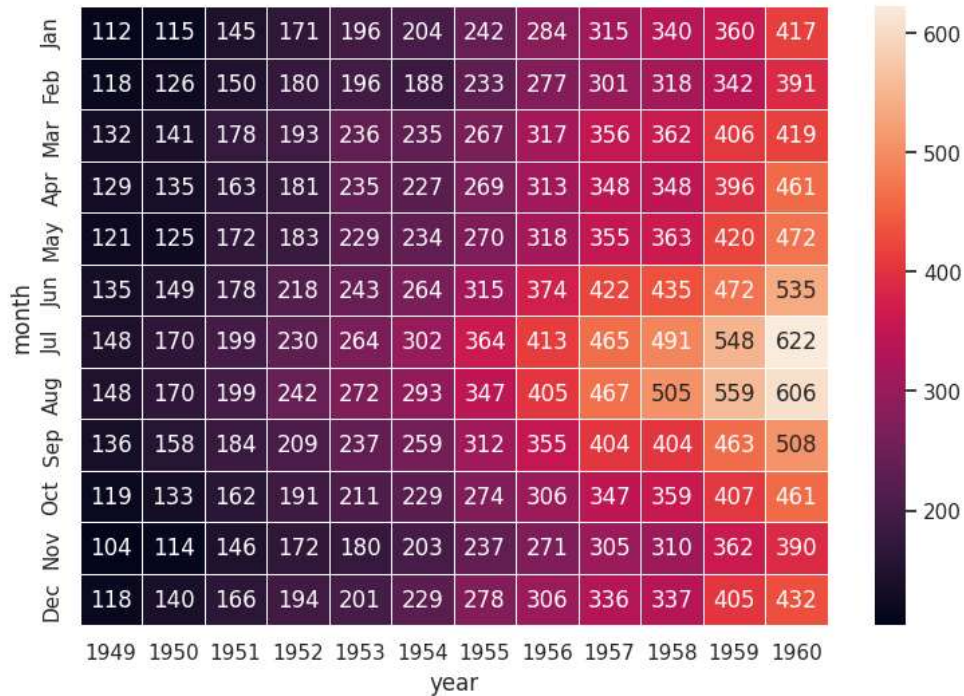


```
import matplotlib.pyplot as plt
import seaborn as sns
sns.set_theme()
```

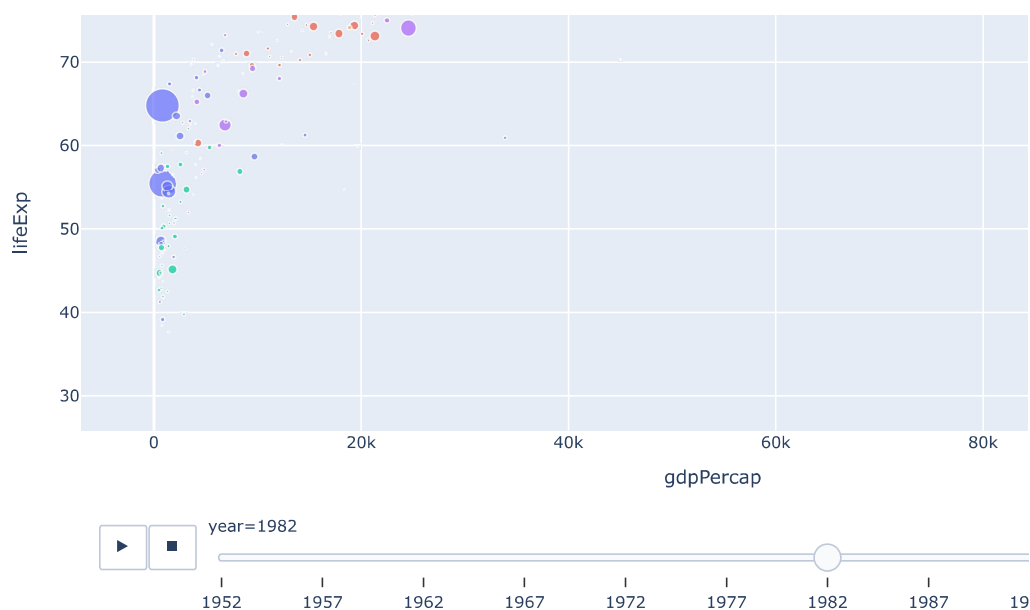
```
# Load the example flights dataset and convert to long-form
flights_long = sns.load_dataset("flights")
flights = flights_long.pivot("month", "year", "passengers")
```

```
# Draw a heatmap with the numeric values in each cell
f, ax = plt.subplots(figsize=(9, 6))
sns.heatmap(flights, annot=True, fmt="d", linewidths=.5, ax=ax)
```

```
<ipython-input-24-fd553bdfde69>:7: FutureWarning: In a future version of pandas all arguments of DataFr
  flights = flights_long.pivot("month", "year", "passengers")
<Axes: xlabel='year', ylabel='month'>
```



```
import plotly.express as px
gapminder = px.data.gapminder()
fig = px.scatter(gapminder, x="gdpPercap", y="lifeExp", animation_frame="year", animation_group="country",
  size="pop", color="continent", hover_name="country")
fig.show()
```





0s completed at 11:47 PM

