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```
In [2]: import pandas as pd
import matplotlib.pyplot as plt
import numpy as np
iris = pd.read_csv("IRIS.csv")
```

## In [3]: print(iris.head())

	sepal_length	sepal_width	petal_length	petal_width	speci
es					
0	5.1	3.5	1.4	0.2	Iris-seto
sa		2.0			<b>-</b>
1	4.9	3.0	1.4	0.2	Iris-seto
sa	4 =	2.2	4.5		<b>-</b>
2	4.7	3.2	1.3	0.2	Iris-seto
sa		2.4	4 -		<b>-</b>
3	4.6	3.1	1.5	0.2	Iris-seto
sa					
4	5.0	3.6	1.4	0.2	Iris-seto
sa					

## In [4]: print(iris.describe())

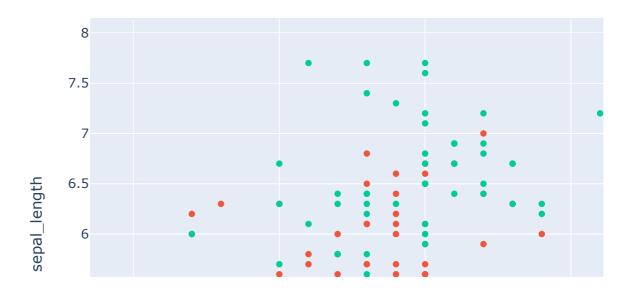
	sepal_length	sepal_width	petal_length	petal_width
count	150.000000	150.000000	150.000000	150.000000
mean	5.843333	3.054000	3.758667	1.198667
std	0.828066	0.433594	1.764420	0.763161
min	4.300000	2.000000	1.000000	0.100000
25%	5.100000	2.800000	1.600000	0.300000
50%	5.800000	3.000000	4.350000	1.300000
75%	6.400000	3.300000	5.100000	1.800000
max	7.900000	4.400000	6.900000	2.500000

## In [5]: print("Target Labels", iris["species"].unique())

Target Labels ['Iris-setosa' 'Iris-versicolor' 'Iris-virginica']

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```
In [6]: import plotly.express as px
fig = px.scatter(iris, x="sepal_width", y="sepal_length", color="sp
fig.show()
```



▶ KNeighbor\$Classifier

Out[7]:

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```
In [9]: x_new = np.array([[5, 2.9, 1, 0.2]])
    prediction = knn.predict(x_new)
    print("Prediction: {}".format(prediction))
```

Prediction: ['Iris-setosa']

/Users/amjaf/anaconda3/lib/python3.11/site-packages/sklearn/base.p y:439: UserWarning:

X does not have valid feature names, but KNeighborsClassifier was fitted with feature names

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