In [58]:

```
#122021601009
#PRACTICED THE BASICS GIVEN ON THE MATERIAL AND THEN IMPLEMENTED ON IRIS DATA SET
import seaborn as sns
```

In [2]:

```
df=sns.load_dataset("tips")
```

In [3]:

```
df.head()
```

Out[3]:

	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 [4]:

```
df.corr()
```

Out[4]:

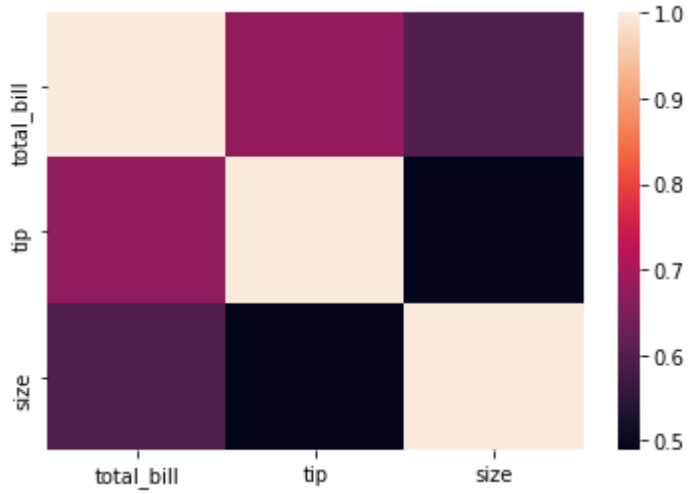
	total_bill	tip	size
total_bill	1.000000	0.675734	0.598315
tip	0.675734	1.000000	0.489299
size	0.598315	0.489299	1.000000

In [5]:

```
sns.heatmap(df.corr())
```

Out[5]:

```
<matplotlib.axes._subplots.AxesSubplot at 0x2a0593c3ba8>
```

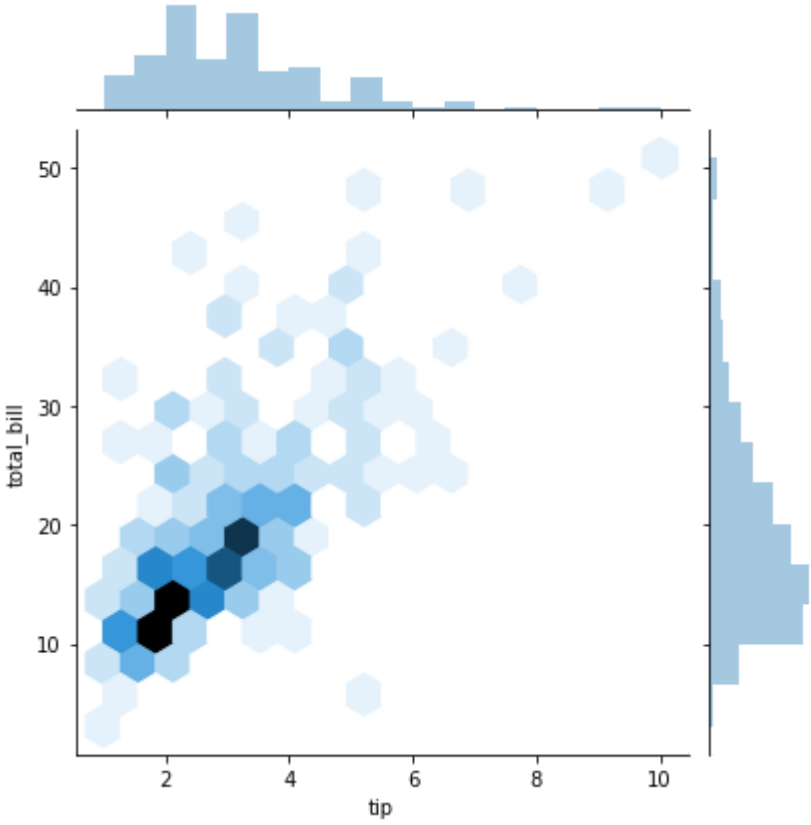


In [6]:

```
sns.jointplot(x='tip',y='total_bill',data=df,kind='hex')
```

Out[6]:

```
<seaborn.axisgrid.JointGrid at 0x2a0591575c0>
```

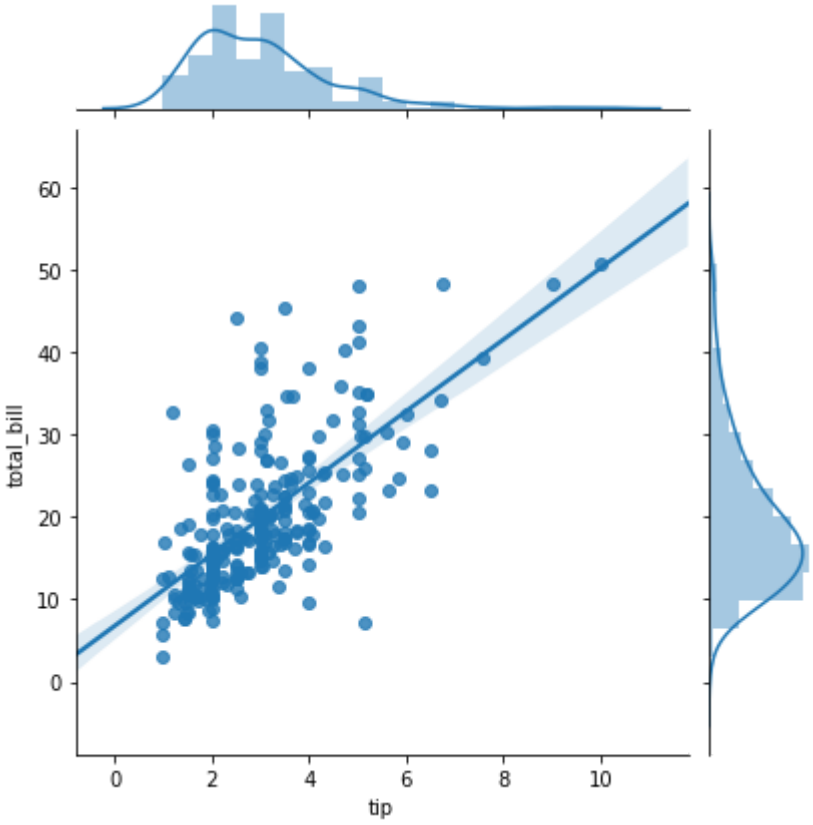


In [7]:

```
sns.jointplot(x='tip',y='total_bill',data=df,kind='reg')
```

Out[7]:

```
<seaborn.axisgrid.JointGrid at 0x2a05a515ac8>
```

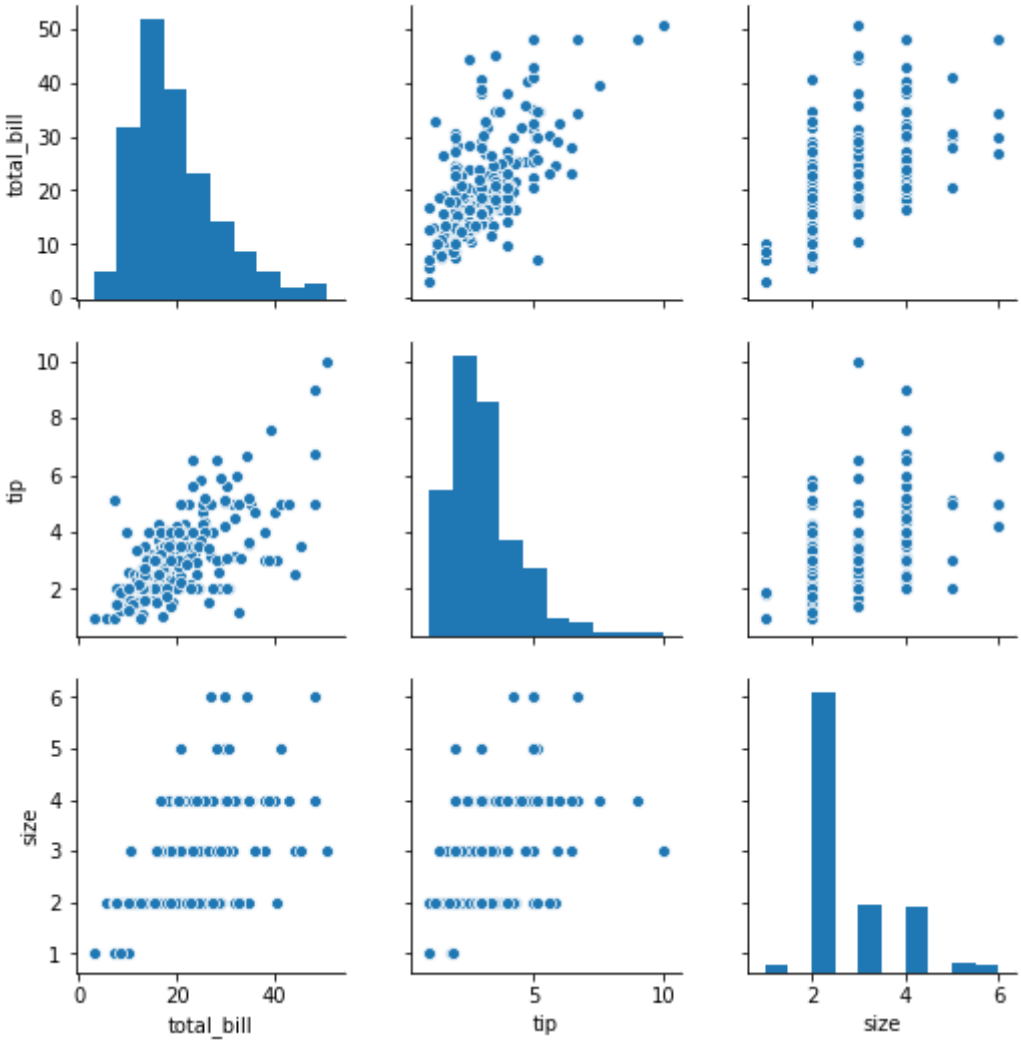


In [8]:

```
sns.pairplot(df)
```

Out[8]:

```
<seaborn.axisgrid.PairGrid at 0x2a05a51ea58>
```

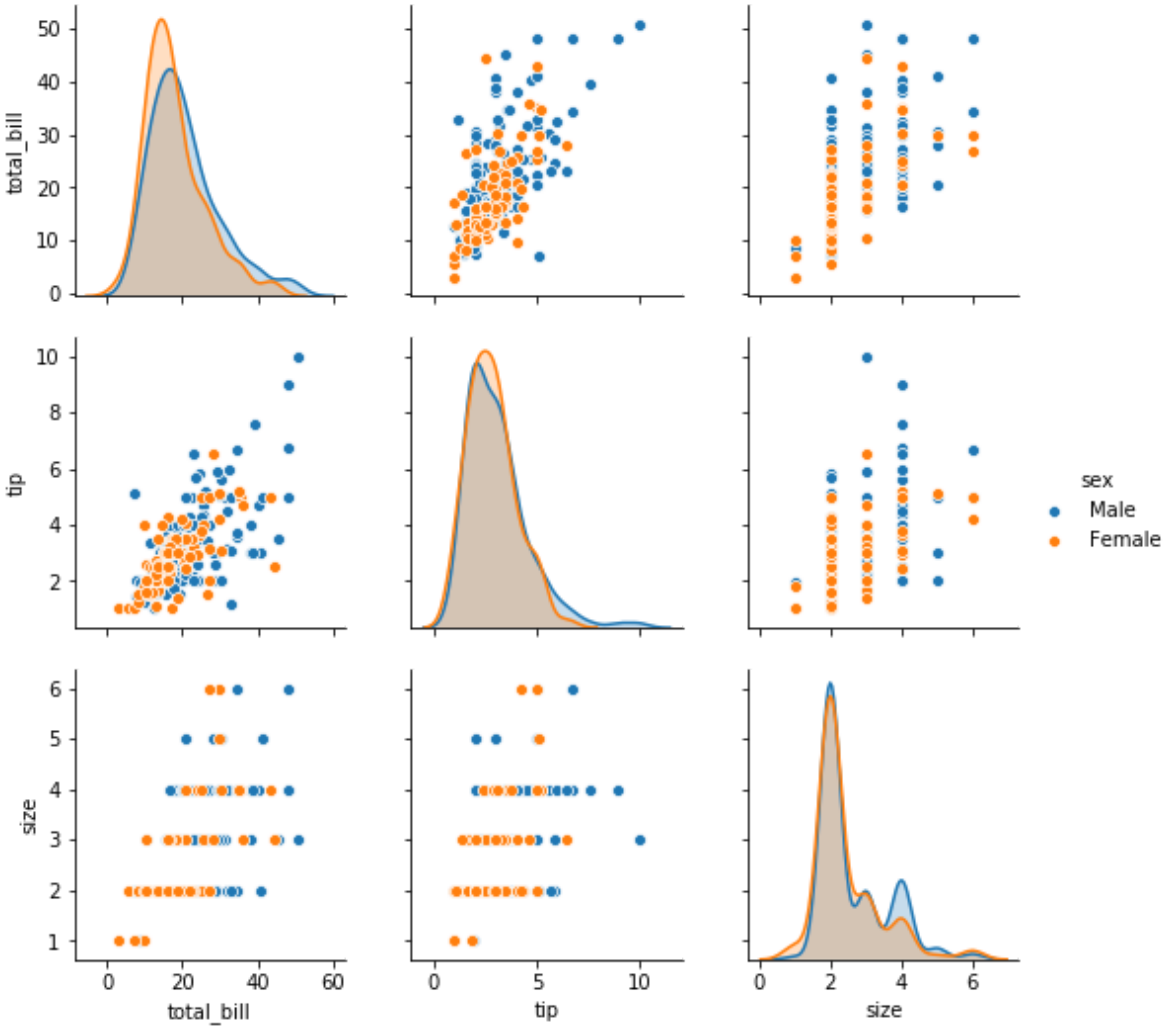


In [9]:

```
sns.pairplot(df,hue='sex')
```

Out[9]:

```
<seaborn.axisgrid.PairGrid at 0x2a05ade5b00>
```

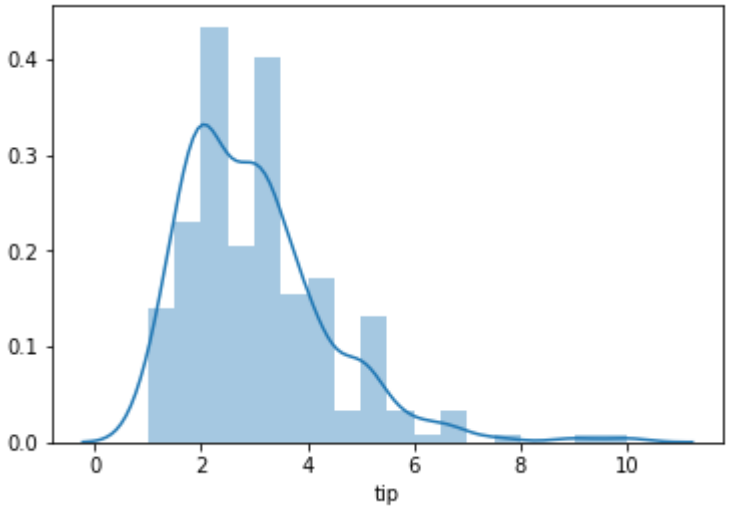


In [10]:

```
sns.distplot(df['tip'])
```

Out[10]:

```
<matplotlib.axes._subplots.AxesSubplot at 0x2a05c516e10>
```

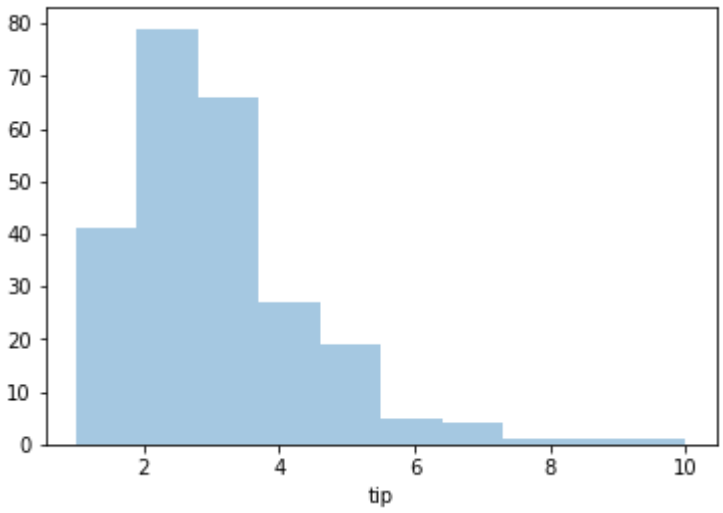


In [11]:

```
sns.distplot(df['tip'],kde=False,bins=10)
```

Out[11]:

```
<matplotlib.axes._subplots.AxesSubplot at 0x2a05c732f60>
```



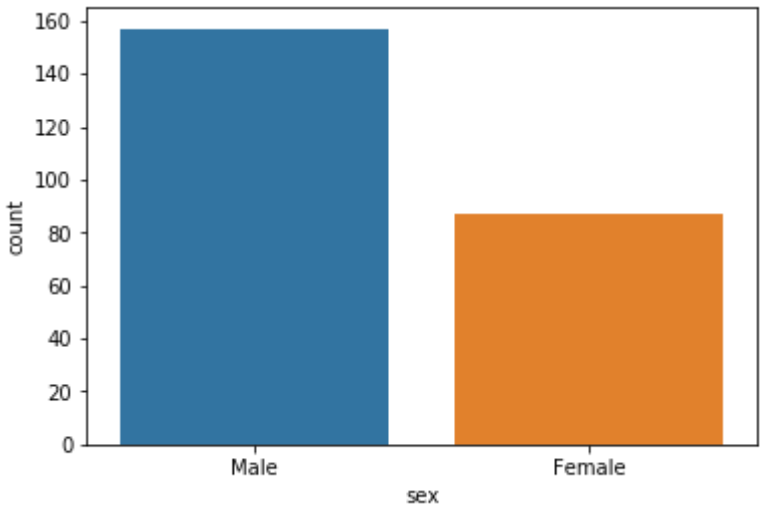
In [12]:

```
## Count plot

sns.countplot('sex',data=df)
```

Out[12]:

```
<matplotlib.axes._subplots.AxesSubplot at 0x2a05c7970f0>
```



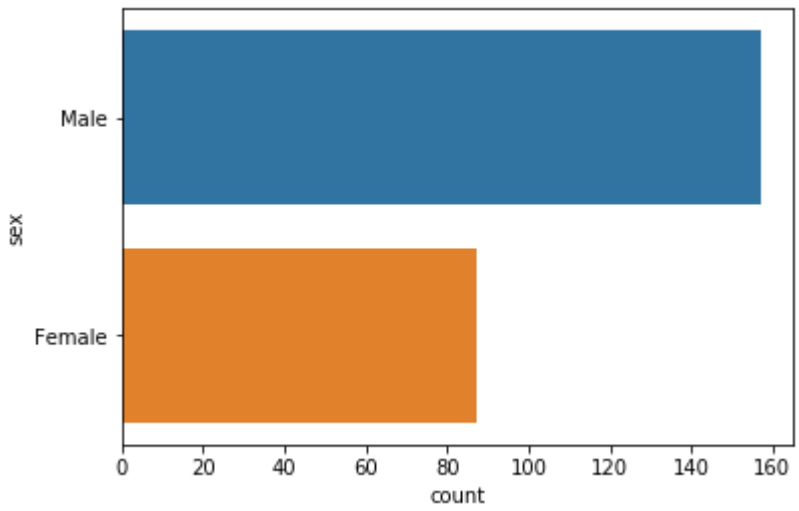
In [13]:

```
## Count plot

sns.countplot(y='sex',data=df)
```

Out[13]:

```
<matplotlib.axes._subplots.AxesSubplot at 0x2a05c7d14e0>
```

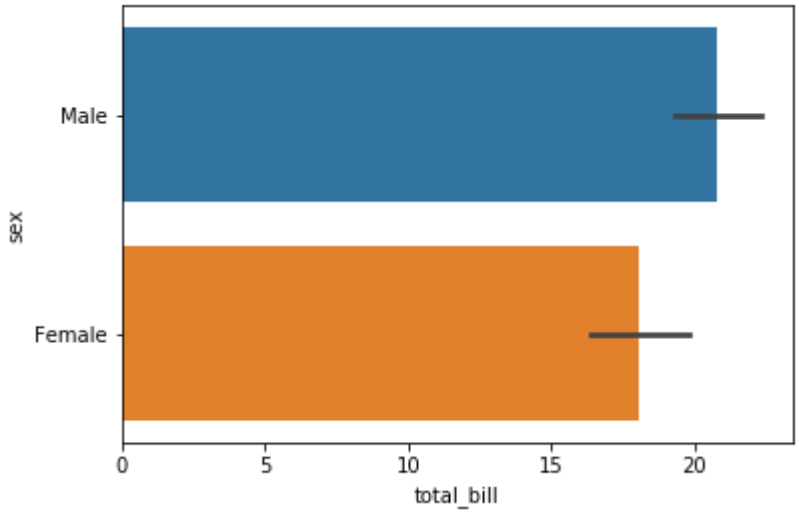


In [14]:

```
## Bar plot
sns.barplot(x='total_bill',y='sex',data=df)
```

Out[14]:

```
<matplotlib.axes._subplots.AxesSubplot at 0x2a05c82c710>
```

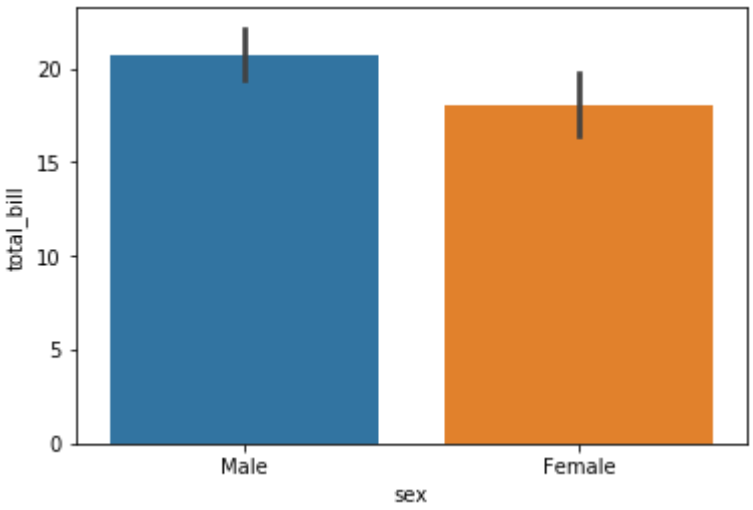


In [15]:

```
## Bar plot
sns.barplot(x='sex',y='total_bill',data=df)
```

Out[15]:

```
<matplotlib.axes._subplots.AxesSubplot at 0x2a05c7d1748>
```



In [16]:

```
df.head()
```

Out[16]:

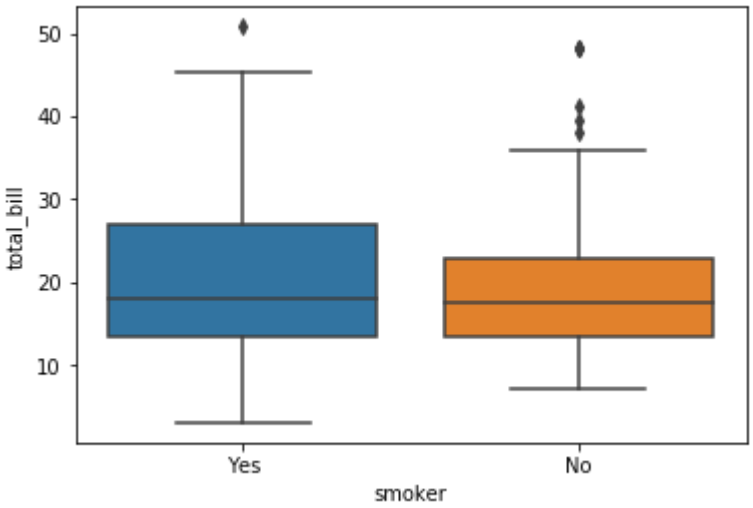
	total_bill	tip	sex	smoker	day	time	size
0	16.99	1.01	Female	No	Sun	Dinner	2
1	10.34	1.66	Male	No	Sun	Dinner	3
2	21.01	3.50	Male	No	Sun	Dinner	3
3	23.68	3.31	Male	No	Sun	Dinner	2
4	24.59	3.61	Female	No	Sun	Dinner	4

In [17]:

```
sns.boxplot('smoker','total_bill', data=df)
```

Out[17]:

```
<matplotlib.axes._subplots.AxesSubplot at 0x2a05c8cb7b8>
```

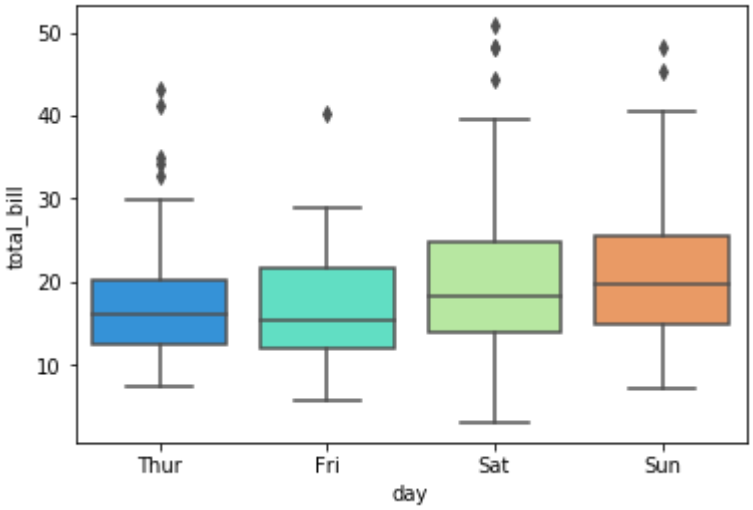


In [18]:

```
sns.boxplot(x="day", y="total_bill", data=df,palette='rainbow')
```

Out[18]:

```
<matplotlib.axes._subplots.AxesSubplot at 0x2a05c9344e0>
```

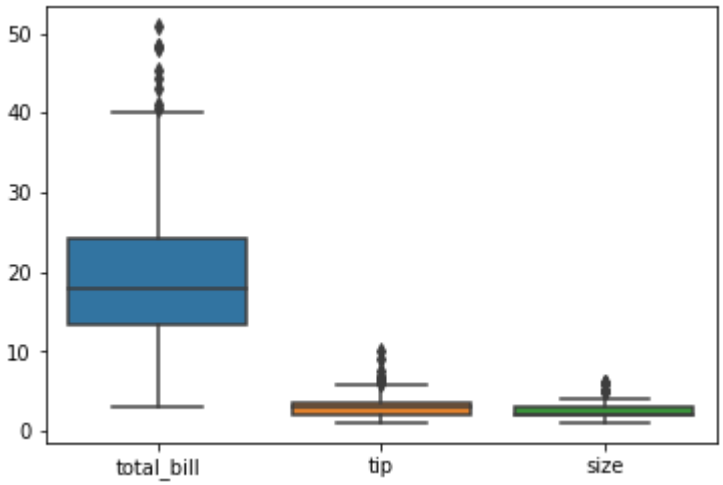


In [19]:

```
sns.boxplot(data=df,orient='v')
```

Out[19]:

```
<matplotlib.axes._subplots.AxesSubplot at 0x2a05c99f3c8>
```



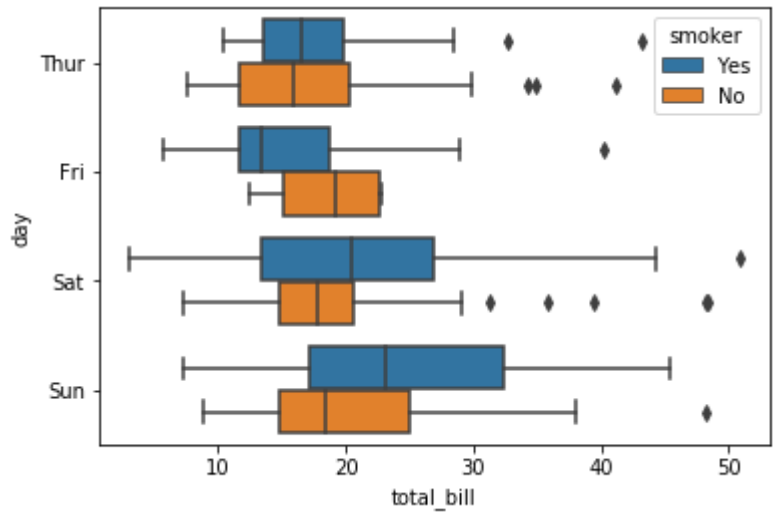
In [20]:

```
# categorize my data based on some other categories

sns.boxplot(x="total_bill", y="day", hue="smoker",data=df)
```

Out[20]:

```
<matplotlib.axes._subplots.AxesSubplot at 0x2a05ca33fd0>
```

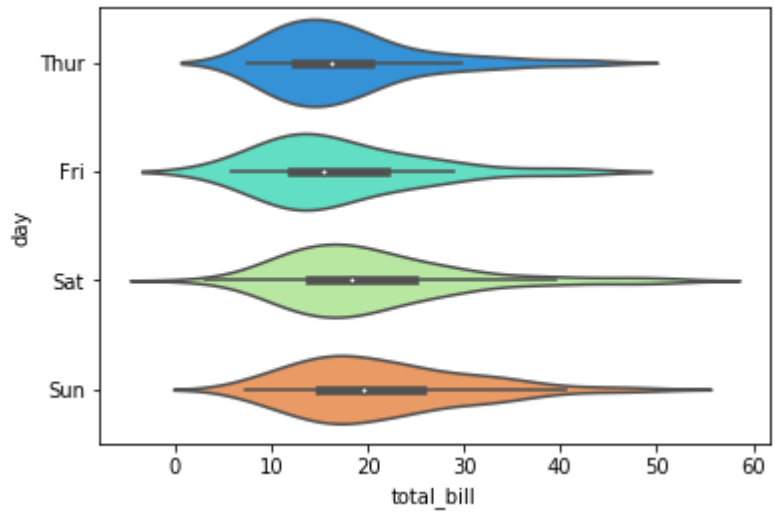


In [21]:

```
sns.violinplot(x="total_bill", y="day", data=df,palette='rainbow')
```

Out[21]:

```
<matplotlib.axes._subplots.AxesSubplot at 0x2a05cb090f0>
```



In [22]:

```
## Practise Homework

iris = sns.load_dataset('iris')
```

In [30]:

```
import seaborn as sns
iris = sns.load_dataset('iris')
iris.head()
```

Out[30]:

	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 [33]:

```
iris.corr()
```

Out[33]:

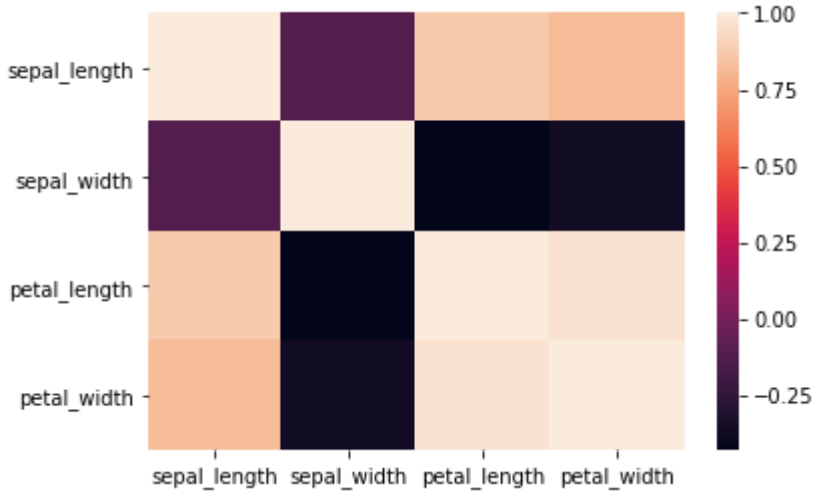
	sepal_length	sepal_width	petal_length	petal_width
sepal_length	1.000000	-0.117570	0.871754	0.817941
sepal_width	-0.117570	1.000000	-0.428440	-0.366126
petal_length	0.871754	-0.428440	1.000000	0.962865
petal_width	0.817941	-0.366126	0.962865	1.000000

In [34]:

```
sns.heatmap(iris.corr())
```

Out[34]:

```
<matplotlib.axes._subplots.AxesSubplot at 0x2a05cc14cf8>
```

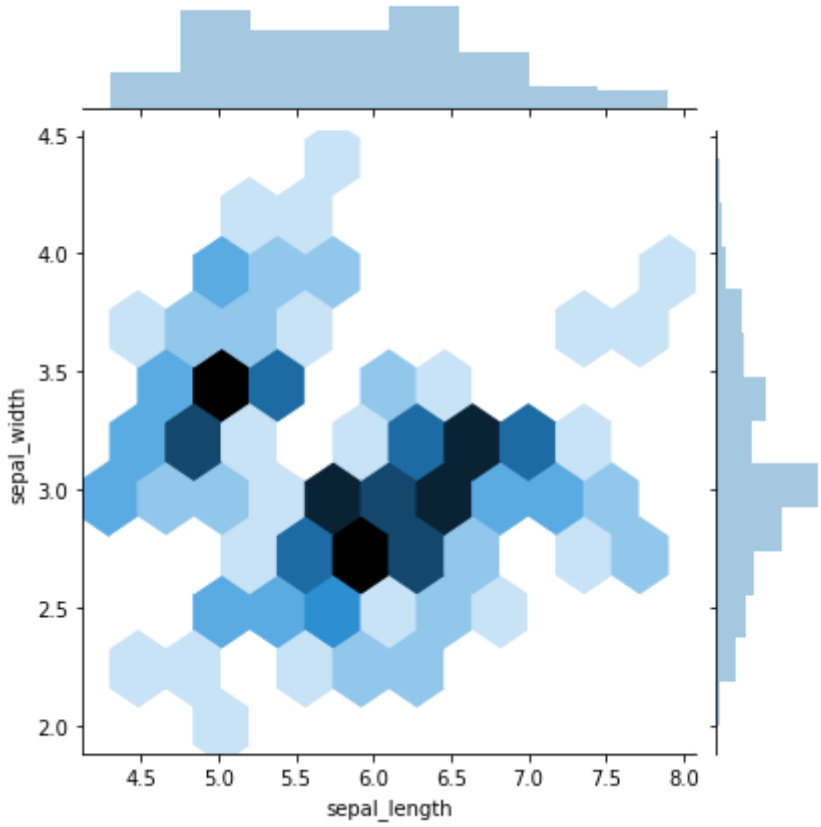


In [35]:

```
sns.jointplot(x='sepal_length',y='sepal_width',data=iris,kind='hex')
```

Out[35]:

```
<seaborn.axisgrid.JointGrid at 0x2a05cc928d0>
```

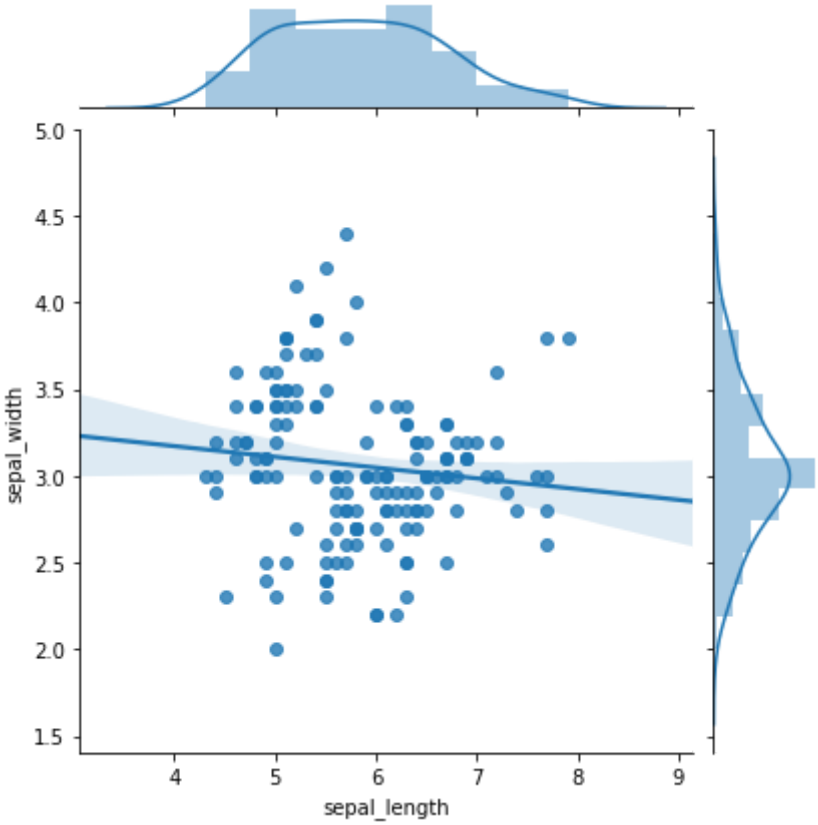


In [36]:

```
sns.jointplot(x='sepal_length',y='sepal_width',data=iris,kind='reg')
```

Out[36]:

```
<seaborn.axisgrid.JointGrid at 0x2a05cdbe438>
```

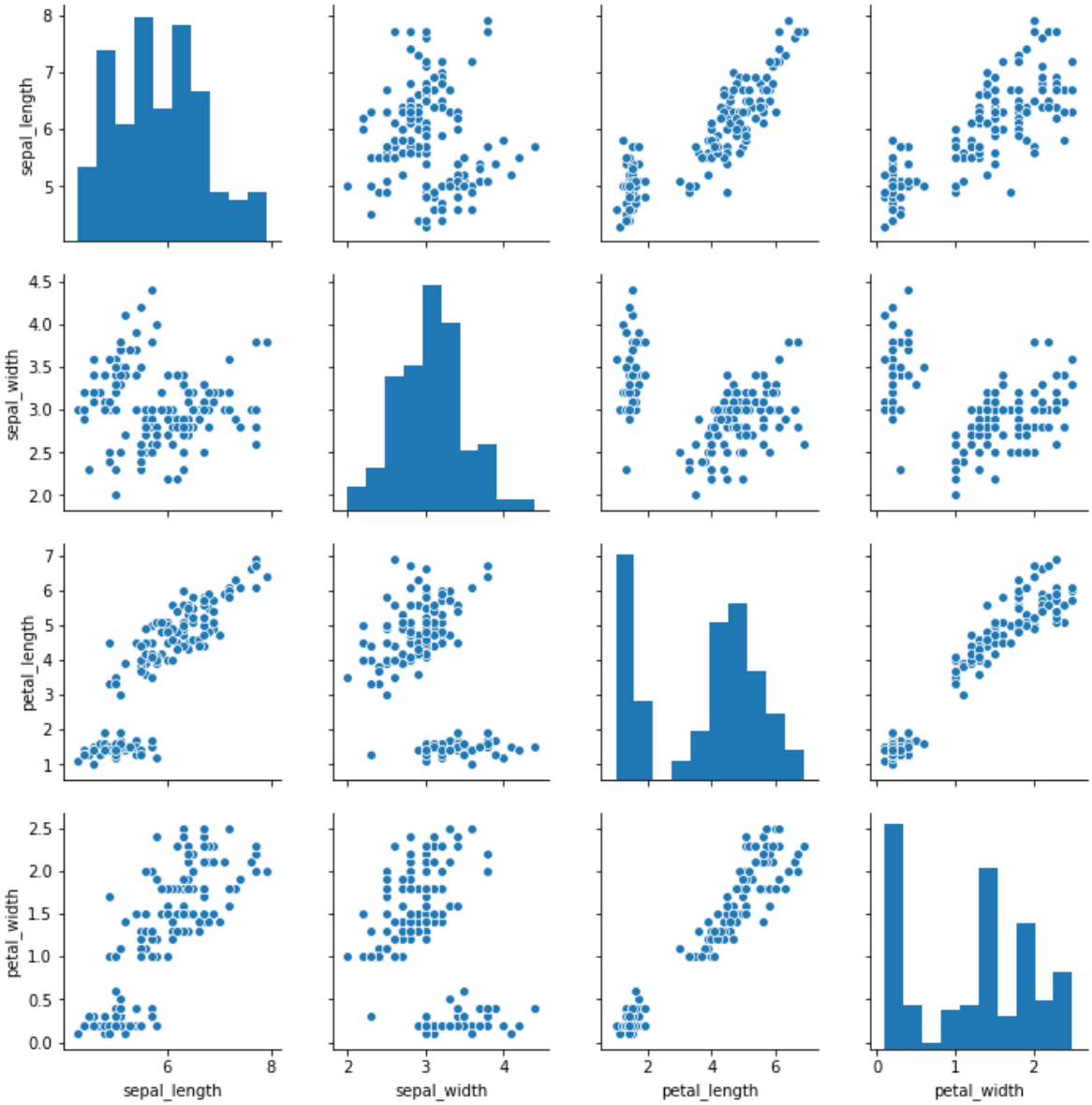


In [38]:

```
sns.pairplot(iris)
```

Out[38]:

```
<seaborn.axisgrid.PairGrid at 0x2a05e8de748>
```

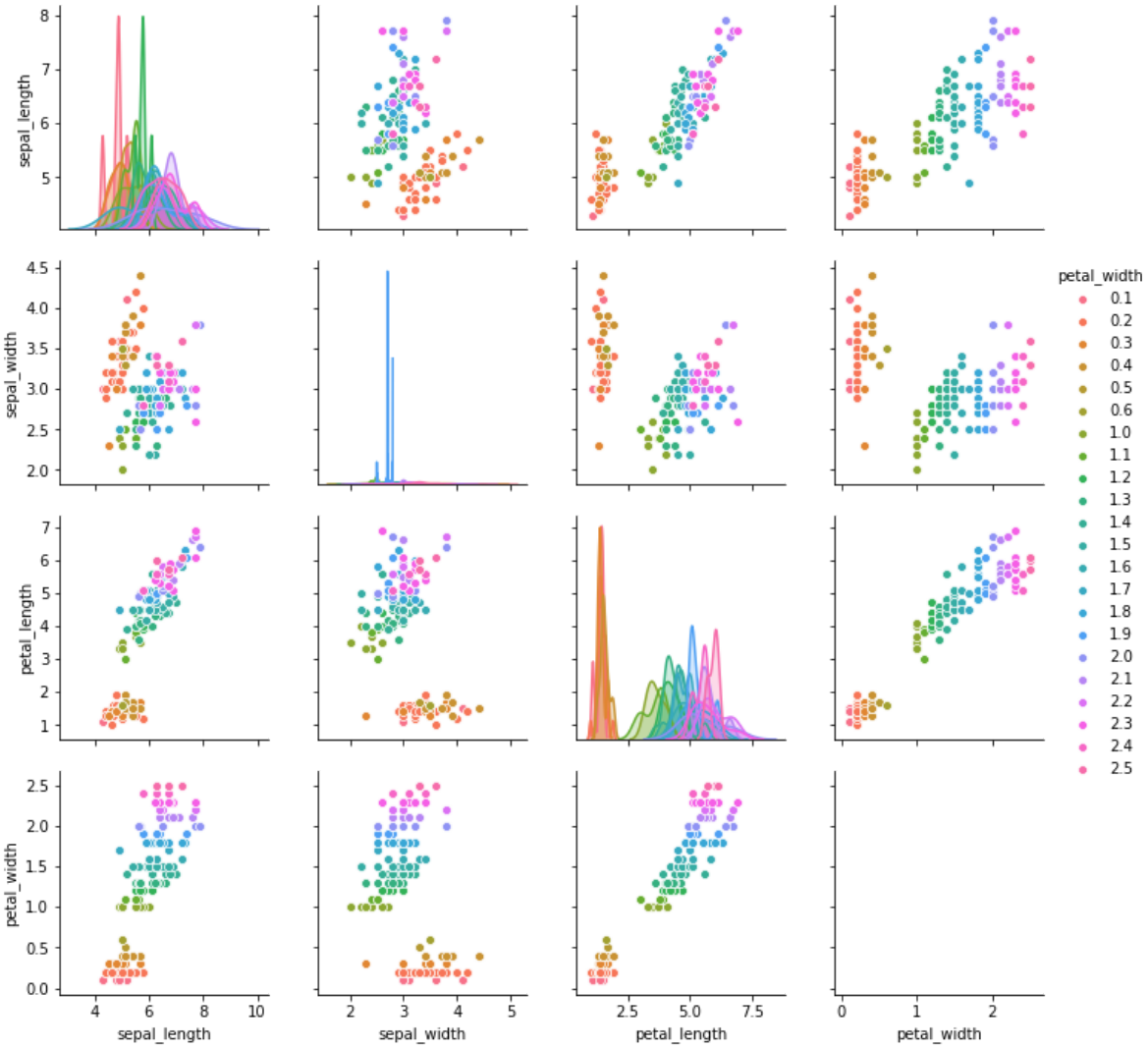


In [43]:

```
sns.pairplot(iris , hue='petal_width')
```

Out[43]:

```
<seaborn.axisgrid.PairGrid at 0x2a05f2edeb8>
```

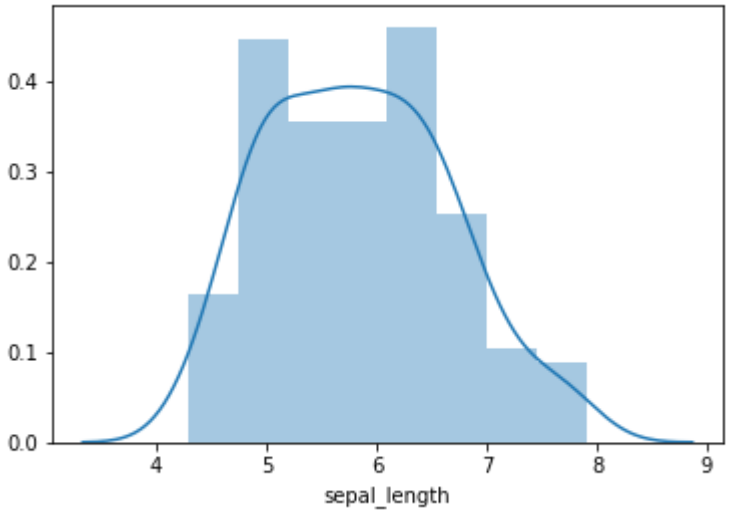


In [45]:

```
sns.distplot(iris['sepal_length'])
```

Out[45]:

```
<matplotlib.axes._subplots.AxesSubplot at 0x2a05ff52630>
```

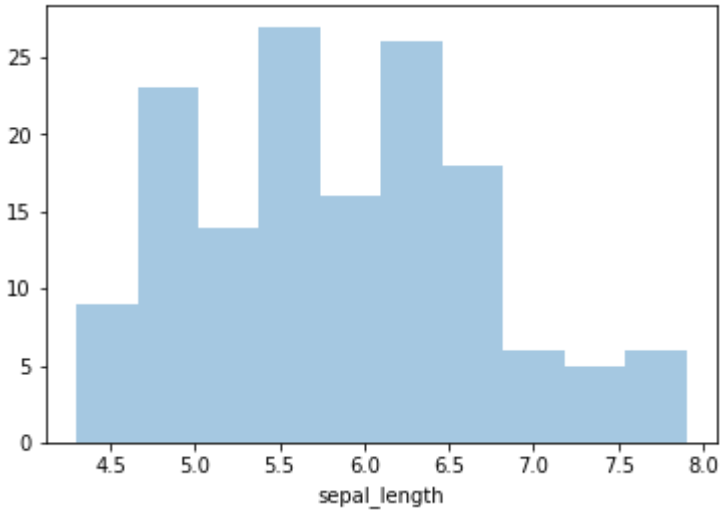


In [46]:

```
sns.distplot(iris['sepal_length'],kde=False,bins=10)
```

Out[46]:

```
<matplotlib.axes._subplots.AxesSubplot at 0x2a062b42470>
```



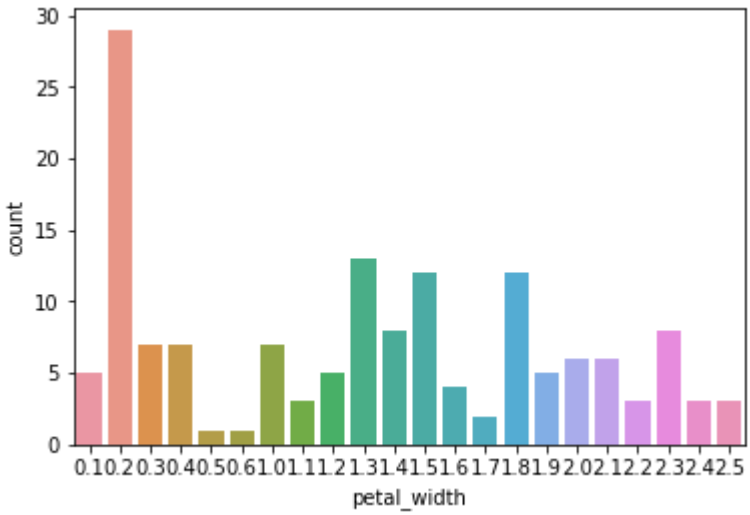
In [47]:

```
## Count plot

sns.countplot('petal_width',data=iris)
```

Out[47]:

```
<matplotlib.axes._subplots.AxesSubplot at 0x2a062df6b70>
```



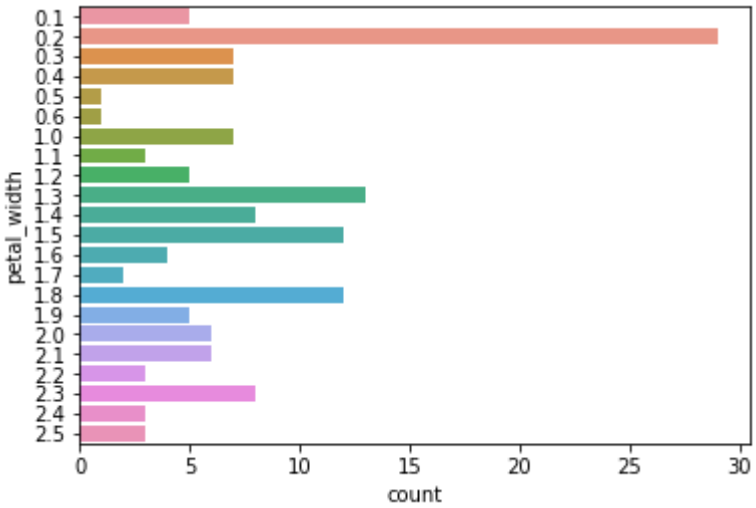
In [48]:

```
## Count plot

sns.countplot(y='petal_width',data=iris)
```

Out[48]:

```
<matplotlib.axes._subplots.AxesSubplot at 0x2a062ea3be0>
```

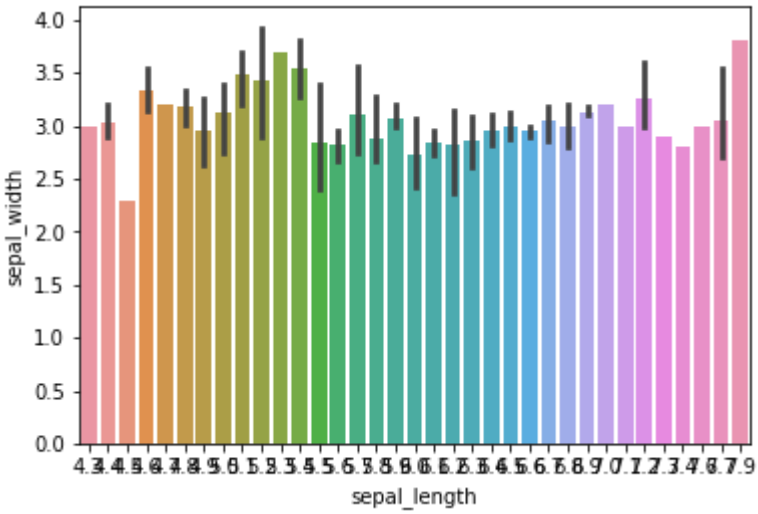


In [51]:

```
## Bar plot
sns.barplot(x='sepal_length',y='sepal_width',data=iris)
```

Out[51]:

```
<matplotlib.axes._subplots.AxesSubplot at 0x2a062f5d780>
```

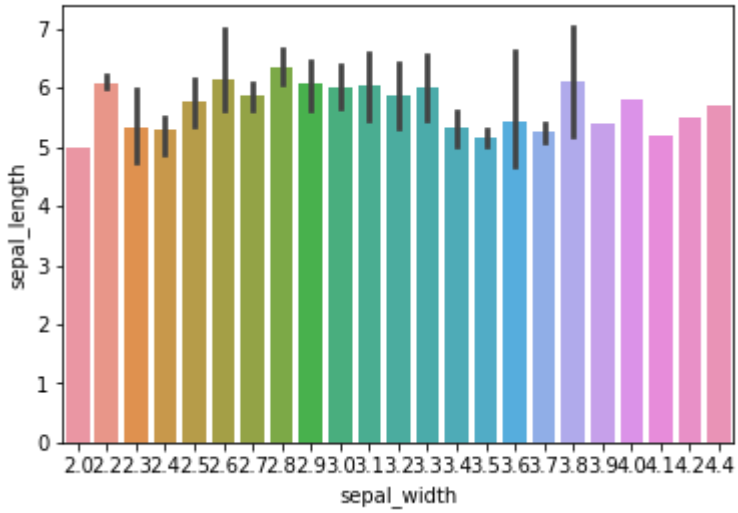


In [52]:

```
## Bar plot
sns.barplot(x='sepal_width',y='sepal_length',data=iris)
```

Out[52]:

```
<matplotlib.axes._subplots.AxesSubplot at 0x2a06309af98>
```

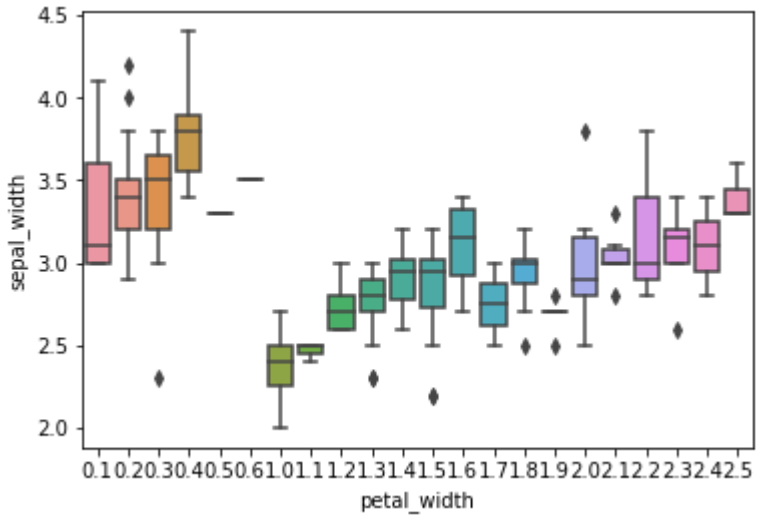


In [53]:

```
sns.boxplot('petal_width','sepal_width', data=iris)
```

Out[53]:

```
<matplotlib.axes._subplots.AxesSubplot at 0x2a06315ce48>
```

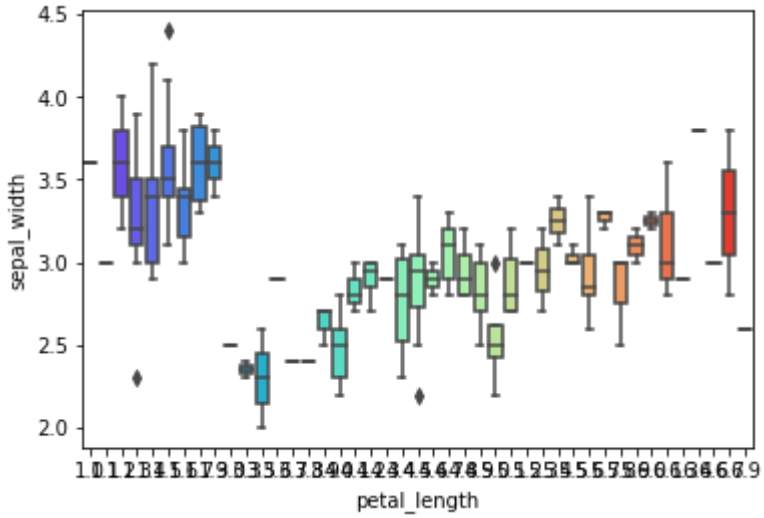


In [54]:

```
sns.boxplot(x="petal_length", y="sepal_width", data=iris,palette='rainbow')
```

Out[54]:

```
<matplotlib.axes._subplots.AxesSubplot at 0x2a062e83e80>
```

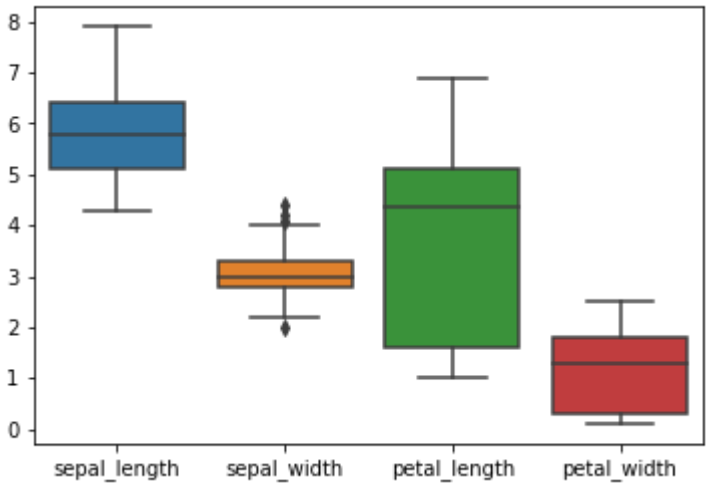


In [55]:

```
sns.boxplot(data=iris,orient='v')
```

Out[55]:

```
<matplotlib.axes._subplots.AxesSubplot at 0x2a05f935080>
```

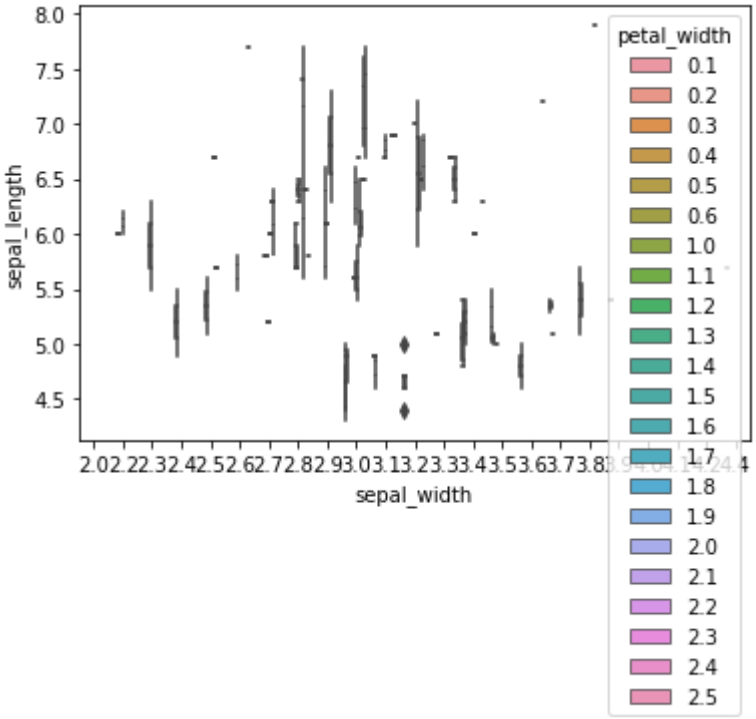


In [56]:

```
sns.boxplot(x="sepal_width", y="sepal_length", hue="petal_width",data=iris)
```

Out[56]:

```
<matplotlib.axes._subplots.AxesSubplot at 0x2a05fa26240>
```

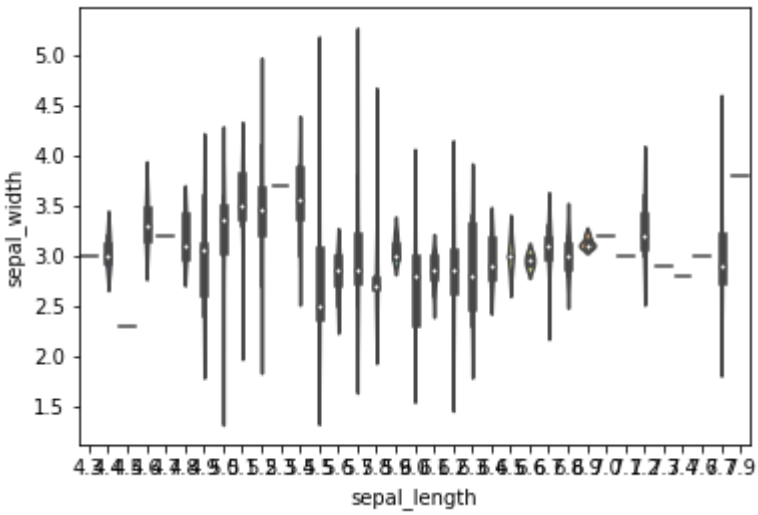


In [57]:

```
sns.violinplot(x="sepal_length", y="sepal_width", data=iris,palette='rainbow')
```

Out[57]:

```
<matplotlib.axes._subplots.AxesSubplot at 0x2a064a33390>
```



In [ ]:

```
```