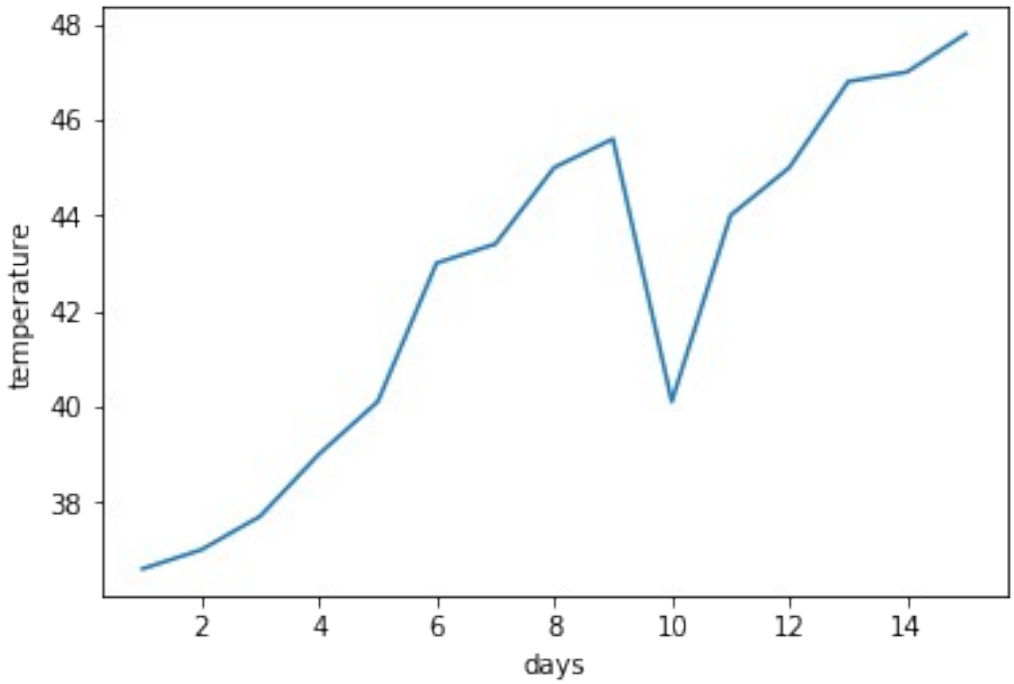
Python Seaborn Tutorial Part - 2 & Part - 3

How to draw Seaborn line plot?

```
#Import libaries
import seaborn as sns # for data visualization
import pandas as pd # for data analysis
import matplotlib.pyplot as plt # for data visualization

# Syntax of seaborn lineplot function
"""
sns.lineplot(
    x=None,
    y=None,
    hue=None,
    size=None,
    style=None,
    data=None,
    palette=None,
    hue_order=None,
    hue_norm=None,
    sizes=None,
    size_order=None,
    size_norm=None,
    dashes=True,
    markers=None,
    style_order=None,
    units=None,
    estimator='mean',
    ci=95,
    n_boot=1000,
    sort=True,
    err_style='band',
    err_kws=None,
    legend='brief',
    ax=None,
    **kwargs,
)

"""
```

```
"\nsns.lineplot(\n    x=None,\n    y=None,\n    hue=None,\n
size=None,\n    style=None,\n    data=None,\n    palette=None,\n
hue_order=None,\n    hue_norm=None,\n    sizes=None,\n
size_order=None,\n    size_norm=None,\n    dashes=True,\n
markers=None,\n    style_order=None,\n    units=None,\n
estimator='mean',\n    ci=95,\n    n_boot=1000,\n    sort=True,\n
err_style='band',\n    err_kws=None,\n    legend='brief',\n
ax=None,\n    **kwargs,\n)\n\n"
```

```
days = [1,2,3,4,5,6,7,8,9,10,11,12,13,14,15]
temperature = [36.6, 37,
37.7,39,40.1,43,43.4,45,45.6,40.1,44,45,46.8,47,47.8]

#create dataframe using two list days and temperature
temp_df = pd.DataFrame({"days":days, "temperature":temperature})

# Draw line plot
sns.lineplot(x = "days", y = "temperature", data=temp_df,)
plt.show()
```




```
#load tips dataset from GitHub
tips_df = sns.load_dataset("tips")
tips_df
```

	total_bill	tip	sex	smoker	day	time	size
0	16.99	1.01	Female	No	Sun	Dinner	2
1	10.34	1.66	Male	No	Sun	Dinner	3
2	21.01	3.50	Male	No	Sun	Dinner	3
3	23.68	3.31	Male	No	Sun	Dinner	2
4	24.59	3.61	Female	No	Sun	Dinner	4
5	25.29	4.71	Male	No	Sun	Dinner	4
6	8.77	2.00	Male	No	Sun	Dinner	2
7	26.88	3.12	Male	No	Sun	Dinner	4
8	15.04	1.96	Male	No	Sun	Dinner	2
9	14.78	3.23	Male	No	Sun	Dinner	2
10	10.27	1.71	Male	No	Sun	Dinner	2
11	35.26	5.00	Female	No	Sun	Dinner	4
12	15.42	1.57	Male	No	Sun	Dinner	2

13	18.43	3.00	Male	No	Sun	Dinner	4
14	14.83	3.02	Female	No	Sun	Dinner	2
15	21.58	3.92	Male	No	Sun	Dinner	2
16	10.33	1.67	Female	No	Sun	Dinner	3
17	16.29	3.71	Male	No	Sun	Dinner	3
18	16.97	3.50	Female	No	Sun	Dinner	3
19	20.65	3.35	Male	No	Sat	Dinner	3
20	17.92	4.08	Male	No	Sat	Dinner	2
21	20.29	2.75	Female	No	Sat	Dinner	2
22	15.77	2.23	Female	No	Sat	Dinner	2
23	39.42	7.58	Male	No	Sat	Dinner	4
24	19.82	3.18	Male	No	Sat	Dinner	2
25	17.81	2.34	Male	No	Sat	Dinner	4
26	13.37	2.00	Male	No	Sat	Dinner	2
27	12.69	2.00	Male	No	Sat	Dinner	2
28	21.70	4.30	Male	No	Sat	Dinner	2
29	19.65	3.00	Female	No	Sat	Dinner	2
..	...	...	...	...	...	...	...
214	28.17	6.50	Female	Yes	Sat	Dinner	3
215	12.90	1.10	Female	Yes	Sat	Dinner	2
216	28.15	3.00	Male	Yes	Sat	Dinner	5
217	11.59	1.50	Male	Yes	Sat	Dinner	2
218	7.74	1.44	Male	Yes	Sat	Dinner	2
219	30.14	3.09	Female	Yes	Sat	Dinner	4
220	12.16	2.20	Male	Yes	Fri	Lunch	2
221	13.42	3.48	Female	Yes	Fri	Lunch	2
222	8.58	1.92	Male	Yes	Fri	Lunch	1
223	15.98	3.00	Female	No	Fri	Lunch	3
224	13.42	1.58	Male	Yes	Fri	Lunch	2
225	16.27	2.50	Female	Yes	Fri	Lunch	2
226	10.09	2.00	Female	Yes	Fri	Lunch	2
227	20.45	3.00	Male	No	Sat	Dinner	4
228	13.28	2.72	Male	No	Sat	Dinner	2
229	22.12	2.88	Female	Yes	Sat	Dinner	2
230	24.01	2.00	Male	Yes	Sat	Dinner	4
231	15.69	3.00	Male	Yes	Sat	Dinner	3
232	11.61	3.39	Male	No	Sat	Dinner	2
233	10.77	1.47	Male	No	Sat	Dinner	2
234	15.53	3.00	Male	Yes	Sat	Dinner	2
235	10.07	1.25	Male	No	Sat	Dinner	2
236	12.60	1.00	Male	Yes	Sat	Dinner	2
237	32.83	1.17	Male	Yes	Sat	Dinner	2
238	35.83	4.67	Female	No	Sat	Dinner	3
239	29.03	5.92	Male	No	Sat	Dinner	3
240	27.18	2.00	Female	Yes	Sat	Dinner	2
241	22.67	2.00	Male	Yes	Sat	Dinner	2
242	17.82	1.75	Male	No	Sat	Dinner	2
243	18.78	3.00	Female	No	Thur	Dinner	2

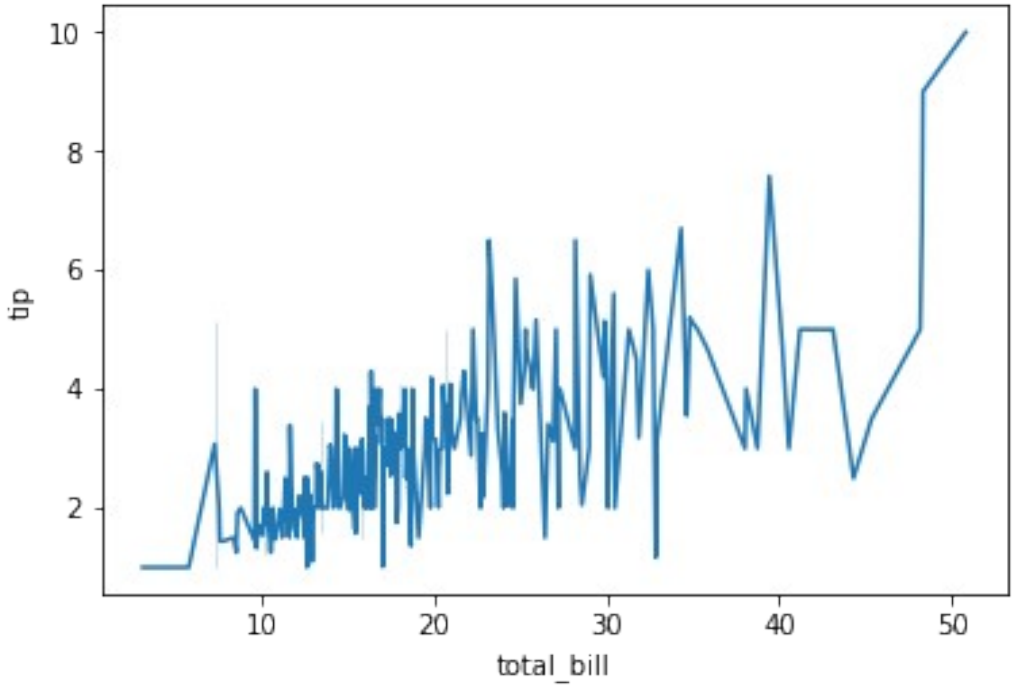
[244 rows x 7 columns]

```
tips_df.shape # get shape of dataseat tips
```

```
(244, 7)
```

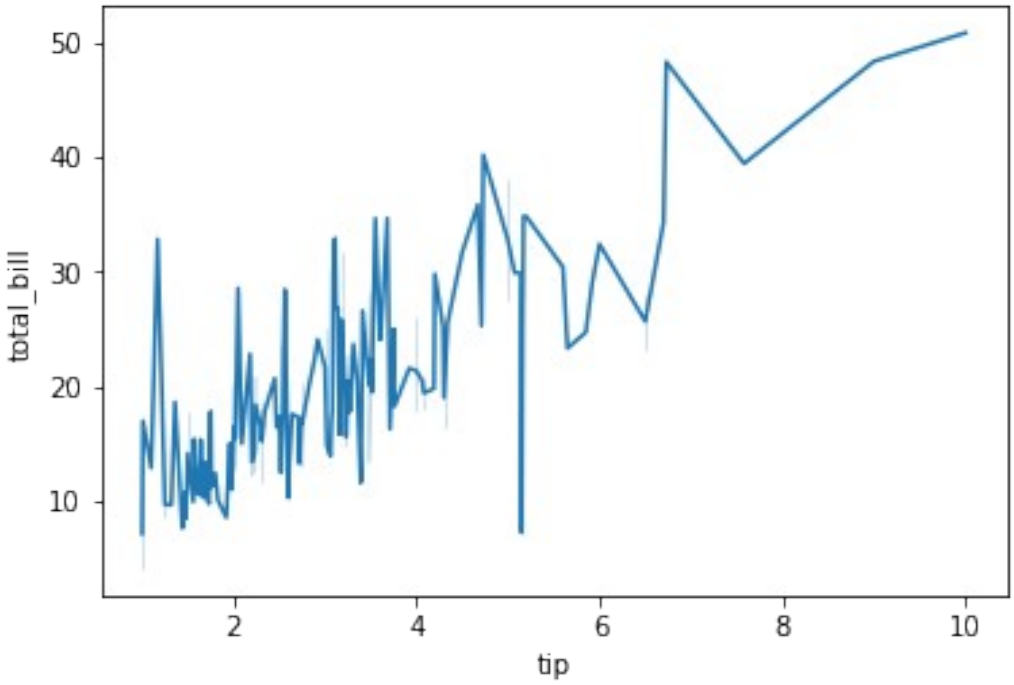
```
# Draw line plot of total_bill and tip
sns.lineplot(x = "total_bill", y = "tip", data = tips_df)
```

```
<matplotlib.axes._subplots.AxesSubplot at 0x1d742eced30>
```



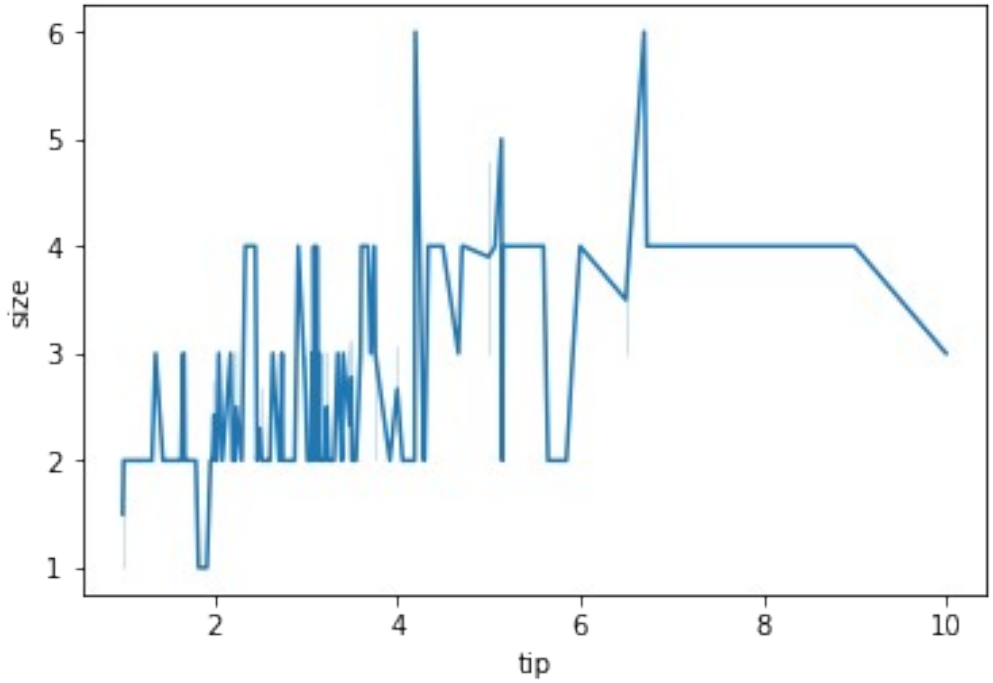

```
# Draw line plot of tip and total_bill
sns.lineplot(x = "tip", y = "total_bill", data = tips_df)
```

```
<matplotlib.axes._subplots.AxesSubplot at 0x1d7442337f0>
```



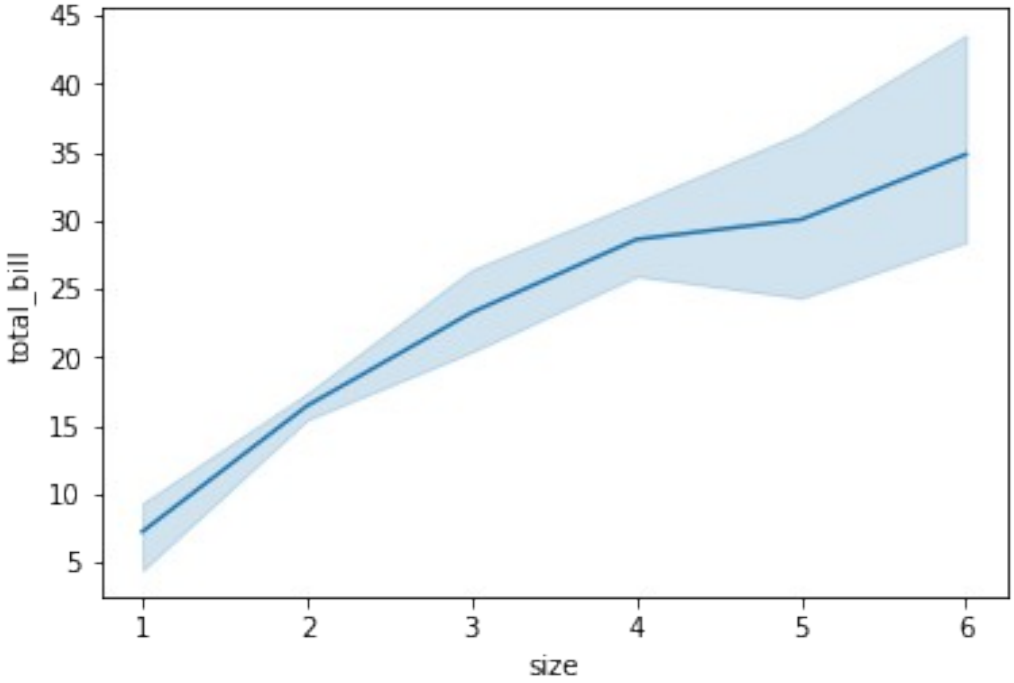

```
# Draw line plot of tip and size
sns.lineplot(x = "tip", y = "size", data = tips_df)
```

```
<matplotlib.axes._subplots.AxesSubplot at 0x1d74279a0f0>
```

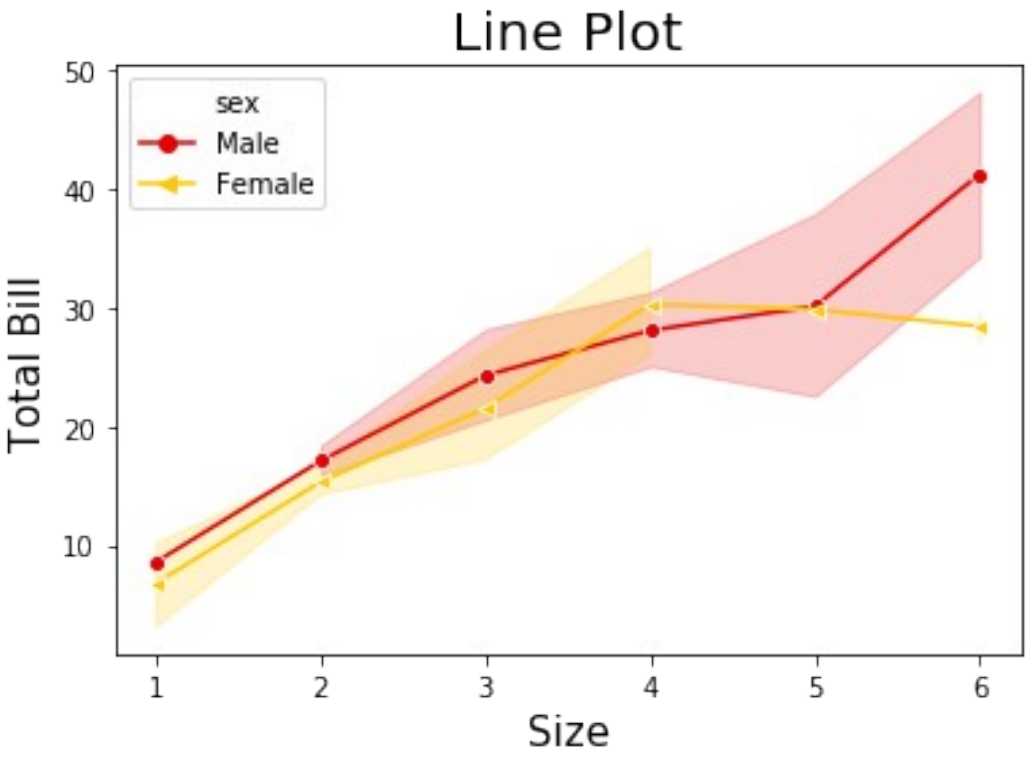



```
# Draw line plot of size and total_bill
sns.lineplot(x = "size", y = "total_bill", data = tips_df)
```

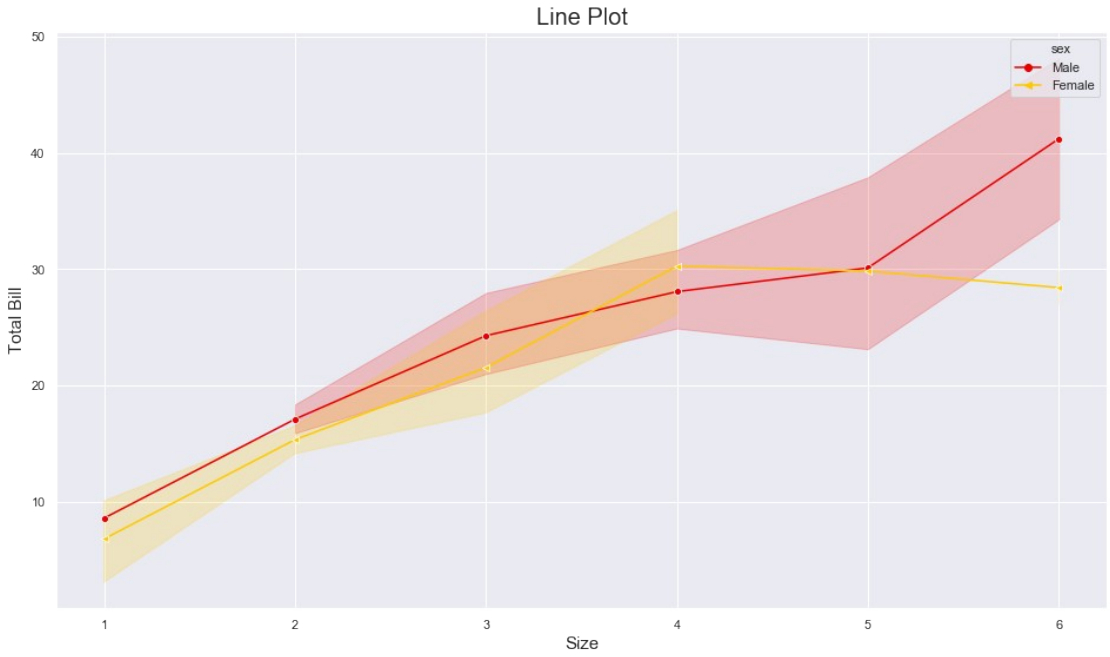
```
<matplotlib.axes._subplots.AxesSubplot at 0x1d7431e9160>
```



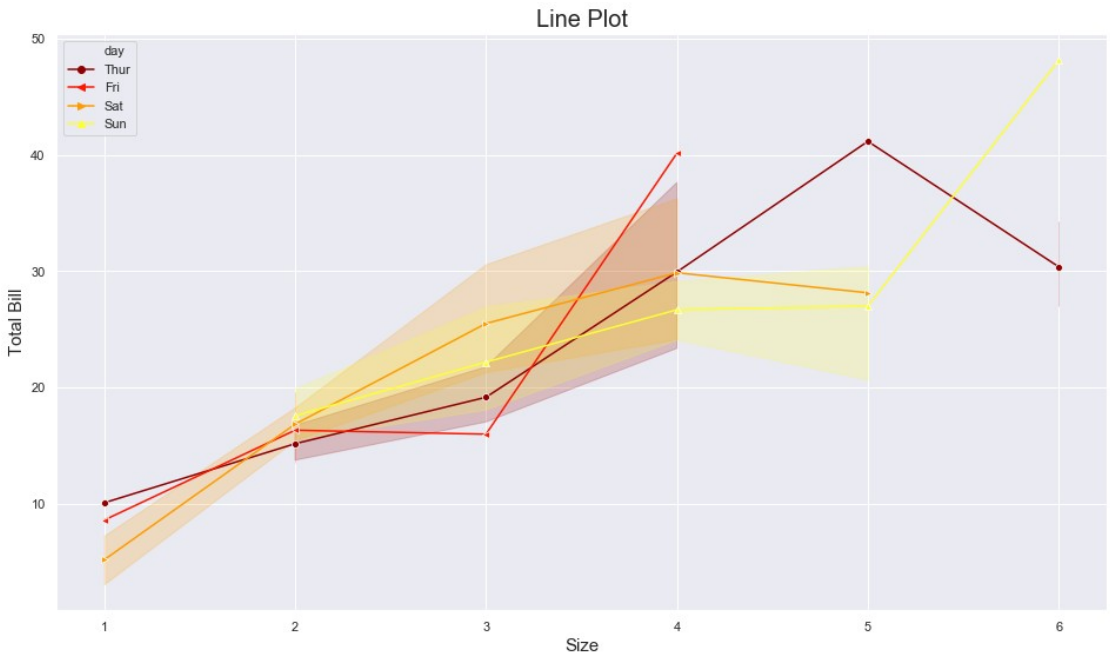

```
    # Draw line plot of size and total_bill with parameters
    sns.lineplot(x = "size", y = "total_bill", data = tips_df, hue =
"sex",
                 style = "sex", palette = "hot", dashes = False,
                 markers = ["o", "<"],  legend="brief",)

    plt.title("Line Plot", fontsize = 20) # for title
    plt.xlabel("Size", fontsize = 15) # label for x-axis
    plt.ylabel("Total Bill", fontsize = 15) # label for y-axis
    plt.show()
```




```
plt.figure(figsize = (16,9)) # figure size with ratio 16:9
sns.set(style='darkgrid',) # background darkgrid style of graph

# Draw line plot of size and total_bill with parameters
sns.lineplot(x = "size", y = "total_bill", data = tips_df, hue =
"sex",
             style = "sex", palette = "hot", dashes = False,
             markers = ["o", "<"],  legend="brief",)

plt.title("Line Plot", fontsize = 20)
plt.xlabel("Size", fontsize = 15)
plt.ylabel("Total Bill", fontsize = 15)
plt.show()
```




```
plt.figure(figsize = (16,9))
sns.set(style='darkgrid',)

# Draw line plot of size and total_bill with parameters and hue "day"
sns.lineplot(x = "size", y = "total_bill", data = tips_df, hue =
"day",
             style = "day", palette = "hot", dashes = False,
             markers = ["o", "<", ">", "^"],  legend="brief",)

plt.title("Line Plot", fontsize = 20)
plt.xlabel("Size", fontsize = 15)
plt.ylabel("Total Bill", fontsize = 15)
plt.show()
```




```
print("Thank you -:)")
```

```
Thank you -:)
```