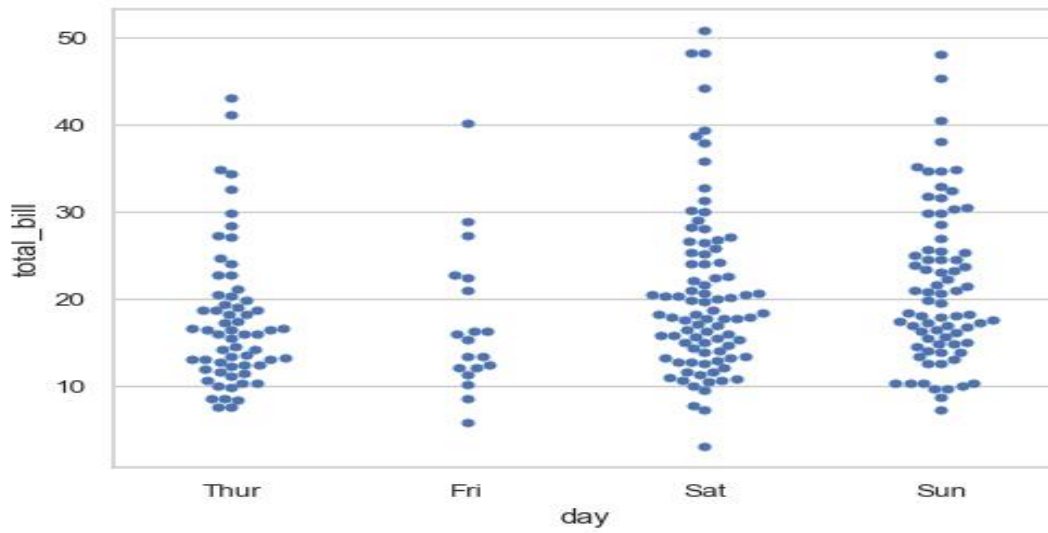


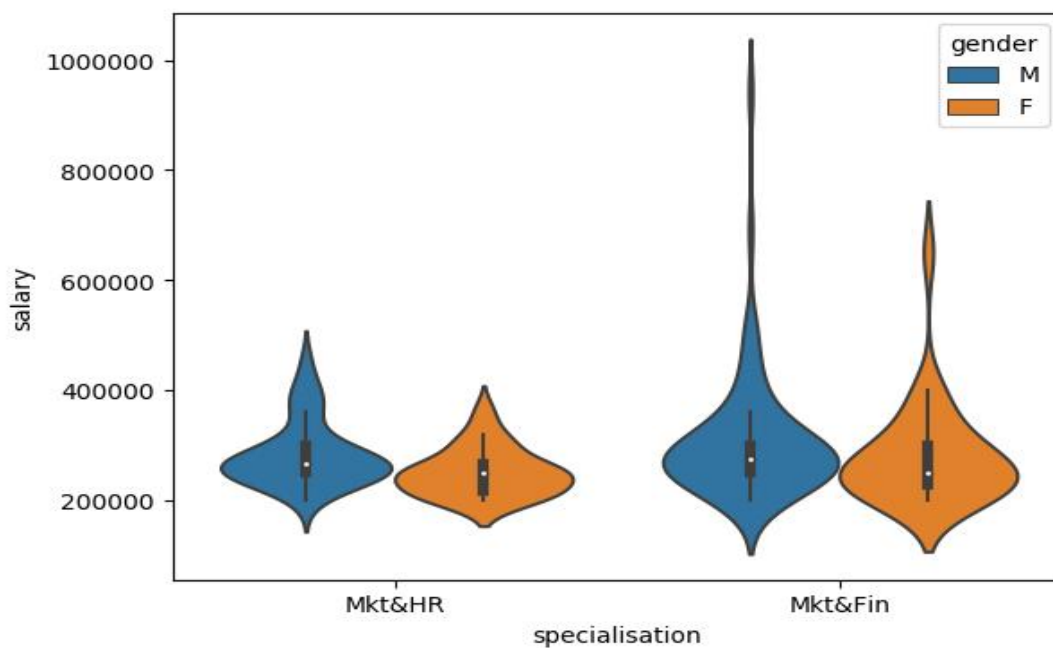
Graph Plots explanation

1) SwarmPlot:

- A Seaborn swarmplot is a type of categorical scatterplot that displays the distribution of data points for different categories without overlapping.
- It is particularly useful for visualizing the distribution of a continuous variable across various categories, especially when the number of data points is not excessively large.



2) ViolinPlot:



• Mkt&HR:

Salary distributions are relatively similar for males and females.

The spread of salaries is moderate, with most salaries concentrated around the 2L–3L range.

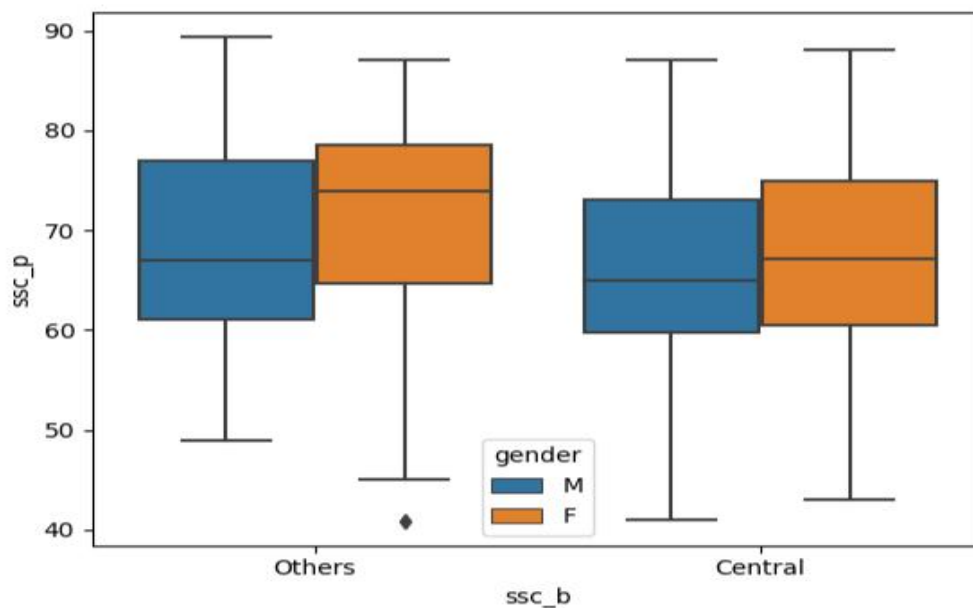
• **Mkt&Fin:**

The salary distribution for males has a much wider spread, indicating some individuals earn significantly more (up to over 1,000,000).

Female salaries in Mkt&Fin are more concentrated below 700,000.

The wider shape of the violin for males in Mkt&Fin suggests more variability in salaries and presence of high outliers.

3) BoxPlot:



"Others" board:

Both males and females have a similar median `ssc_p`, though females show a slightly higher median.

The distribution for females is slightly tighter (less spread).

There is an outlier in the female category with a low `ssc_p` (~45).

"Central" board:

The median `ssc_p` for males and females is almost the same.

The interquartile range (IQR) is slightly tighter for females compared to males, indicating less variability.

Outliers are rare, indicating fairly uniform performance across groups.

4) PointPlot:

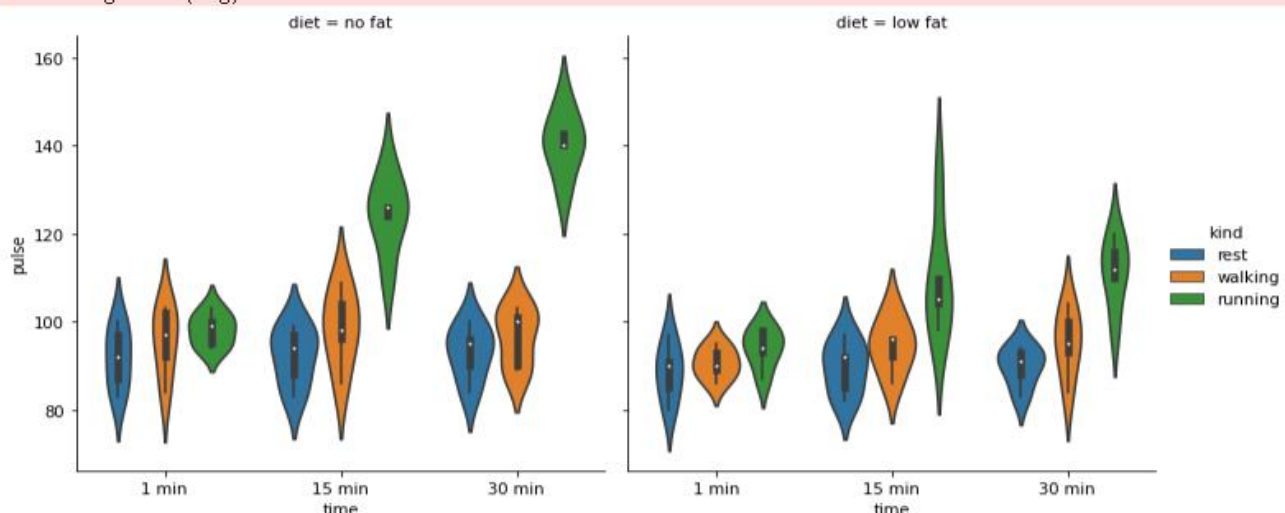
A Seaborn pointplot displays point estimates and confidence intervals for a numeric variable across different levels of one or more categorical variables. It is a powerful tool for comparing categories and visualizing interactions between variables.

Point plots can be more effective than bar plots when the focus is on comparing a statistical estimate, like the mean, rather than the raw counts or values. The lines connecting the points make it easy to spot interactions and differences in slopes.

5) FactorPlot:

```
import pandas as pd
import seaborn as sb
from matplotlib import pyplot as plt
df = sb.load_dataset('exercise')
sb.factorplot(x = "time", y = "pulse", hue = "kind", kind = 'violin', col = "diet", data = df);
plt.show()
```

C:\Anaconda3\envs\tf\lib\site-packages\seaborn\categorical.py:3666: UserWarning: The `factorplot` function has been deprecated. It will be removed in a future release. Please update your code. Note that the default `kind` in `factorplot` (`'point'`) will be changed to `kind='strip'` in the future. warnings.warn(msg)



Across both diets:

The **pulse rate increases as time progresses** for activities like walking and running.

The **rest condition remains fairly constant** around 90–100 bpm.

The **running condition shows a wider distribution** of pulse rates, especially at 15 and 30 minutes.

Comparing diets:

The overall distribution patterns of pulse rates are quite similar between "no fat" and "low fat" diets.

No strong visible difference in pulse distribution due to diet alone.