Exploratory Data Analysis on Iris Dataset

In [2]:
```
import pandas as pd
import numpy as py
import seaborn as sn
import os
from matplotlib import pyplot as plt
```

Import our Dataset "Iris"

In [4]:
```
iris=pd.read_csv("C:/Users/Sanayak/Desktop/Iris.csv")
```

In [5]:
```
iris.describe()
```

Out[5]:

	Id	SepalLengthCm	SepalWidthCm	PetalLengthCm	PetalWidthCm
count	150.000000	150.000000	150.000000	150.000000	150.000000
mean	75.500000	5.843333	3.054000	3.758667	1.198667
std	43.445368	0.828066	0.433594	1.764420	0.763161
min	1.000000	4.300000	2.000000	1.000000	0.100000
25%	38.250000	5.100000	2.800000	1.600000	0.300000
50%	75.500000	5.800000	3.000000	4.350000	1.300000
75%	112.750000	6.400000	3.300000	5.100000	1.800000
max	150.000000	7.900000	4.400000	6.900000	2.500000

The Dataset does not contain missing values

In [7]:
```
iris.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 150 entries, 0 to 149
Data columns (total 6 columns):
 #   Column         Non-Null Count  Dtype  
---  ------         --------------  -----  
 0   Id             150 non-null    int64  
 1   SepalLengthCm  150 non-null    float64
 2   SepalWidthCm   150 non-null    float64
 3   PetalLengthCm  150 non-null    float64
 4   PetalWidthCm   150 non-null    float64
 5   Species        150 non-null    object 
dtypes: float64(4), int64(1), object(1)
memory usage: 7.2+ KB
```

In [8]:
```
iris.head()
```

Out[8]:

	Id	SepalLengthCm	SepalWidthCm	PetalLengthCm	PetalWidthCm	Species
0	1	5.1	3.5	1.4	0.2	Iris-setosa
1	2	4.9	3.0	1.4	0.2	Iris-setosa
2	3	4.7	3.2	1.3	0.2	Iris-setosa
3	4	4.6	3.1	1.5	0.2	Iris-setosa
4	5	5.0	3.6	1.4	0.2	Iris-setosa

In [11]:
```
del iris["Id"]
```

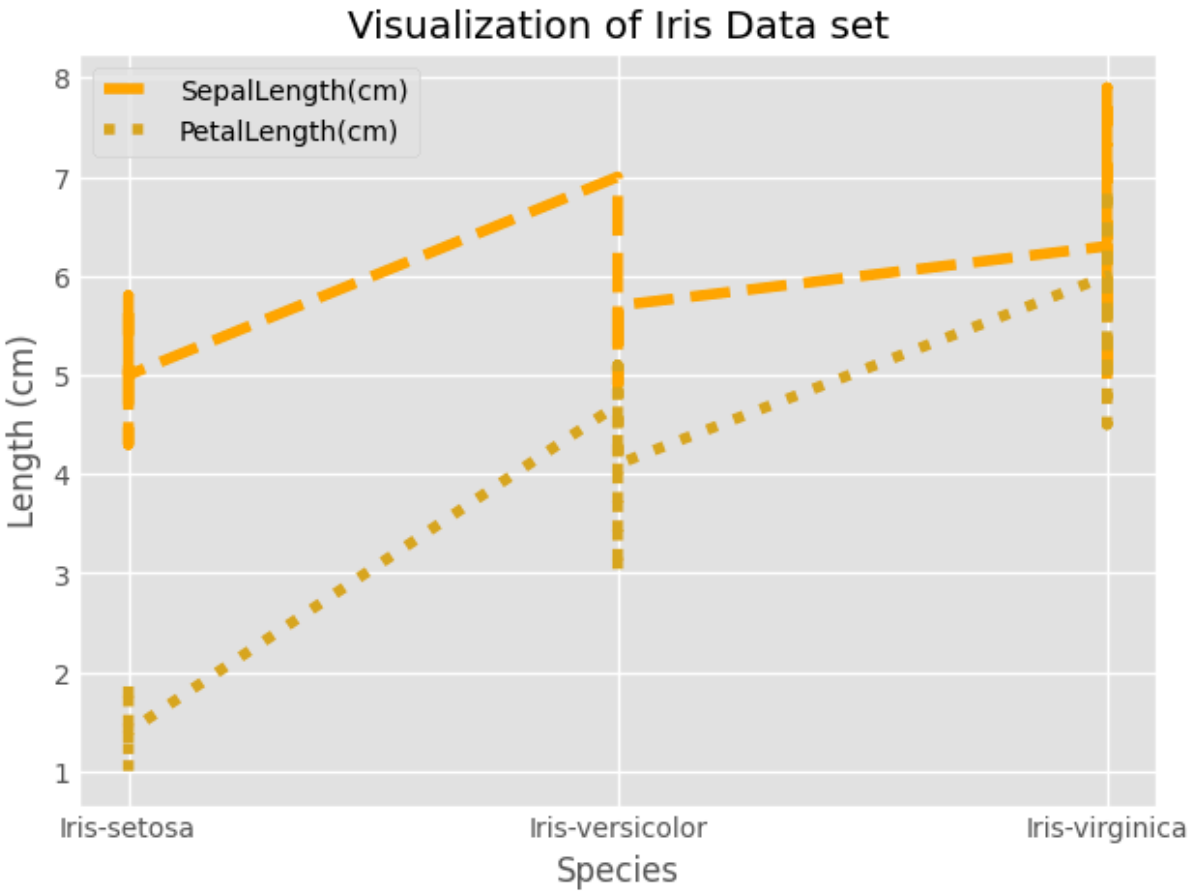
In [18]:
```
iris.head()
```

Out[18]:

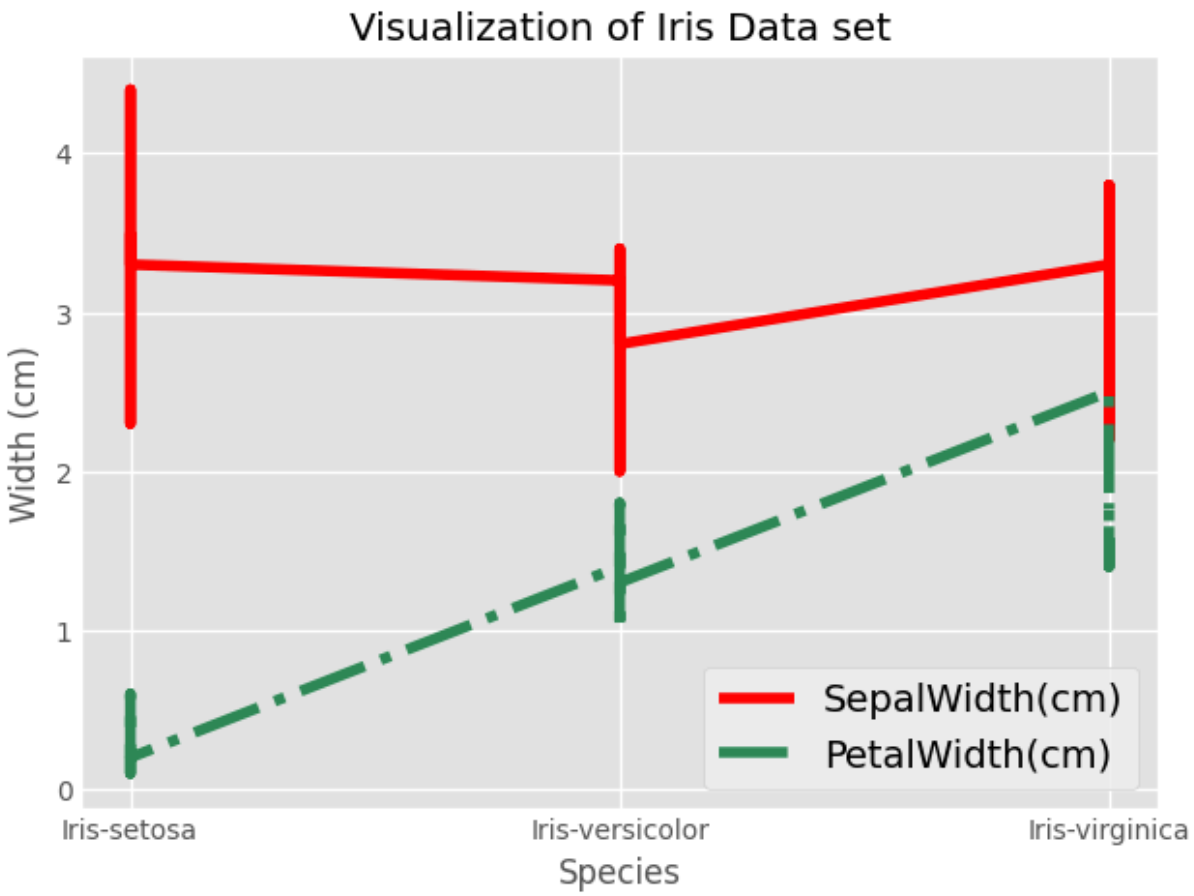
	SepalLengthCm	SepalWidthCm	PetalLengthCm	PetalWidthCm	Species
0	5.1	3.5	1.4	0.2	Iris-setosa
1	4.9	3.0	1.4	0.2	Iris-setosa
2	4.7	3.2	1.3	0.2	Iris-setosa
3	4.6	3.1	1.5	0.2	Iris-setosa
4	5.0	3.6	1.4	0.2	Iris-setosa

Visualization of Iris Dataset

In [28]:
```
plt.plot(iris.Species, iris.SepalLengthCm, label="SepalLength(cm)",color="orange",
plt.plot(iris.Species, iris.PetalLengthCm, label="PetalLength(cm)",color="goldenrod
plt.xlabel("Species")
plt.ylabel("Length (cm)")
plt.title("Visualization of Iris Data set")
plt.style.use("ggplot")
plt.legend()
plt.show()
```



In [29]:
```
plt.plot(iris.Species, iris.SepalWidthCm, label="SepalWidth(cm)",color="red",linest
plt.plot(iris.Species, iris.PetalWidthCm, label="PetalWidth(cm)",color="seagreen",l
plt.xlabel("Species")
plt.ylabel("Width (cm)")
plt.title("Visualization of Iris Data set")
plt.style.use("fivethirtyeight")
plt.legend()
plt.show()
```


Visualization of Iris Data set
Width (cm)
0
1
2
3
4
Iris-setosa
Iris-versicolor
Iris-virginica
Species
SepalWidth(cm)
PetalWidth(cm)

In [ ]: