What is swarmplot?

It is a type of categorical scatter plot used to visualize the distribution of data points across different categories, it provides a clear view of the density and variation within each category.

Each data point is represented as a dot, with the dots arranged in such a way that they do not overlap with each other. This arrangement helps to avoid the problem of overplotting, which can occur when multiple data points are plotted on top of each other.

How to create swarmplot in seaborn?

Import the seaborn library

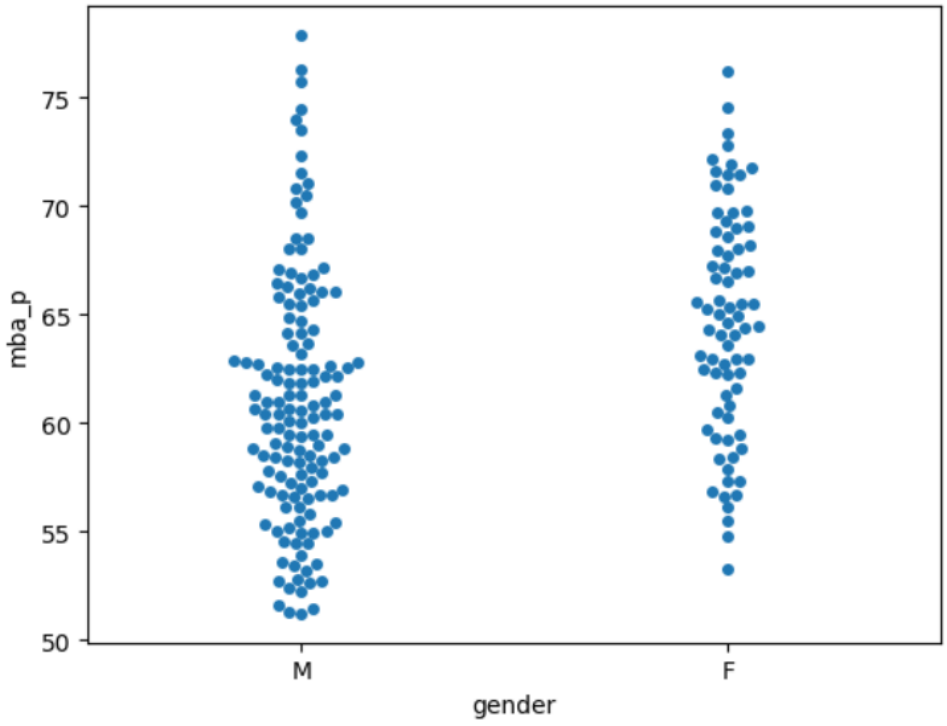
Data → Which data that we are going to use to plot

x→ x axis from the parameter of data

y→ y axis from the parameter of data.

```
[35]: sb.swarmplot(data=dataset,x='gender', y='mba_p')
```

```
[35]: <Axes: xlabel='gender', ylabel='mba_p'>
```



Analysis of Graph

The graph displays the mba pass marks of male and female,

Male → The mba pass mark starts from just above 50 marks, the density of the marks occupied maximum between 55 and 63 marks, and the highest mark of the male is above 75 marks.

Female → High density of the marks between 60 and 70, mark starts from above from male, and highest mark just below the male.

Advantages:

1. Swarmplots are great for visualizing small to medium-sized datasets.
2. They allow you to see the distribution of points within categories.
3. They can reveal patterns in the data that other plots may not show.

Disadvantages:

1. They can become cluttered and difficult to read with larger datasets.
2. The placement of points can be affected by the order in which they are plotted, which can lead to misleading visualizations.
3. They may not be suitable for datasets with multiple variables or complex relationships

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