In [1]:
```python
import pandas as pd
```

In [6]:
```python
df=pd.read_excel(r"C:\Users\admin\Desktop\abc.xlsx")
df
```

Out[6]:

	sr.no	name	age	city	sex
0	1	a	4	pune	M
1	2	b	10	mumbai	M
2	3	c	20	thane	F
3	4	d	12	kalyan	M
4	5	e	16	junnar	F
5	6	f	33	khed	F
6	7	g	26	chakan	M
7	8	h	23	talegoan	F
8	9	i	14	lonawala	M
9	10	j	13	otur	M
10	11	k	21	junnar	F
11	12	l	20	hinjawadi	F
12	13	m	12	bhosari	M
13	14	n	10	pinpari	M
14	15	o	9	aakurdi	F

In [9]:
```python
import seaborn as sns

sns.boxplot(x=df["age"])
```

Out[9]: <Axes: xlabel='age'>
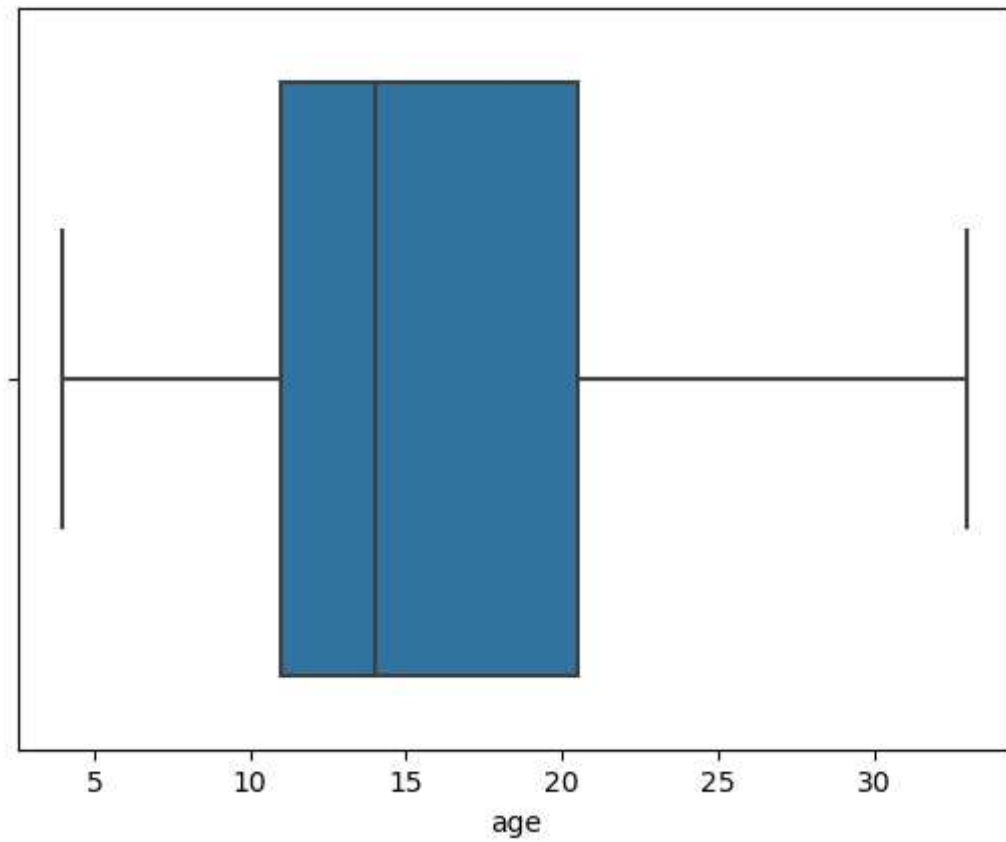
```python
In [11]:  import matplotlib.pyplot as plt
          import seaborn as sns


          sns.distplot([0,1,2,3,4,5,6])
```

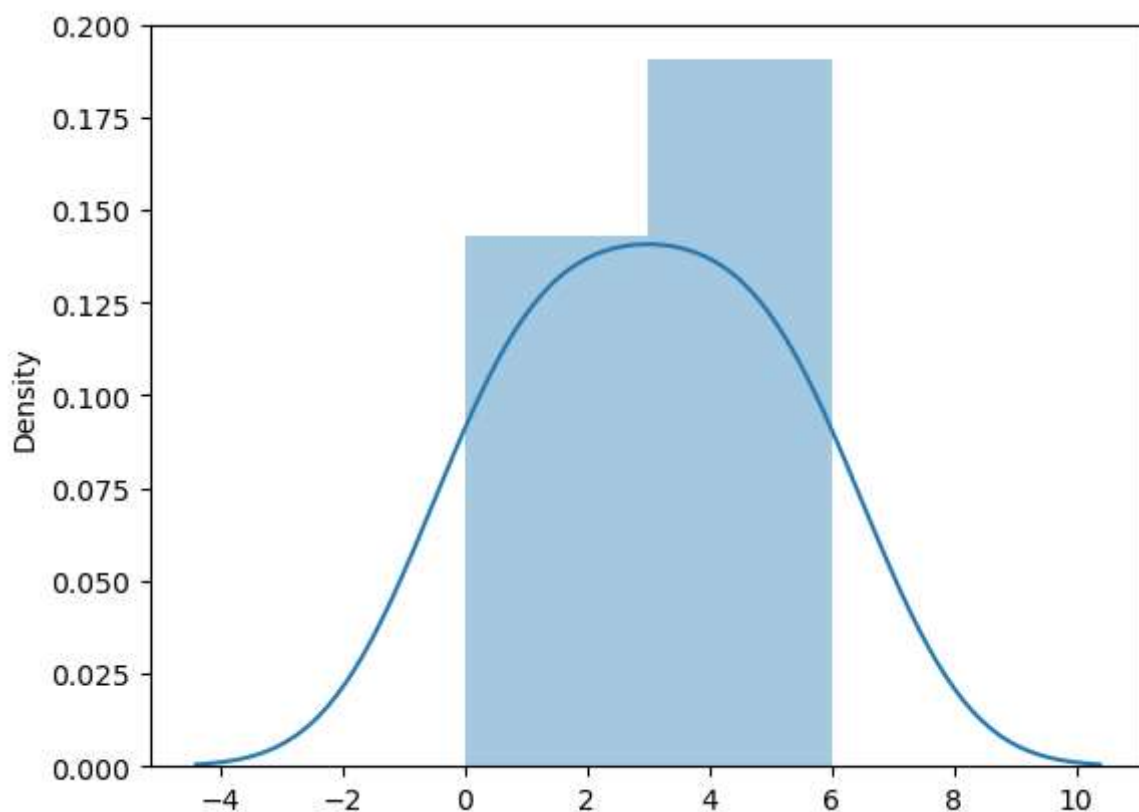C:\Users\admin\AppData\Local\Temp\ipykernel_1920\2981748360.py:5: UserWarnin
g:

`distplot` is a deprecated function and will be removed in seaborn v0.14.0.

Please adapt your code to use either `displot` (a figure-level function with
similar flexibility) or `histplot` (an axes-level function for histograms).

For a guide to updating your code to use the new functions, please see
https://gist.github.com/mwaskom/de44147ed2974457ad6372750bbe5751 (https://gis
t.github.com/mwaskom/de44147ed2974457ad6372750bbe5751)

  sns.distplot([0,1,2,3,4,5,6])

Out[11]: <Axes: ylabel='Density'>

In [14]:
```python
import pandas as pd
import numpy as np

df=pd.read_excel(r"C:\Users\admin\Desktop\abc.xlsx")
df

pd.crosstab(index=df["age"],columns=df["sex"])
```

Out[14]:

sex	F	M
age		
4	0	1
9	1	0
10	0	2
12	0	2
13	0	1
14	0	1
16	1	0
20	2	0
21	1	0
23	1	0
26	0	1
33	1	0

In [2]:
```python
#crosstabulation


import pandas as pd
import numpy as np


var=pd.read_excel(r"C:\Users\admin\Desktop\xyz.xlsx")
var

pd.crosstab(index=var['Age Group'],columns=var['sex'])
```

Out[2]:

sex	F	M
Age Group		
middle	2	1
old	3	0
young	2	3

In [5]:
```python
import matplotlib.pyplot as sns
import seaborn as sns
import pandas as pd
```

In [19]:
```python
#dataset load

var=sns.load_dataset("iris").head()
var
```

Out[19]:

	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 [20]:
```python
#correlation matrix

cor_mat=var.corr()
cor_mat
```

```
C:\Users\admin\AppData\Local\Temp\ipykernel_8320\55467275.py:3: FutureWarnin
g: The default value of numeric_only in DataFrame.corr is deprecated. In a fu
ture version, it will default to False. Select only valid columns or specify
the value of numeric_only to silence this warning.
  cor_mat=var.corr()
```
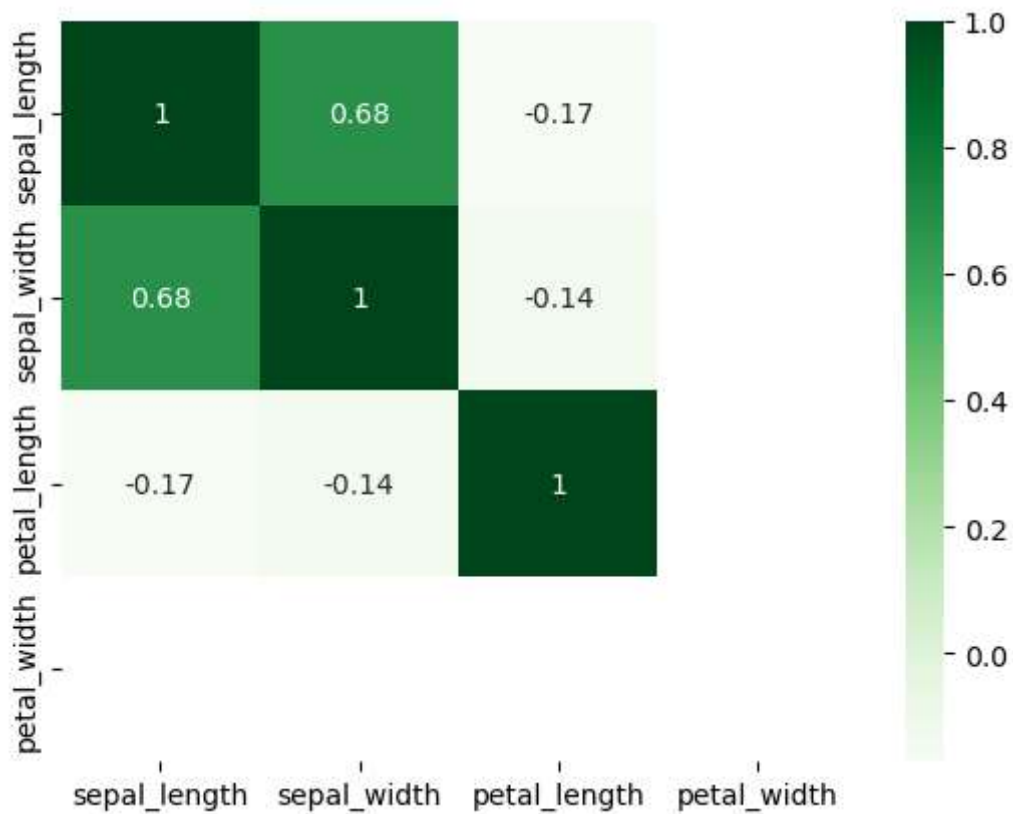
Out[20]:

|	sepal_length	sepal_width	petal_length	petal_width
sepal_length	1.000000	0.680019	-0.170499	NaN
sepal_width	0.680019	1.000000	-0.136590	NaN
petal_length	-0.170499	-0.136590	1.000000	NaN
petal_width	NaN	NaN	NaN	NaN

In [21]: `#heatmap in corelation matrix`

`sns.heatmap(cor_mat,cmap="Greens",annot=True)`

Out[21]: `<Axes: >`

In [40]:
```python
var=sns.load_dataset("iris")
var

sns.histplot(var,x="sepal_length")
```

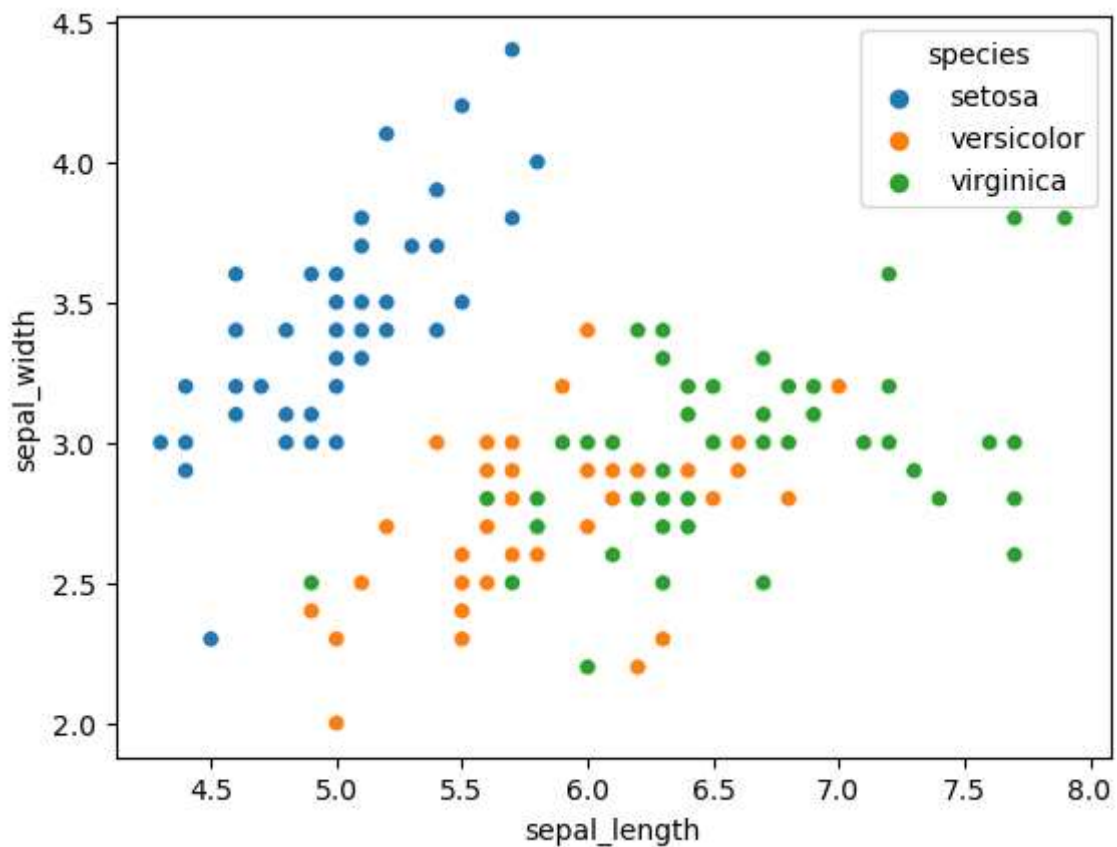Out[40]: <Axes: xlabel='sepal_length', ylabel='Count'>
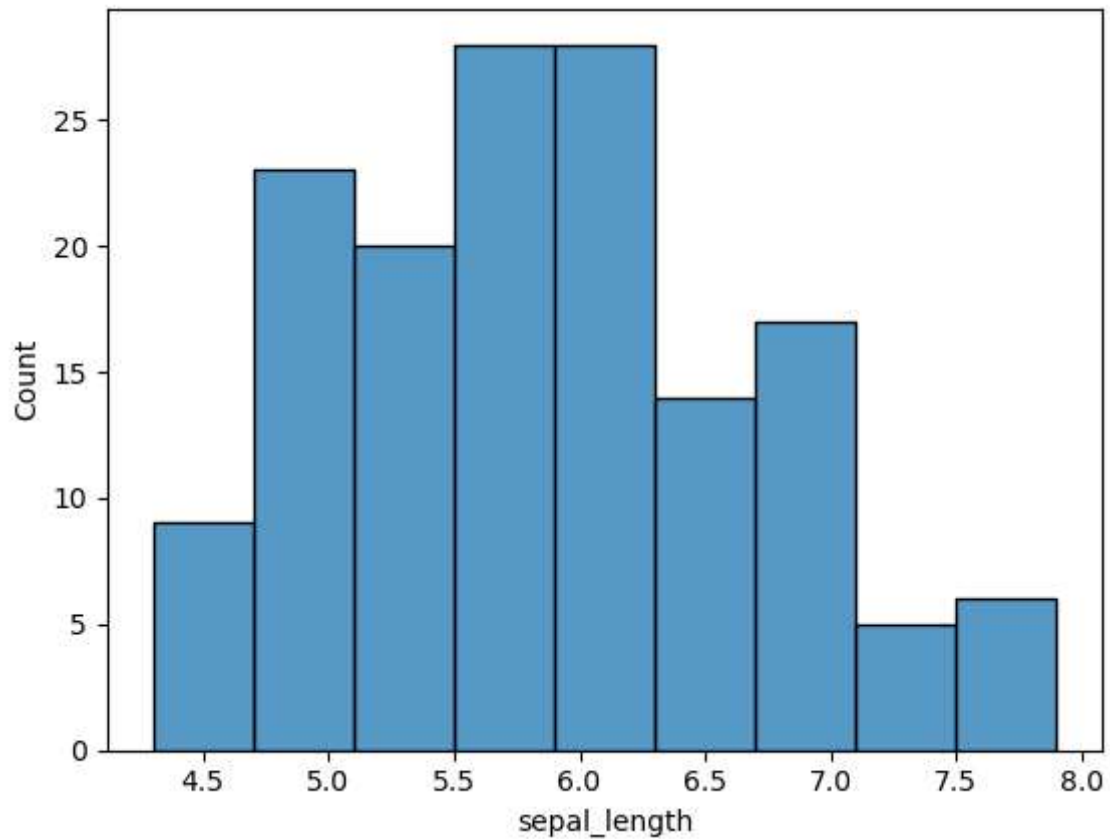
In [28]:
```python
import pandas as pd
import matplotlib.pyplot as sns
import seaborn as sns

#loading dataset
var=sns.load_dataset("iris")
var

#bivariate analysis
sns.scatterplot(x="sepal_length",y="sepal_width",data=var,hue="species")
```
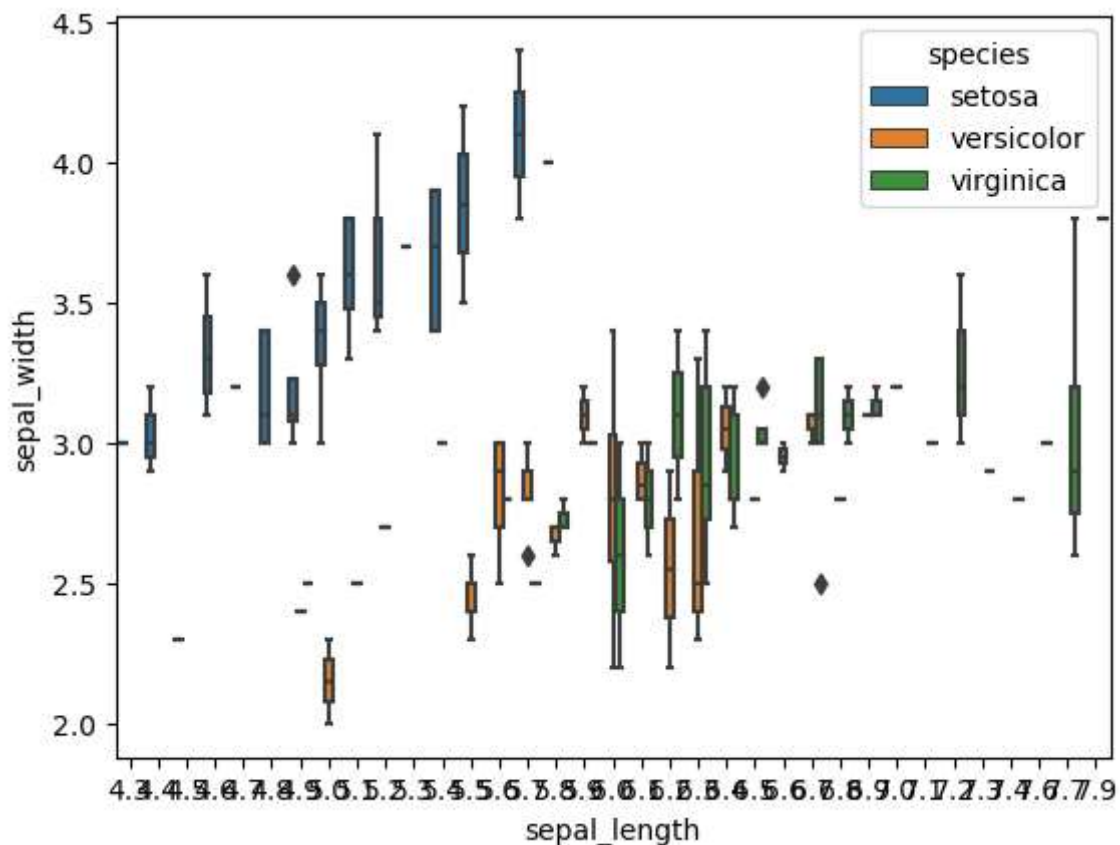
Out[28]: <Axes: xlabel='sepal_length', ylabel='sepal_width'>

In [33]:
```python
import pandas as pd
import matplotlib.pyplot as sns
import seaborn as sns

#loading dataset
var=sns.load_dataset("iris").head(190)
var

#bivariate analysis
sns.boxplot(x="sepal_length",y="sepal_width",data=var,hue="species")
```
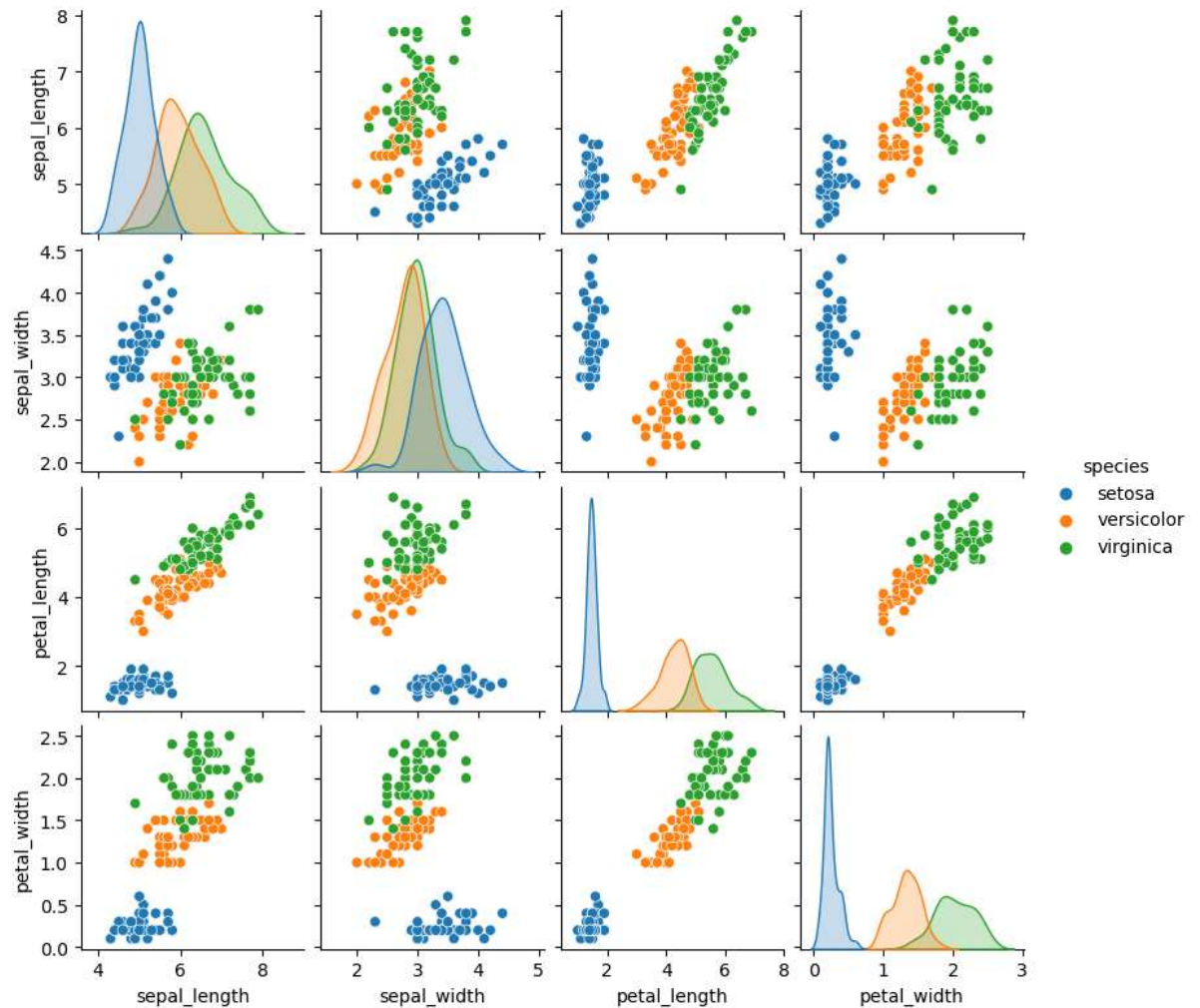
Out[33]: <Axes: xlabel='sepal_length', ylabel='sepal_width'>

In [38]:
```python
import pandas as pd
import matplotlib.pyplot as sns
import seaborn as sns

#loading dataset
var=sns.load_dataset("iris")
var

#bivariate analysis
sns.pairplot(data=var,hue="species",height=2)
```

Out[38]: <seaborn.axisgrid.PairGrid at 0x17f92d56c10>

In [3]:
```python
import pandas as pd
import matplotlib.pyplot as sns


data=pd.read_excel(r"C:\Users\admin\Desktop\data.xlsx")
```

In [4]:
```python
import pandas as pd
import matplotlib.pyplot as plt

var=pd.read_excel(r"C:\Users\admin\Desktop\data.xlsx")
var
```

Out[4]:

	sr.no	name	marks
0	1	a	15
1	2	b	13
2	3	c	18
3	4	d	14
4	5	e	12
5	6	f	14
6	7	g	19

In [19]:
```python
#univariate data


import pandas as pd
import matplotlib.pyplot as plt

data=pd.read_excel(r"C:\Users\admin\Desktop\data.xlsx")


vari=data["marks"]
#nongraphical univariate analysis
mean=vari.mean()
median=vari.median()
std=vari.std()

print("mean",mean)
print("median",median)
print("std",std)

# graphical univarite analysis
plt.hist(vari,bins=5)
plt.xlabel("vari")
plt.ylabel("frequency")
plt.title("Univariate Analysis")
plt.show()
```
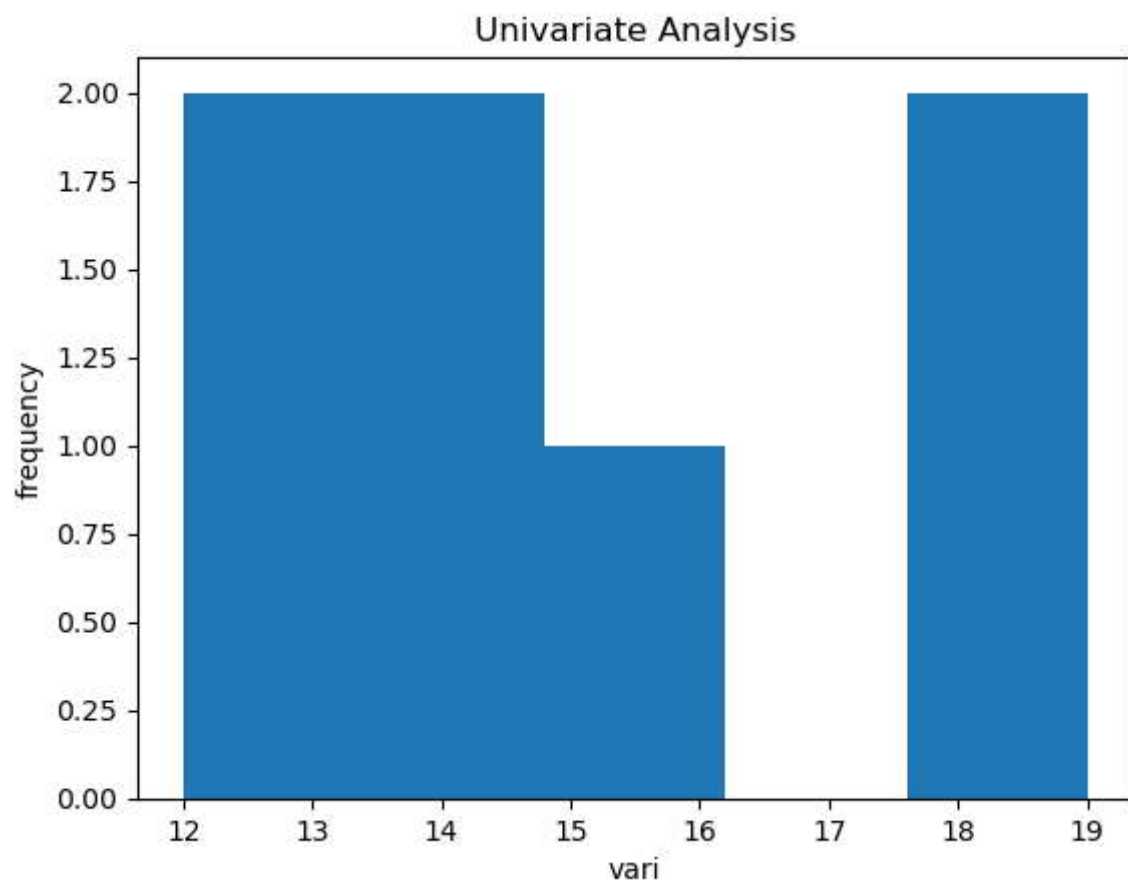
```
mean 15.0
median 14.0
std 2.581988897471611
```

In [15]:
```python
import statistics

data=[15,13,18,14,12,14,19]

mean=statistics.mean(data)
median=statistics.median(data)
mode=statistics.mode(data)


print(mean)
print(median)
print(mode)
```

```
15
14
14
```

In [ ]: