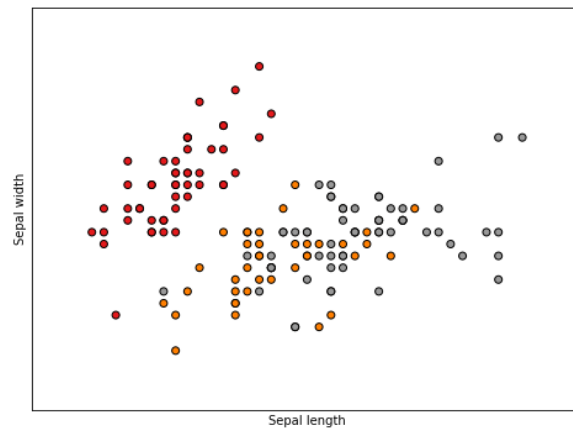


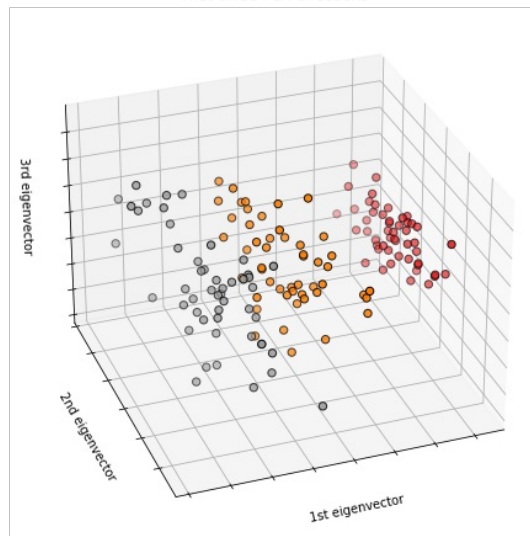
```

/var/folders/ n/npbqg_0d6cvcz42fb9862sy00000gn/T/ipykernel_13518/3322711061.py:32: MatplotlibDeprecationWarning: A
xes3D(fig) adding itself to the figure is deprecated since 3.4. Pass the keyword argument
auto_add_to_figure=False and use fig.add_axes(ax) to suppress this warning. The default value of
auto_add_to_figure will change to False in mpl3.5 and True values will no longer work in 3.6. This is consistent
with other Axes classes.
ax = Axes3D(fig, elev=-150, azimuth=110)

```



First three PCA directions



	sepal length (cm)	sepal width (cm)	petal length (cm)	petal width (cm)
0	5.1	3.5	1.4	0.2
1	4.9	3.0	1.4	0.2
2	4.7	3.2	1.3	0.2
3	4.6	3.1	1.5	0.2
4	5.0	3.6	1.4	0.2

	sepal length (cm)	sepal width (cm)	petal length (cm)	petal width (cm)	sepal length (cm)	sepal width (cm)	petal length (cm)	petal width (cm)	sepal length (cm)	sepal width (cm)	petal length (cm)	petal width (cm)
0	5.1	3.5	1.4	0.2	5.1	3.5	1.4	0.2	5.1	3.5	1.4	0.2
1	4.9	3.0	1.4	0.2	4.9	3.0	1.4	0.2	4.9	3.0	1.4	0.2
2	4.7	3.2	1.3	0.2	4.7	3.2	1.3	0.2	4.7	3.2	1.3	0.2
3	4.6	3.1	1.5	0.2	4.6	3.1	1.5	0.2	4.6	3.1	1.5	0.2
4	5.0	3.6	1.4	0.2	5.0	3.6	1.4	0.2	5.0	3.6	1.4	0.2

[NbConvertApp] Converting notebook Untitled.ipynb to html  
[NbConvertApp] Writing 417156 bytes to Untitled.html

True