Palmer Penguins (.ipynb)

Inhaltsverzeichnis

```
import pandas as pd
import altair as alt
import seaborn as sns
from matplotlib import pyplot as plt
```

Data from Palmer Penguins R package

```
penguins = pd.read_csv("https://pos.it/palmer-penguins-github-csv")
```

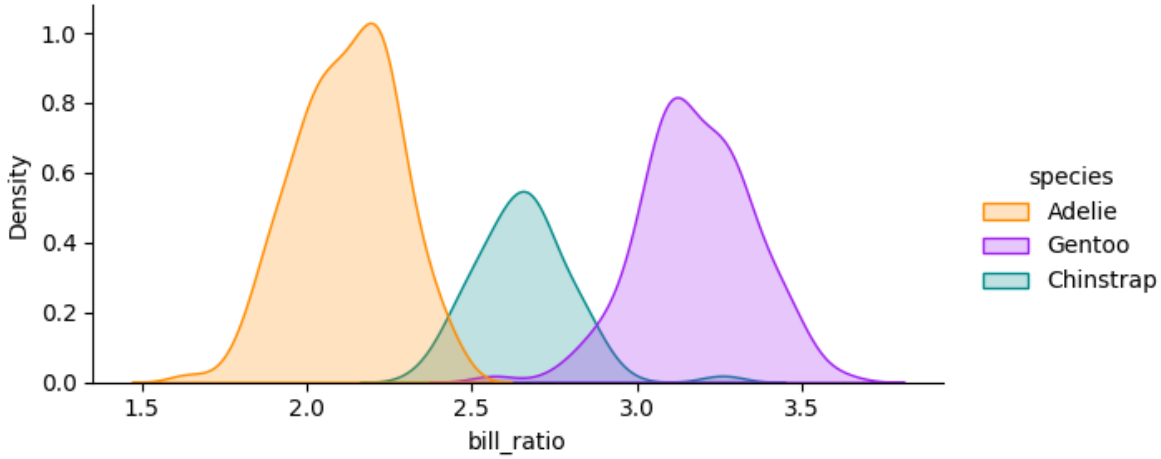
```
penguins.groupby("species").size().reset_index(name = "count")
```

	species	count
0	Adelie	152
1	Chinstrap	68
2	Gentoo	124

```
colors = ["#FF8C00", "#A020F0", "#008B8B"]
sns.set_palette(colors, n_colors = 3)
```

```
penguins["bill_ratio"] = (
   penguins["bill_length_mm"] / penguins["bill_depth_mm"]
)
sns.displot(penguins,
            x = "bill_ratio",
```

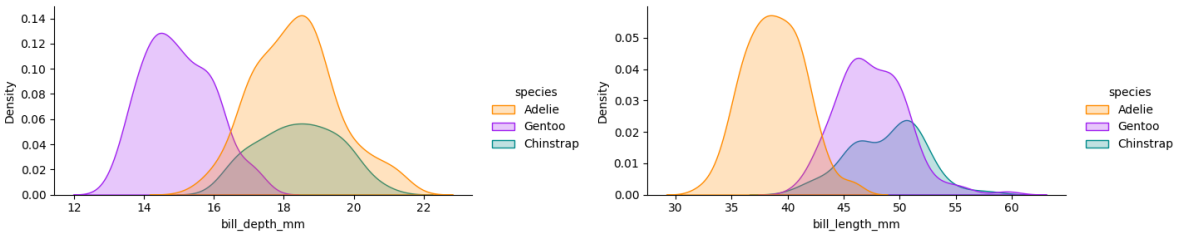
```
            hue = "species",
            kind = "kde", fill = True, aspect = 2, height = 3)
plt.show()
```




```
sns.displot(penguins,
            x = "bill_depth_mm",
            hue = "species",
            kind = "kde", fill = True,
            aspect = 2, height = 3)
plt.show()
sns.displot(penguins,
            x = "bill_length_mm",
            hue = "species",
            kind = "kde", fill = True,
            aspect = 2, height = 3)
plt.show()
```

```
scale = alt.Scale(domain = ['Adelie', 'Chinstrap', 'Gentoo'],
                  range = colors)
```

```
alt.Chart(penguins).mark_circle(size=60).encode(
    alt.X('bill_length_mm',
        scale=alt.Scale(zero=False)
    ),
    alt.Y('bill_depth_mm',
```



(a) Gentoo penguins tend to have thinner bills, (b) and Adelie penguins tend to have shorter bills.

Abbildung 1: Marginal distributions of bill dimensions

```
        scale=alt.Scale(zero=False)
    ),
    color = alt.Color('species', scale = scale),
    tooltip=['species', 'sex', 'island']
)
```

```
alt.Chart(...)
```

Abbildung 2: A scatterplot of bill dimensions for penguins, made with Altair.