line plot with multifacets

In [1]:

```
import seaborn as sns
import numpy as np
import matplotlib.pyplot as plt
import pandas as pd
nuqta=sns.load_dataset("dots")
nuqta.head()
```

Out[1]:

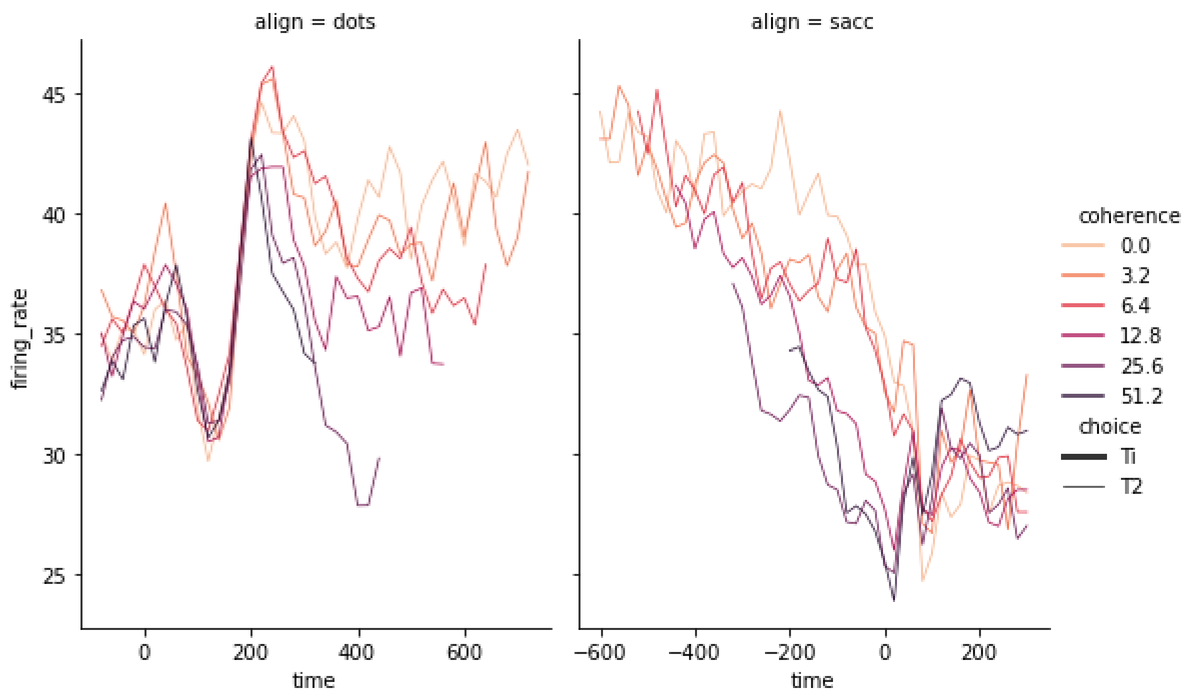
	align	choice	time	coherence	firing_rate
0	dots	T1	-80	0.0	33.189967
1	dots	T1	-80	3.2	31.691726
2	dots	T1	-80	6.4	34.279840
3	dots	T1	-80	12.8	32.631874
4	dots	T1	-80	25.6	35.060487

In [5]:

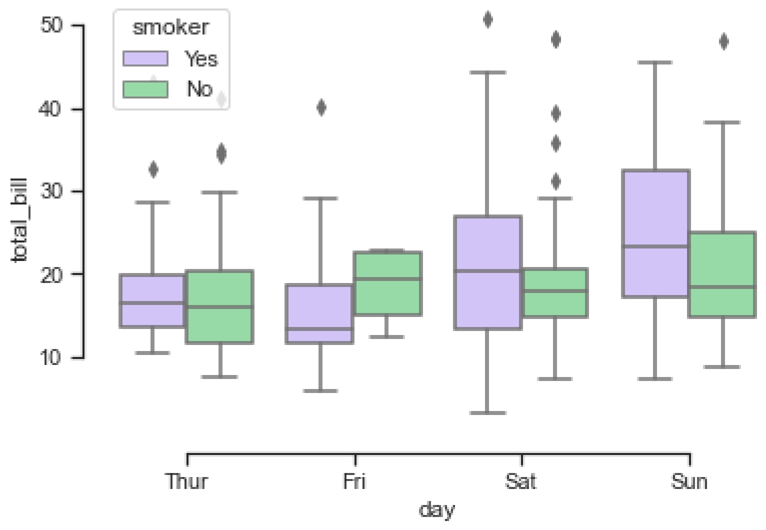
```
import seaborn as sns
import numpy as np
import matplotlib.pyplot as plt
import pandas as pd
nuqta=sns.load_dataset("dots")
nuqta.head()

#defining a color palette
palette=sns.color_palette("rocket_r")

# plot lineplot
sns.relplot(data=nuqta,
           x="time",y="firing_rate",
            hue="coherence",size="choice",col="align",
           kind="line",size_order=["Ti","T2"],palette=palette,
           height=5, aspect=.75, facet_kws=dict(sharex=False),
           )
```

Out[5]:

```
<seaborn.axisgrid.FacetGrid at 0x29c708e5e50>
```

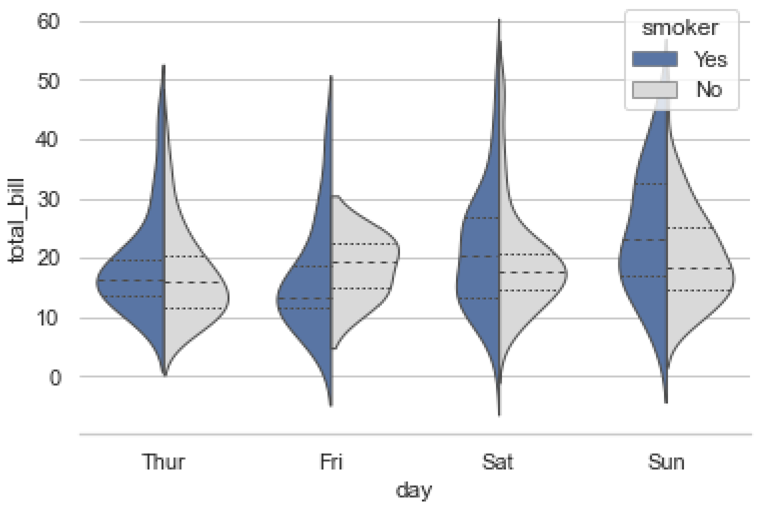


In [6]:
```
import seaborn as sns
sns.set_theme(style="ticks", palette="pastel")

# Load the example tips dataset
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)
```



In [7]:
```
import seaborn as sns
sns.set_theme(style="whitegrid")

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

```
# Draw a nested violinplot and split the violins for easier comparison
sns.violinplot(data=tips, x="day", y="total_bill", hue="smoker",
               split=True, inner="quart", linewidth=1,
               palette={"Yes": "b", "No": ".85"})
sns.despine(left=True)
```

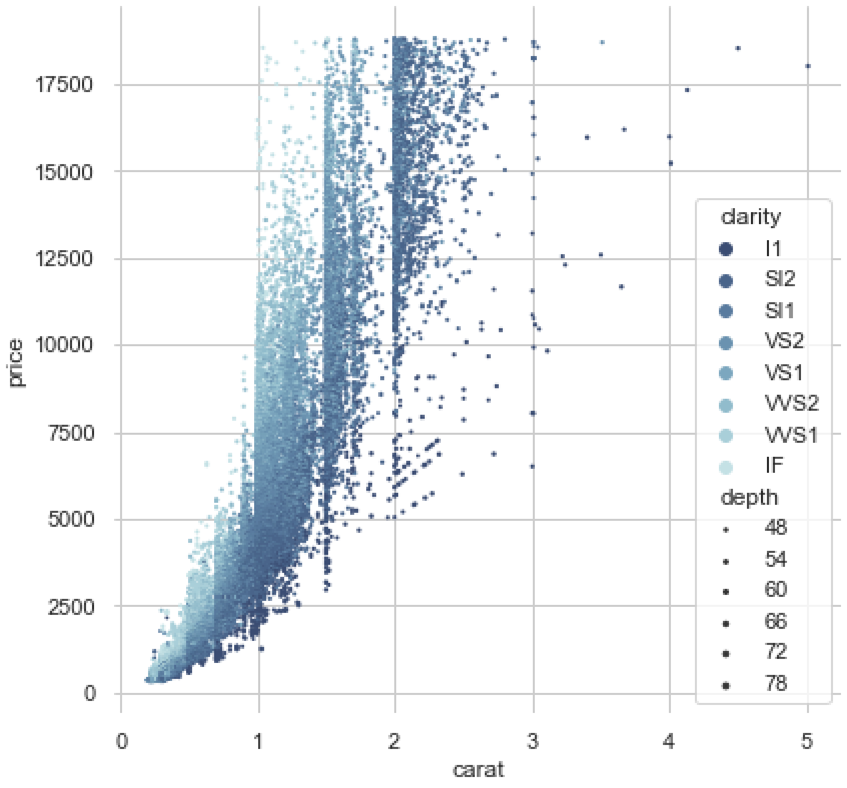


In [8]:

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

# Load the example diamonds dataset
diamonds = sns.load_dataset("diamonds")

# Draw a scatter plot while assigning point colors and sizes to different
# variables in the dataset
f, ax = plt.subplots(figsize=(6.5, 6.5))
sns.despine(f, left=True, bottom=True)
clarity_ranking = ["I1", "SI2", "SI1", "VS2", "VS1", "VVS2", "VVS1", "IF"]
sns.scatterplot(x="carat", y="price",
                hue="clarity", size="depth",
                palette="ch:r=-.2,d=.3_r",
                hue_order=clarity_ranking,
                sizes=(1, 8), linewidth=0,
                data=diamonds, ax=ax)
```

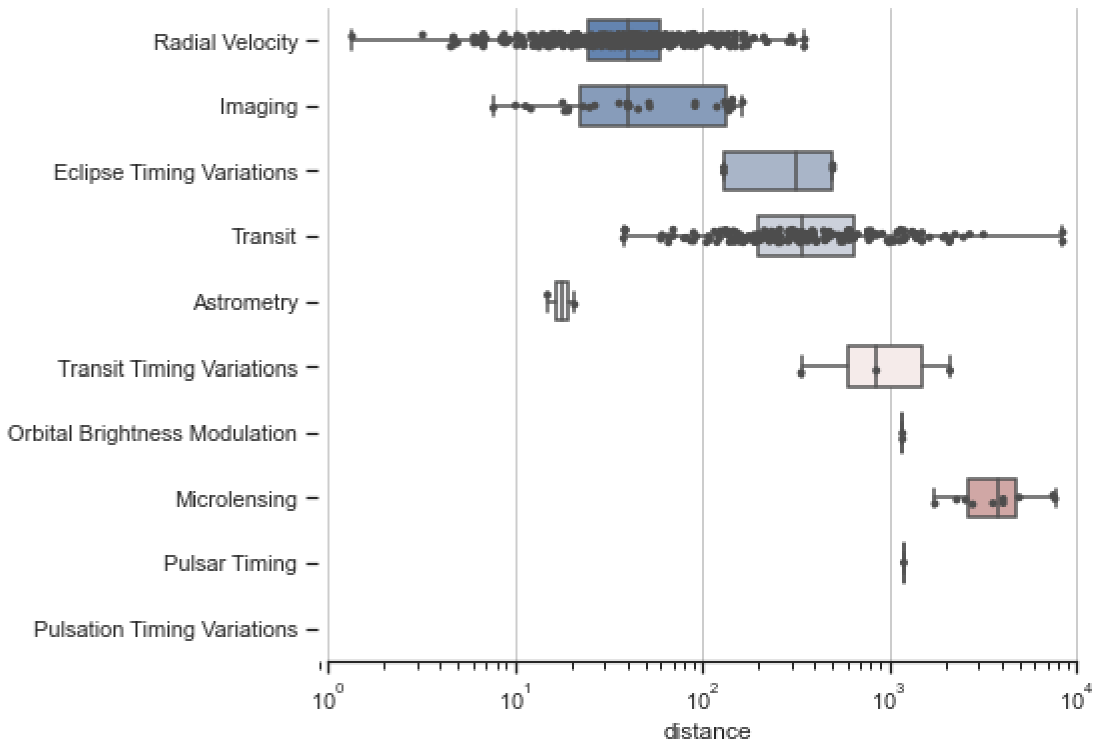
Out[8]:

```
<AxesSubplot:xlabel='carat', ylabel='price'>
```



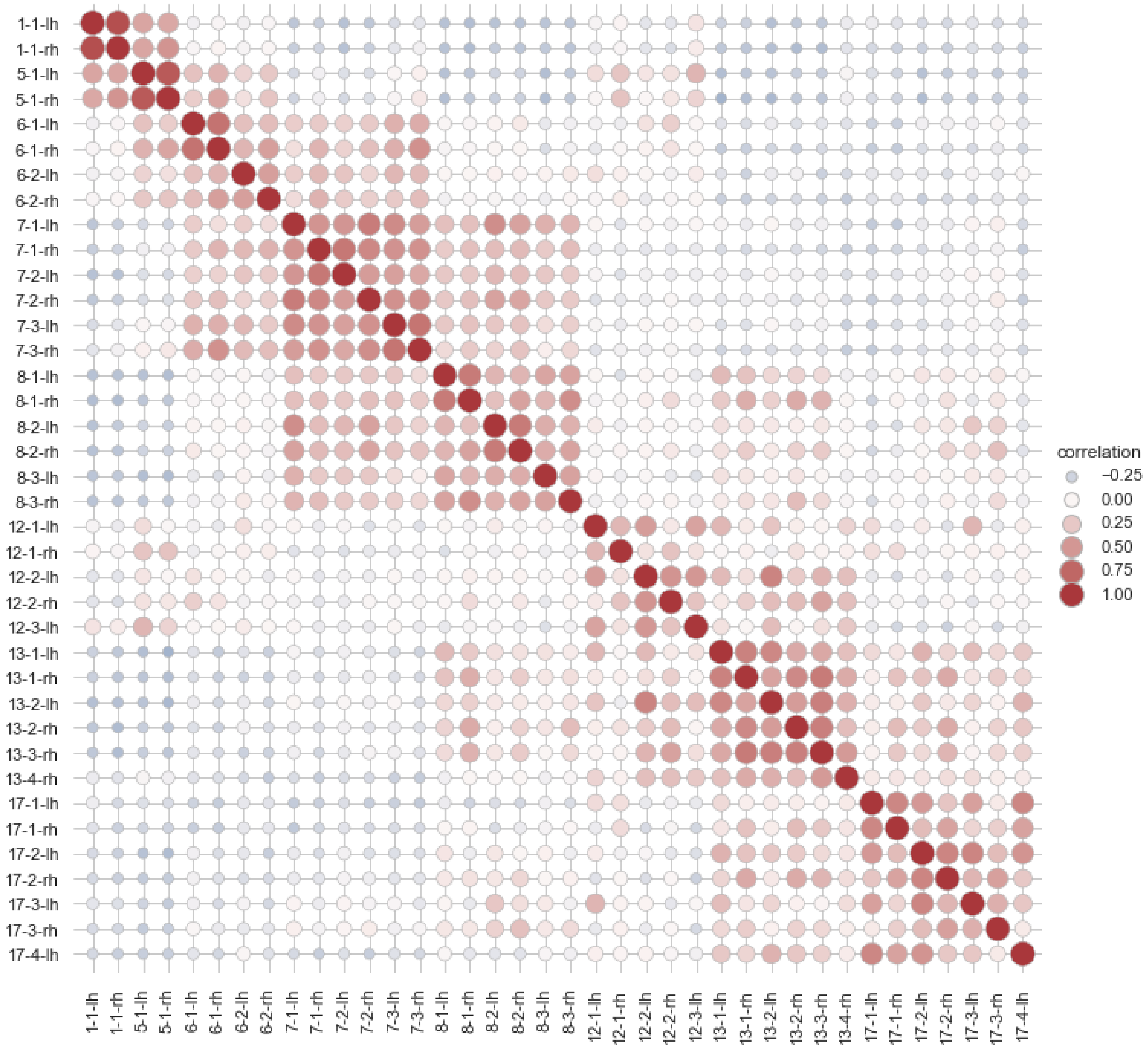
In [11]:

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

sns.set_theme(style="ticks")

# Initialize the figure with a logarithmic x axis
f, ax = plt.subplots(figsize=(7, 6))
ax.set_xscale("log")

# Load the example planets dataset
planets = sns.load_dataset("planets")

# Plot the orbital period with horizontal boxes
sns.boxplot(x="distance", y="method", data=planets,
            whis=[0, 100], width=.6, palette="vlag")

# Add in points to show each observation
sns.stripplot(x="distance", y="method", data=planets,
              size=4, color=".3", linewidth=0)

# Tweak the visual presentation
ax.xaxis.grid(True)
ax.set(ylabel="")
sns.despine(trim=True, left=True)
```



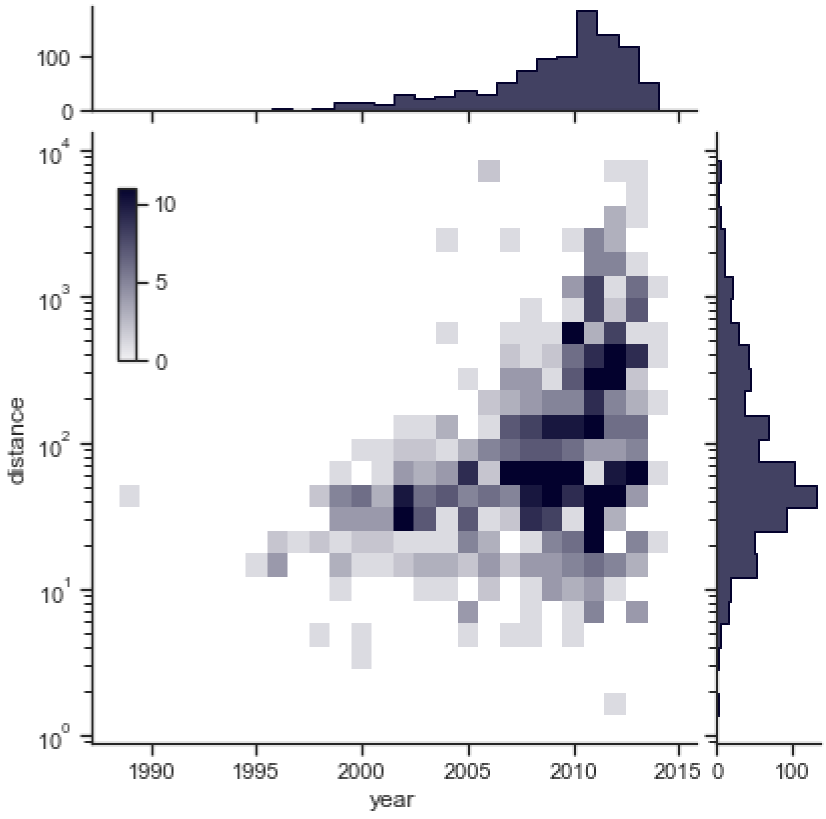
In [12]:

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

# Load the brain networks dataset, select subset, and collapse the multi-index
df = sns.load_dataset("brain_networks", header=[0, 1, 2], index_col=0)

used_networks = [1, 5, 6, 7, 8, 12, 13, 17]
used_columns = (df.columns
                  .get_level_values("network")
                  .astype(int)
                  .isin(used_networks))
df = df.loc[:, used_columns]

df.columns = df.columns.map("-".join)

# Compute a correlation matrix and convert to long-form
corr_mat = df.corr().stack().reset_index(name="correlation")

# Draw each cell as a scatter point with varying size and color
g = sns.relplot(
    data=corr_mat,
    x="level_0", y="level_1", hue="correlation", size="correlation",
    palette="vlag", hue_norm=(-1, 1), edgecolor=".7",
    height=10, sizes=(50, 250), size_norm=(-.2, .8),
)

# Tweak the figure to finalize
g.set(xlabel="", ylabel="", aspect="equal")
g.despine(left=True, bottom=True)
g.ax.margins(.02)
for label in g.ax.get_xticklabels():
    label.set_rotation(90)
for artist in g.legend.legendHandles:
    artist.set_edgecolor(".7")
```



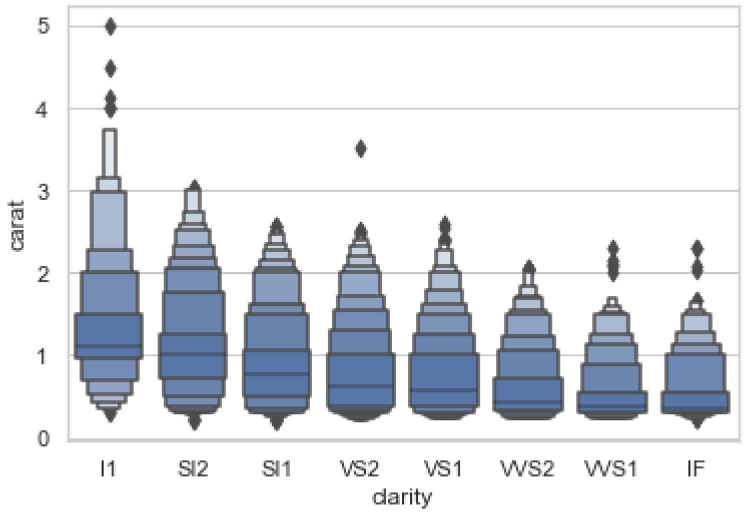
In [13]:
```python
import seaborn as sns
sns.set_theme(style="ticks")

# Load the planets dataset and initialize the figure
planets = sns.load_dataset("planets")
g = sns.JointGrid(data=planets, x="year", y="distance", marginal_ticks=True)

# Set a log scaling on the y axis
g.ax_joint.set(yscale="log")

# Create an inset legend for the histogram colorbar
cax = g.figure.add_axes([.15, .55, .02, .2])

# Add the joint and marginal histogram plots
g.plot_joint(
    sns.histplot, discrete=(True, False),
    cmap="light:#03012d", pmax=.8, cbar=True, cbar_ax=cax
)
g.plot_marginals(sns.histplot, element="step", color="#03012d")
```

Out[13]:
```
<seaborn.axisgrid.JointGrid at 0x29c730d7f40>
```



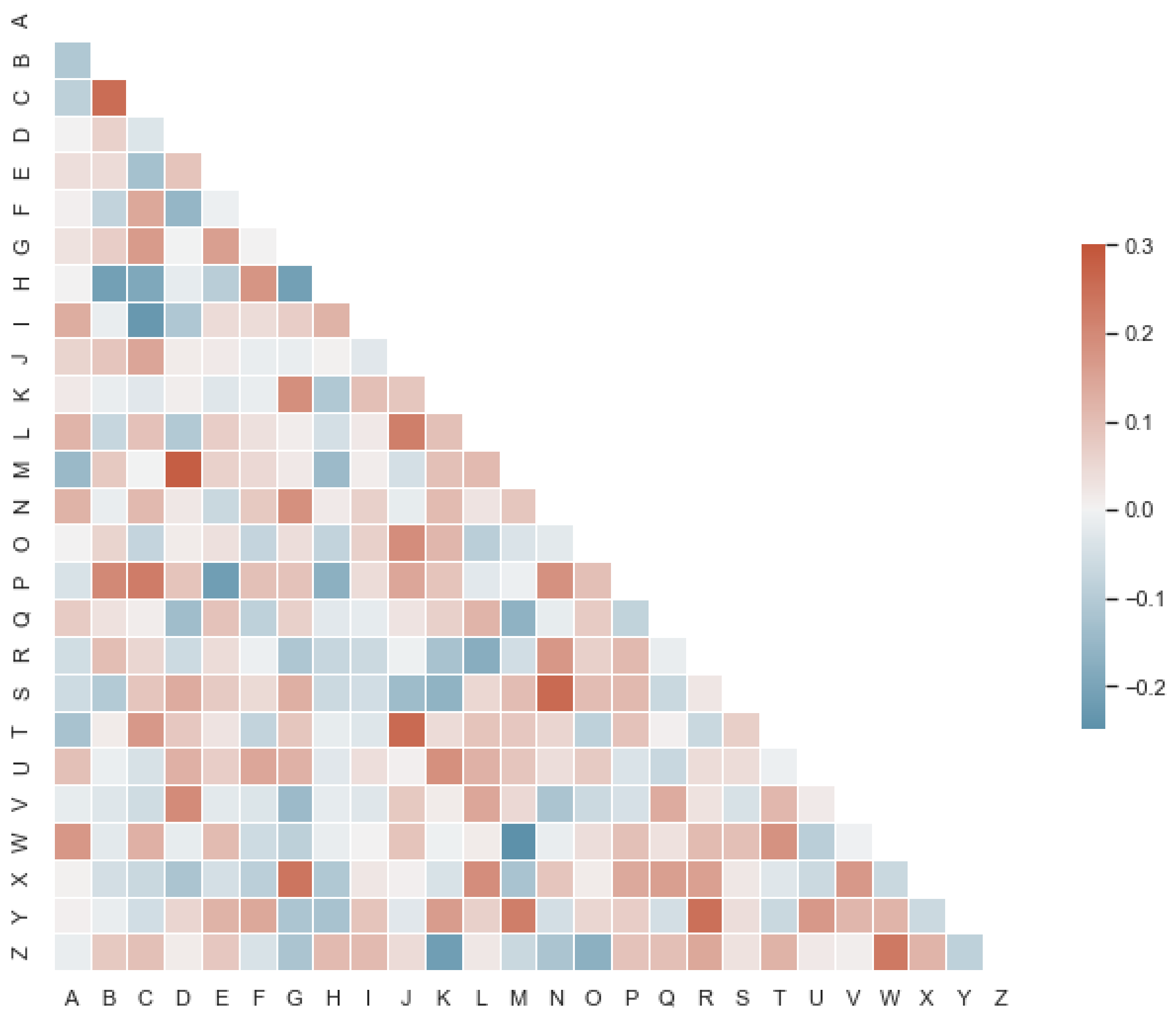
In [14]:
```
import seaborn as sns
sns.set_theme(style="whitegrid")

diamonds = sns.load_dataset("diamonds")
clarity_ranking = ["I1", "SI2", "SI1", "VS2", "VS1", "VVS2", "VVS1", "IF"]

sns.boxenplot(x="clarity", y="carat",
              color="b", order=clarity_ranking,
              scale="linear", data=diamonds)
```

Out[14]:
```
<AxesSubplot:xlabel='clarity', ylabel='carat'>
```



In [17]:
```
from string import ascii_letters
import numpy as np
import pandas as pd
import seaborn as sns
import matplotlib.pyplot as plt

sns.set_theme(style="white")

# Generate a large random dataset
rs = np.random.RandomState(33)
d = pd.DataFrame(data=rs.normal(size=(100, 26)),
                 columns=list(ascii_letters[26:]))

# Compute the correlation matrix
corr = d.corr()

# Generate a mask for the upper triangle
mask = np.triu(np.ones_like(corr, dtype=bool))

# Set up the matplotlib figure
f, ax = plt.subplots(figsize=(11, 9))

# Generate a custom diverging colormap
cmap = sns.diverging_palette(230, 20, as_cmap=True)

# Draw the heatmap with the mask and correct aspect ratio
sns.heatmap(corr, mask=mask, cmap=cmap, vmax=.3, center=0,
            square=True, linewidths=.5, cbar_kws={"shrink": .5})
```

```
Out[17]: <AxesSubplot:>
```



```
In [ ]:
```