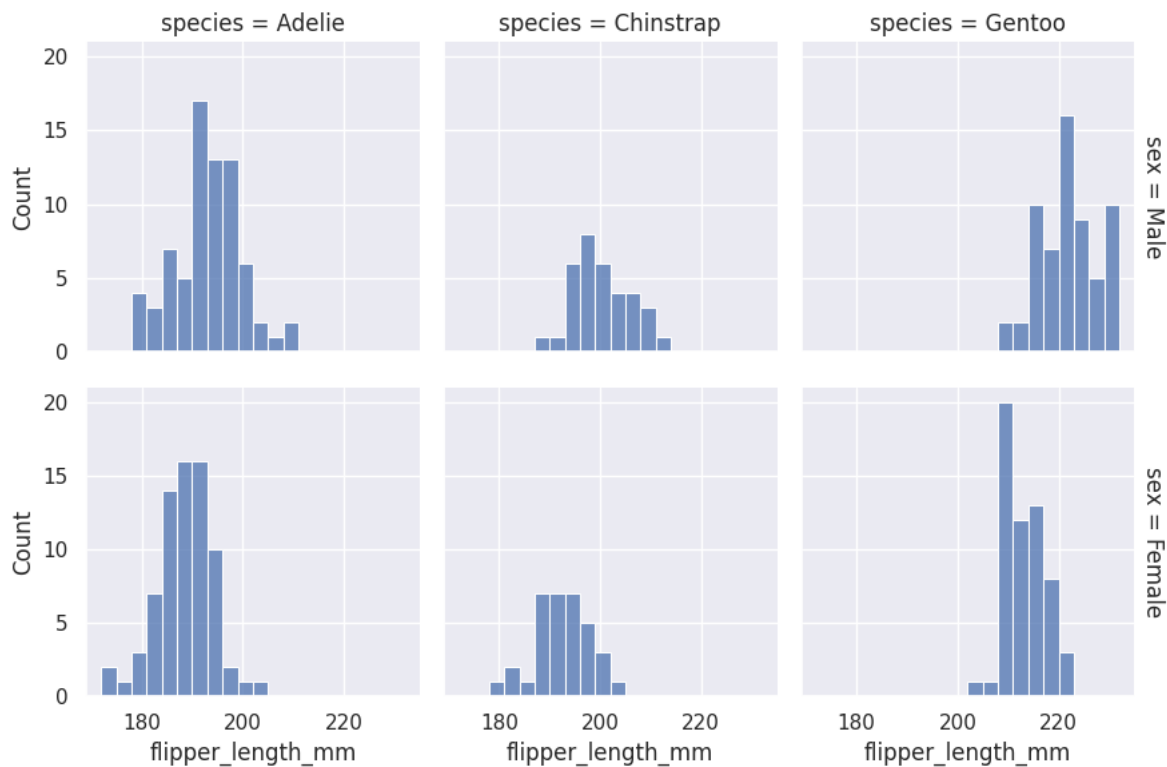HISTOGRAM

```
import seaborn as sns

sns.set_theme(style="darkgrid")
df = sns.load_dataset("penguins")
sns.displot(
    df, x="flipper_length_mm", col="species", row="sex",
    binwidth=3, height=3, facet_kws=dict(margin_titles=True),
)
```

<seaborn.axisgrid.FacetGrid at 0x7e34c2a7b970>

BAR CHART

```
import seaborn as sns
import matplotlib.pyplot as plt
sns.set_theme(style="whitegrid")

# Initialize the matplotlib figure
f, ax = plt.subplots(figsize=(6, 15))

# Load the example car crash dataset
crashes = sns.load_dataset("car_crashes").sort_values("total", ascending=False)

# Plot the total crashes
sns.set_color_codes("pastel")
sns.barplot(x="total", y="abbrev", data=crashes,
            label="Total", color="b")

# Plot the crashes where alcohol was involved
sns.set_color_codes("muted")
sns.barplot(x="alcohol", y="abbrev", data=crashes,
            label="Alcohol-involved", color="b")

# Add a legend and informative axis label
ax.legend(ncol=2, loc="lower right", frameon=True)
ax.set(xlim=(0, 24), ylabel="",
       xlabel="Automobile collisions per billion miles")
sns.despine(left=True, bottom=True)
```
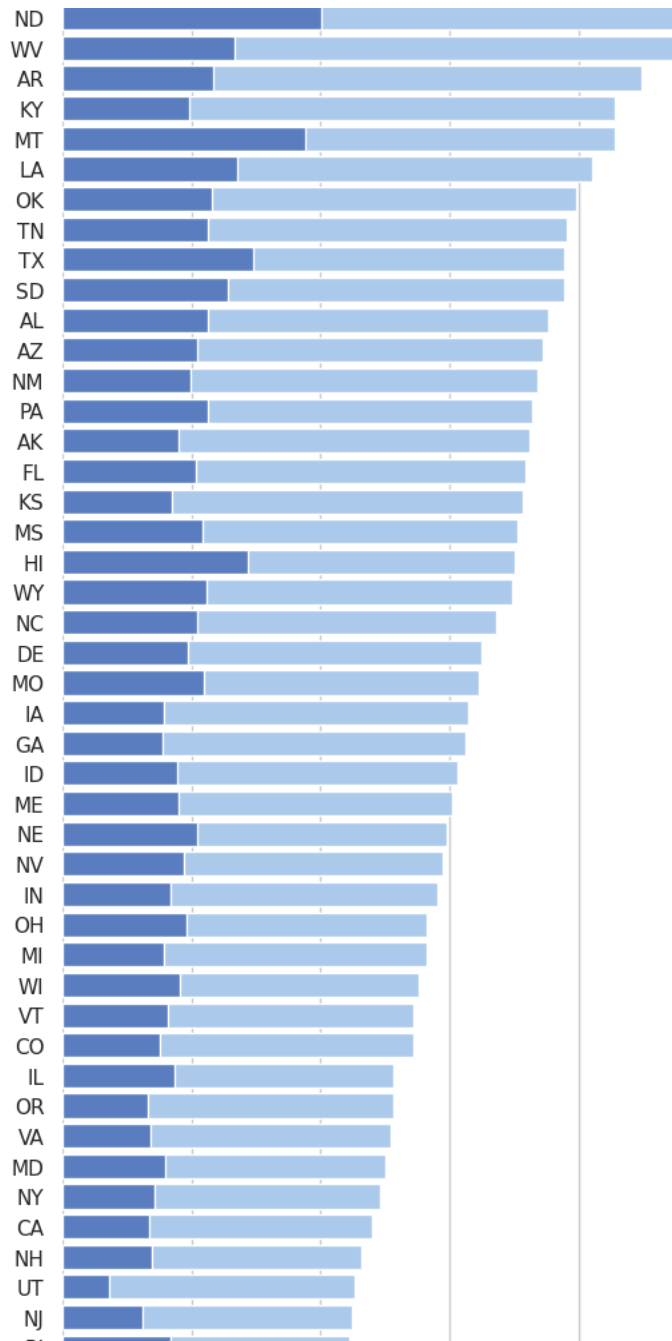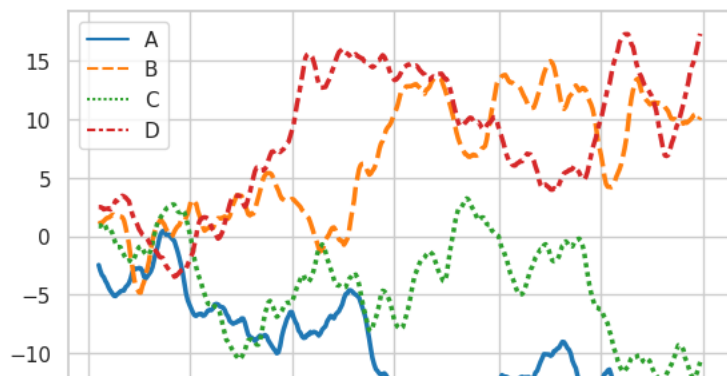
LINE PLOT

```
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: >
```


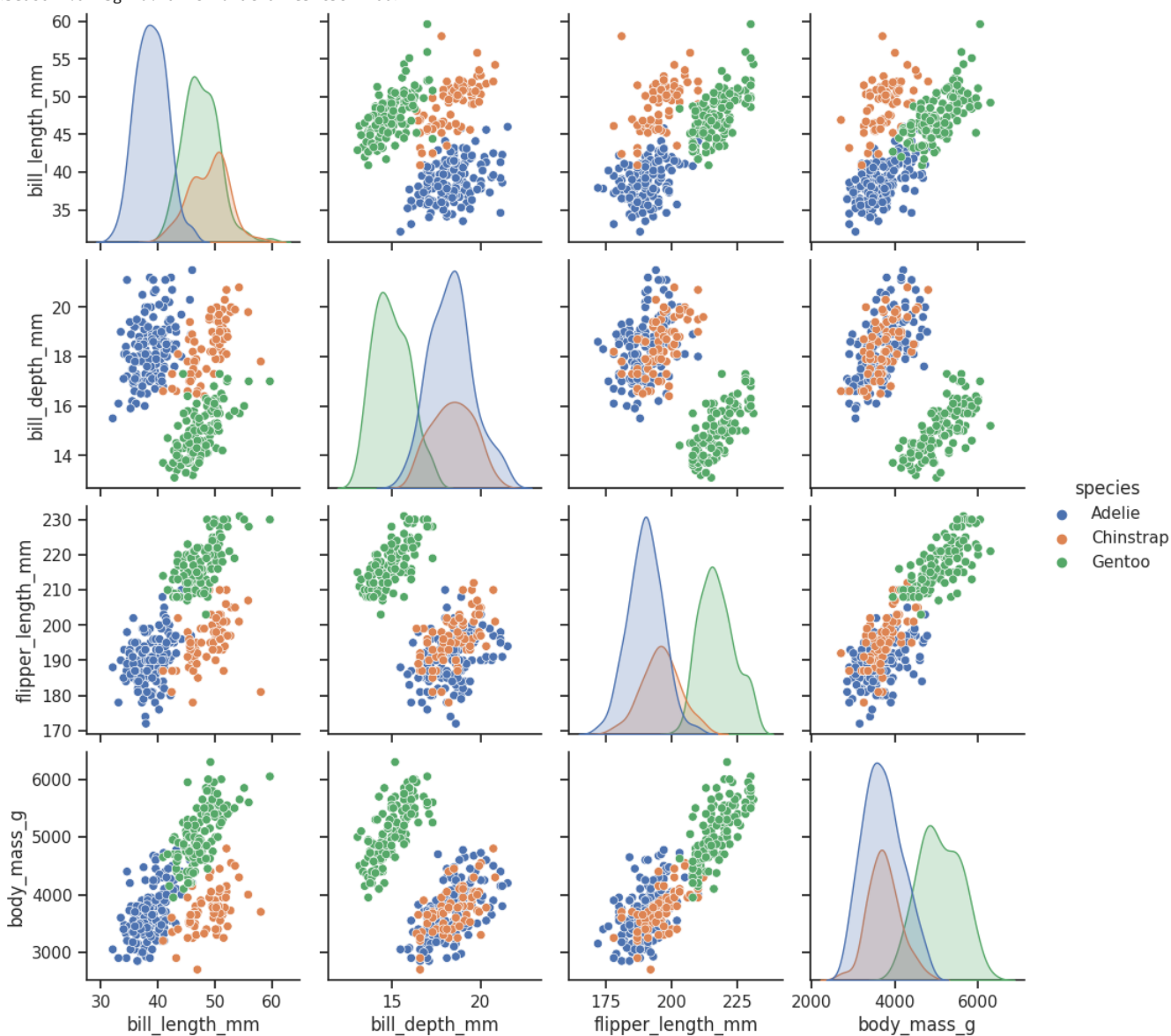SCATTER PLOT

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

df = sns.load_dataset("penguins")
sns.pairplot(df, hue="species")
```

```
<seaborn.axisgrid.PairGrid at 0x7e34c3894100>
```


BOX PLOT

```
import seaborn as sns
sns.set_theme(style="ticks", palette="pastel")

# Load the example tips dataset
```
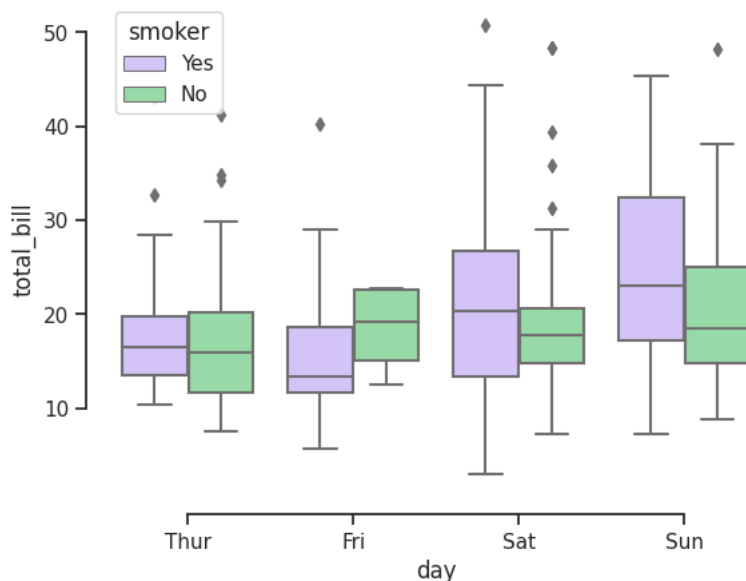
```python
tips = sns.load_dataset("tips")

# Draw a nested boxplot to show bills by day and time
sns.boxplot(x="day", y="total_bill",
            hue="smoker", palette=["m", "g"],
            data=tips)
sns.despine(offset=10, trim=True)
```


HEATMAPS

```python
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(index="month", columns="year", values="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)
```
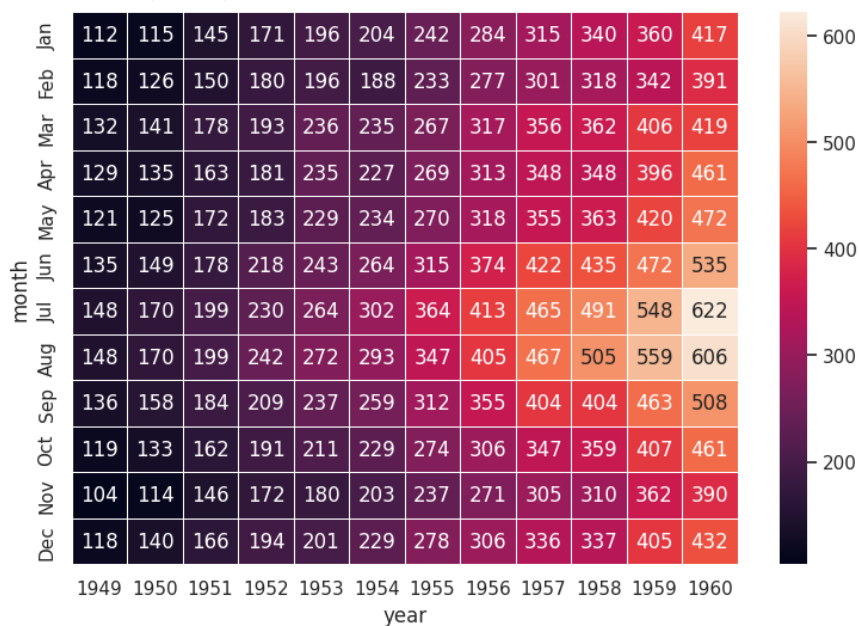
```
<Axes: xlabel='year', ylabel='month'>
```

VIOLIN PLOTS

```python
import seaborn as sns
import matplotlib.pyplot as plt
sns.set_theme(style="whitegrid")

# Load the example dataset of brain network correlations
df = sns.load_dataset("brain_networks", header=[0, 1, 2], index_col=0)

# Pull out a specific subset of networks
used_networks = [1, 3, 4, 5, 6, 7, 8, 11, 12, 13, 16, 17]
used_columns = (df.columns.get_level_values("network")
                            .astype(int)
                            .isin(used_networks))
df = df.loc[:, used_columns]

# Compute the correlation matrix and average over networks
corr_df = df.corr().groupby(level="network").mean()
corr_df.index = corr_df.index.astype(int)
corr_df = corr_df.sort_index().T

# Set up the matplotlib figure
f, ax = plt.subplots(figsize=(11, 6))

# Draw a violinplot with a narrower bandwidth than the default
sns.violinplot(data=corr_df, bw_adjust=.5, cut=1, linewidth=1, palette="Set3")

# Finalize the figure
ax.set(ylim=(-.7, 1.05))
sns.despine(left=True, bottom=True)
```