```python
df = pd.DataFrame({
    'Experience': [1,3,5,7,9],
    'Salary': [3000,5000,7000,9000,11000],
    'Bonus': [500,800,1200,1500,2000],
    'Satisfaction': [6.5,7.0,7.8,8.2,8.7]
})
df
```
✓ 0.0s

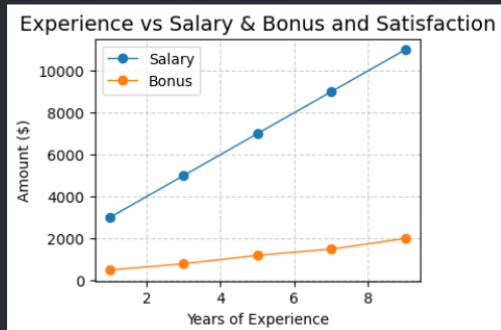|	Experience	Salary	Bonus	Satisfaction
0	1	3000	500	6.5
1	3	5000	800	7.0
2	5	7000	1200	7.8
3	7	9000	1500	8.2
4	9	11000	2000	8.7

```python
# create a figure and axis
fig, ax = plt.subplots(figsize=(4, 3))

df.plot(x='Experience', y=['Salary', 'Bonus'], marker='o', linewidth = 1, markersize = 6, ax=ax)

# use matplotlib for fine-turning0
ax.set_title('Experience vs Salary & Bonus and Satisfaction', fontsize = 14)
ax.set_xlabel('Years of Experience')
ax.set_ylabel('Amount ($)')
ax.grid(True, linestyle='--', alpha=0.6)

plt.show()
```
✓ 0.4s

```
x = df['Experience']
y1 = df['Salary']
y2 = df['Bonus']
y3 = df['Satisfaction']

fig, ax = plt.subplots(1,2, figsize=(6, 3))

ax[0].plot(x, y1)
ax[0].set_title('Experience vs Salary')
ax[0].set_xlabel('Years of Experience')
ax[0].set_ylabel('Salary ($)')

ax[1].plot(x, y2)
ax[1].set_title('Experience vs Bonus')
ax[1].set_xlabel('Years of Experience')
ax[1].set_ylabel('Bonus ($)')

fig.suptitle('Experience vs Salary & Bonus', fontsize=14)

plt.tight_layout()
plt.show()
```
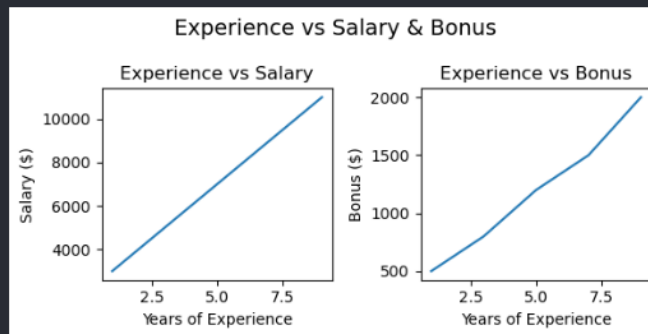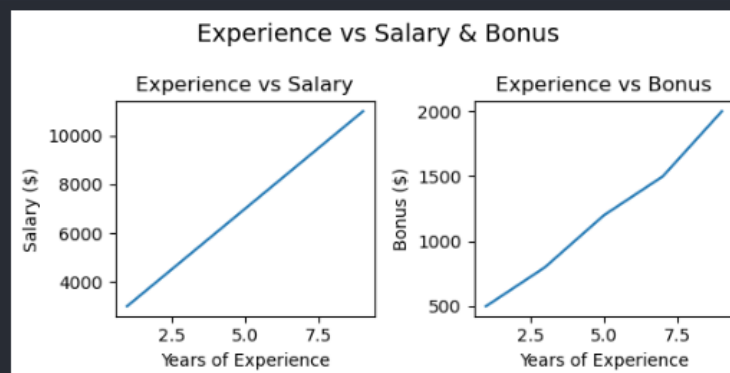
[5] ✓ 0.1s


```
fig
```

[6] ✓ 0.1s

```python
np.random.seed(42)
year_exp = np.arange(1, 21)

base_salary = 3000 + 600 * year_exp + np.random.randint(-500, 500, size=len(year_exp))

base_salary[14:17] += np.random.randint(2000, 4000,size=3)

bonus = 500 + year_exp * 100 + np.random.randint(-50, 100, size=len(year_exp))

satisfaction = np.clip(6 + (year_exp / 4)+ np.random.uniform(-0.5, 0.5, size=len(year_exp)), 6, 10)

df = pd.DataFrame({
    'Experience': year_exp,
    'Salary': base_salary,
    'Bonus': bonus,
    'Satisfaction': satisfaction
})

df
```

	Experience	Salary	Bonus	Satisfaction
0	1	3202	637	6.698886
1	2	4135	687	6.965632
2	3	5160	879	7.058397
3	4	5170	870	6.804614
4	5	5606	1007	6.847672
5	6	6171	1071	7.684233
6	7	7400	1238	7.690152
7	8	7320	1298	7.622038
8	9	8514	1408	8.245177
9	10	8621	1464	8.034389
10	11	9566	1600	9.159320
11	12	9914	1757	8.758780
12	13	10630	1804	9.412522
13	14	11358	1913	9.311711
14	15	15272	2080	9.770068
15	16	15804	2100	10.000000
16	17	15568	2284	9.934854
17	18	14171	2270	10.000000
18	19	14563	2422	10.000000
19	20	14630	2467	10.000000

```python
fig, ax = plt.subplots(figsize=(8, 6))
ax.plot(df['Experience'], df['Salary'], label='Salary', color='b', linewidth=2)
ax.set_title('using Matplotlib plt.plot()', fontsize=14)
ax.set_xlabel('Years of Experience')
ax.set_ylabel('Amount ($)')
ax.legend()
plt.grid(True, linestyle='--', alpha=0.6)
```
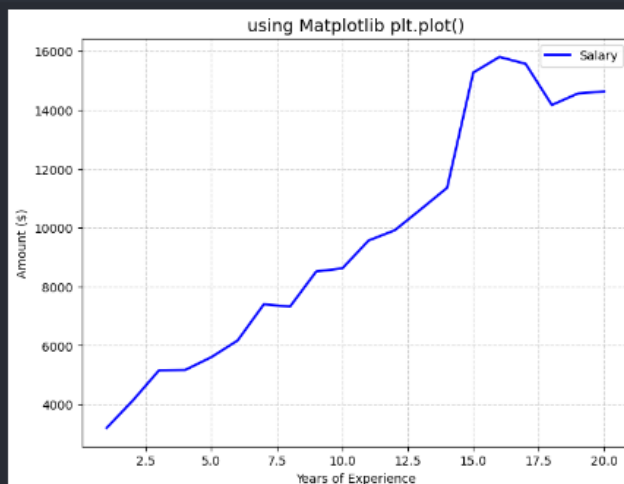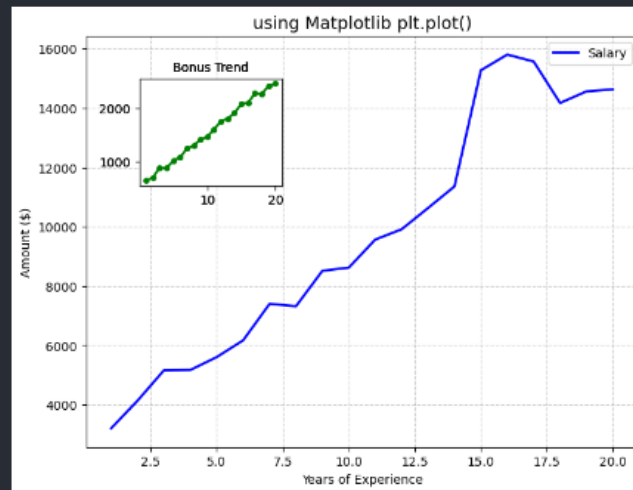
```
inset_ax1 = fig.add_axes([0.2, 0.6, 0.2, 0.2])
inset_ax1.plot(df['Experience'], df['Bonus'], 'go-', linewidth=2, markersize=4)
inset_ax1.set_title('Bonus Trend', fontsize=10)
inset_ax1.set_xticks([])
inset_ax1.set_yticks([])
inset_ax1.grid(True, linestyle='--', alpha=0.6)

fig
```
✓ 0.2s


```
salary_zoom = df[(df['Experience'] >= 15) & (df['Experience'] <= 17.5)]

inset_ax2 = fig.add_axes([0.65, 0.2, 0.25, 0.25])
inset_ax2.plot(salary_zoom['Experience'], salary_zoom['Salary'], 'r-s', linewidth=2, markersize=6)
inset_ax2.set_title('Salary Details (15-17.5 yrs)', fontsize=10)
inset_ax2.set_xlabel('Year', fontsize=8)
inset_ax2.set_ylabel('Salary ($)', fontsize=8)
inset_ax2.grid(True, linestyle='--', alpha=0.5)

fig
```
✓ 0.4s