In [36]:
```
import pandas as pd
import seaborn as sns
```

In [37]:
```
tips = sns.load_dataset('tips')
```

In [39]:
```
tips.head()
```

Out[39]:

	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

In [18]:
```
titanic = pd.read_csv('train.csv')
```

In [21]:
```
flights = sns.load_dataset('flights')
```

In [40]:
```
flights.head()
```

Out[40]:

	year	month	passengers
0	1949	January	112
1	1949	February	118
2	1949	March	132
3	1949	April	129
4	1949	May	121

In [22]:
```
iris = sns.load_dataset('iris')
```

In [41]:
```
iris
```

Out[41]:

	sepal_length	sepal_width	petal_length	petal_width	species
0	5.1	3.5	1.4	0.2	setosa
1	4.9	3.0	1.4	0.2	setosa
2	4.7	3.2	1.3	0.2	setosa
3	4.6	3.1	1.5	0.2	setosa

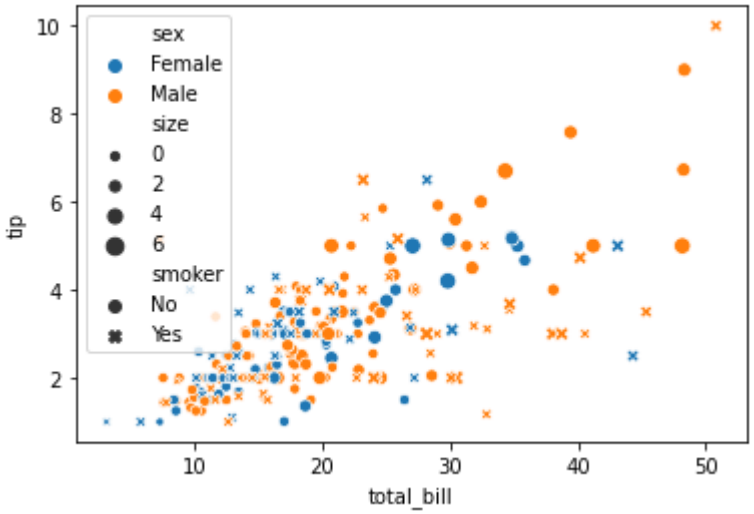
4	5.0	3.6	1.4	0.2	setosa
...	...	...	...	...	...
145	6.7	3.0	5.2	2.3	virginica
146	6.3	2.5	5.0	1.9	virginica
147	6.5	3.0	5.2	2.0	virginica
148	6.2	3.4	5.4	2.3	virginica
149	5.9	3.0	5.1	1.8	virginica

150 rows × 5 columns

1. Scatterplot (Numerical - Numerical)

In [45]:
```
sns.scatterplot(tips['total_bill'],tips['tip'],hue=df['sex'],style=df['smoker']
```

Out[45]:



2. Bar Plot (Numerical - Categorical)

In [47]:
```
titanic.head()
```

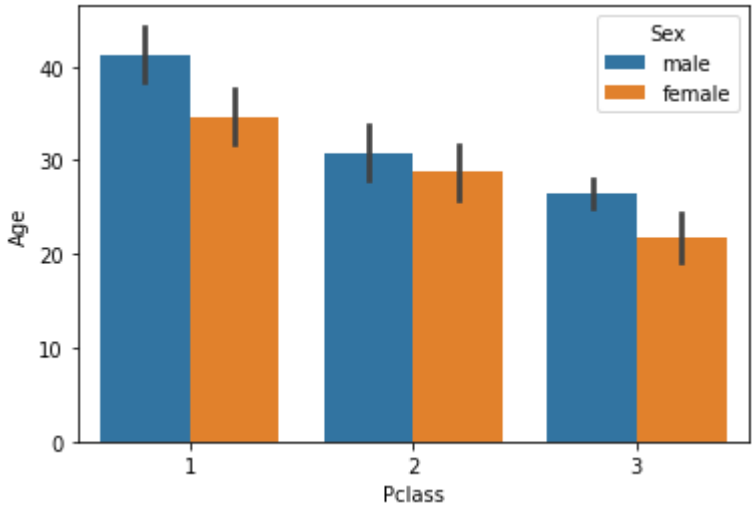
Out[47]:

	PassengerId	Survived	Pclass	Name	Sex	Age	SibSp	Parch	Ticket	Fare	Ca
0	1	0	3	Braund, Mr. Owen Harris	male	22.0	1	0	A/5 21171	7.2500	N
1	2	1	1	Cumings, Mrs. John Bradley (Florence Briggs Th...	female	38.0	1	0	PC 17599	71.2833	

2	3	1	3	Heikkinen, Miss. Laina	female	26.0	0	0	STON/O2. 3101282	7.9250	N
3	4	1	1	Futrelle, Mrs. Jacques Heath (Lily May Peel)	female	35.0	1	0	113803	53.1000	C
4	5	0	3	Allen, Mr. William Henry	male	35.0	0	0	373450	8.0500	N

In [52]:
```
sns.barplot(titanic['Pclass'],titanic['Age'],hue=titanic['Sex'])
```

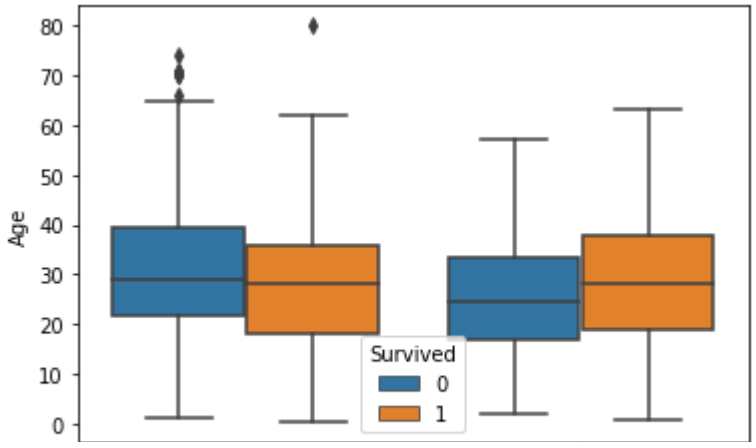
Out[52]:

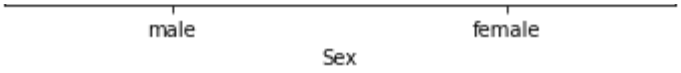


3. Box Plot (Numerical - Categorical)

In [54]:
```
sns.boxplot(titanic['Sex'],titanic['Age'],hue=titanic['Survived'])
```

Out[54]:

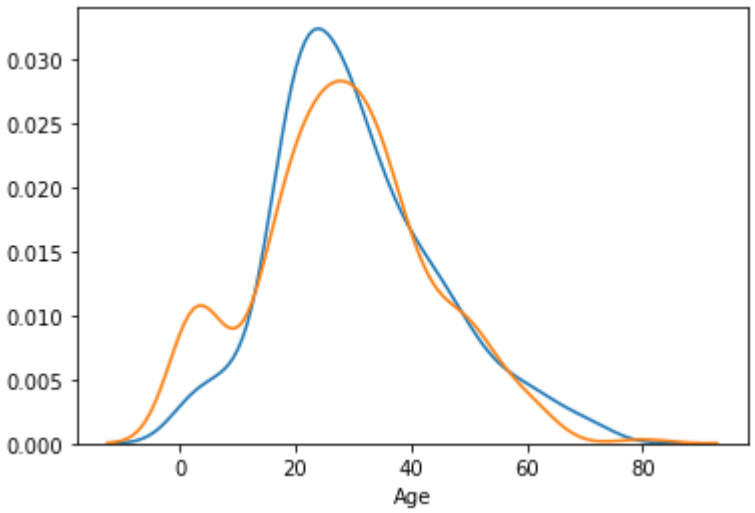




4. Distplot (Numerical - Categorical)

In [61]:
```
sns.distplot(titanic[titanic['Survived']==0]['Age'],hist=False)
sns.distplot(titanic[titanic['Survived']==1]['Age'],hist=False)
```

Out[61]:



5. HeatMap (Categorical - Categorical)

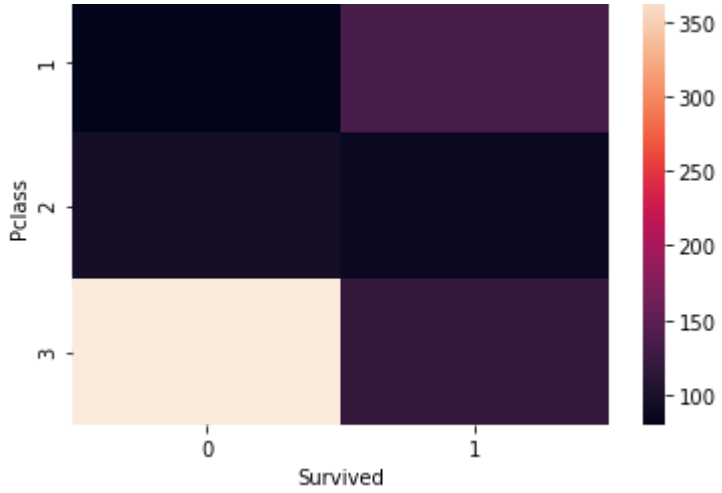
In [62]:
```
titanic.head(3)
```

Out[62]:

	PassengerId	Survived	Pclass	Name	Sex	Age	SibSp	Parch	Ticket	Fare	Ca
0	1	0	3	Braund, Mr. Owen Harris	male	22.0	1	0	A/5 21171	7.2500	N
1	2	1	1	Cumings, Mrs. John Bradley (Florence Briggs Th...	female	38.0	1	0	PC 17599	71.2833	
2	3	1	3	Heikkinen, Miss. Laina	female	26.0	0	0	STON/O2. 3101282	7.9250	N

In [64]:
```
sns.heatmap(pd.crosstab(titanic['Pclass'],titanic['Survived']))
```

Out[64]:



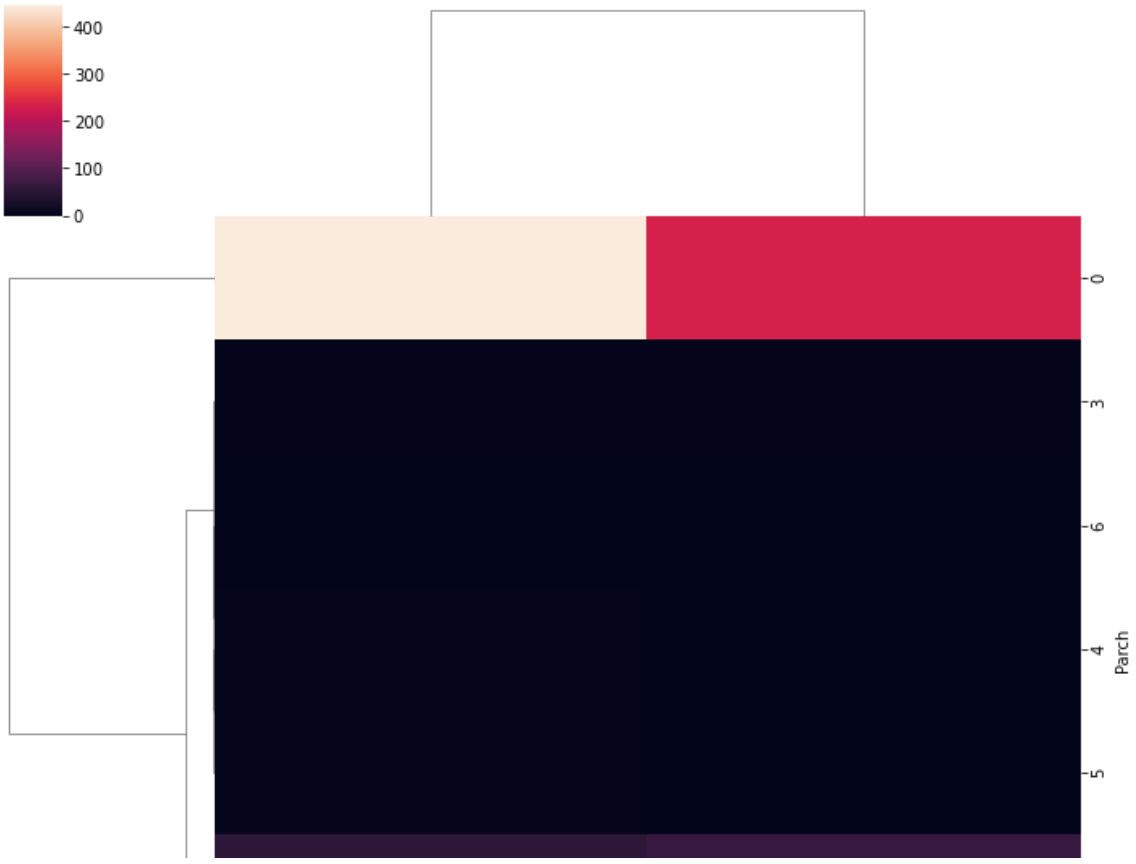
In [72]:
```
(titanic.groupby('Embarked').mean()['Survived']*100)
```

Out[72]:
```
Embarked
C    55.357143
Q    38.961039
S    33.695652
Name: Survived, dtype: float64
```

6. ClusterMap (Categorical - Categorical)

In [75]:
```
sns.clustermap(pd.crosstab(titanic['Parch'],titanic['Survived']))
```

Out[75]:



7. Pairplot

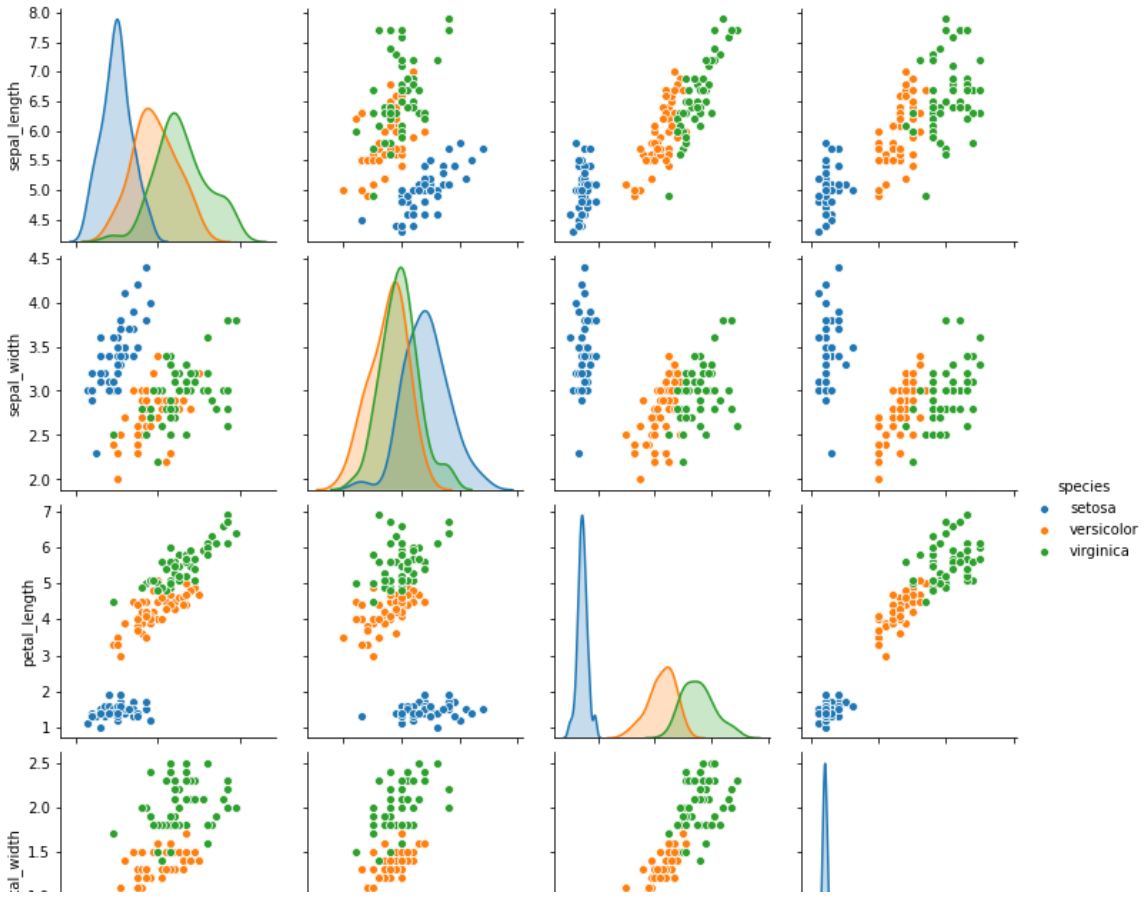
In [76]:
```
iris.head()
```

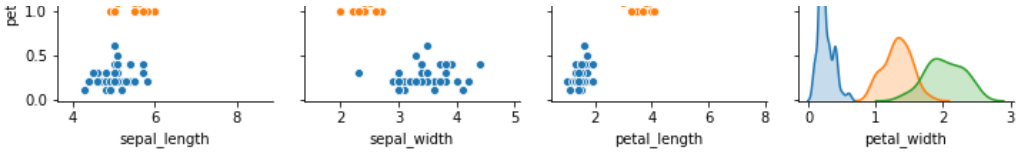
Out[76]:

	sepal_length	sepal_width	petal_length	petal_width	species
0	5.1	3.5	1.4	0.2	setosa
1	4.9	3.0	1.4	0.2	setosa
2	4.7	3.2	1.3	0.2	setosa
3	4.6	3.1	1.5	0.2	setosa
4	5.0	3.6	1.4	0.2	setosa

In [78]:
```
sns.pairplot(iris,hue='species')
```

Out[78]:





8. Lineplot (Numerical - Numerical)

In [79]:
```
flights.head()
```

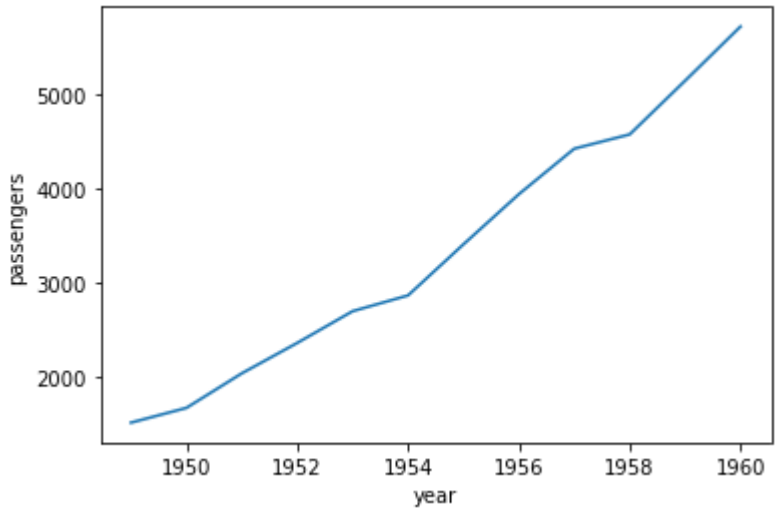
Out[79]:

	year	month	passengers
0	1949	January	112
1	1949	February	118
2	1949	March	132
3	1949	April	129
4	1949	May	121

In [83]:
```
new = flights.groupby('year').sum().reset_index()
```

In [84]:
```
sns.lineplot(new['year'],new['passengers'])
```

Out[84]:



In [85]:
```
flights
```

Out[85]:

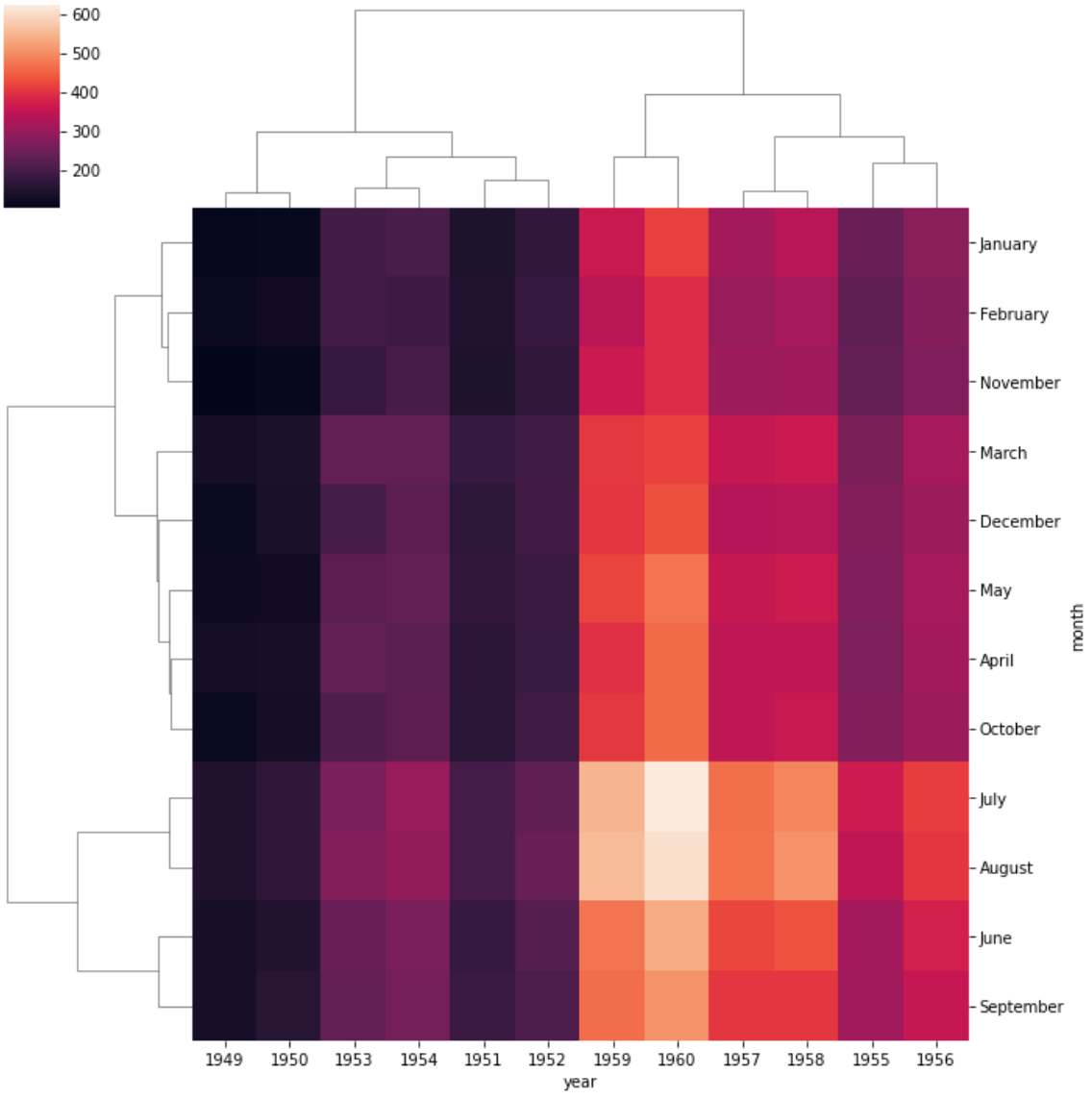
	year	month	passengers
0	1949	January	112
1	1949	February	118
2	1949	March	132
3	1949	April	129

4	1949	May	121
...	...	...	...
139	1960	August	606
140	1960	September	508
141	1960	October	461
142	1960	November	390
143	1960	December	432

144 rows × 3 columns

In [88]:
```
sns.clustermap(flights.pivot_table(values='passengers',index='month',columns='y
```

Out[88]:



In [ ]: