In [6]:

```
import requests
import requests
import numpy as np
import pandas as pd
import seaborn as sns
import matplotlib.pyplot as plt
from warnings import filterwarnings
filterwarnings('ignore')
data_url=pd.read_csv(r"C:\Users\Dell\Downloads\archive (2)\Iris.csv")
```

In [9]:

```
data_url.head()
```

Out[9]:

	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 [18]:

```
data_url.shape
```

Out[18]:

```
(150, 6)
```

In [19]:

```
data_url.columns
```

Out[19]:

```
Index(['Id', 'SepalLengthCm', 'SepalWidthCm', 'PetalLengthCm', 'PetalWidthC
m',
       'Species'],
      dtype='object')
```

In [20]:

```
data_url.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 [21]:

```
data_url.count()
```

Out[21]:

```
Id               150
SepalLengthCm    150
SepalWidthCm     150
PetalLengthCm    150
PetalWidthCm     150
Species          150
dtype: int64
```

In [22]:

```
data_url.groupby('Species').size()
```

Out[22]:

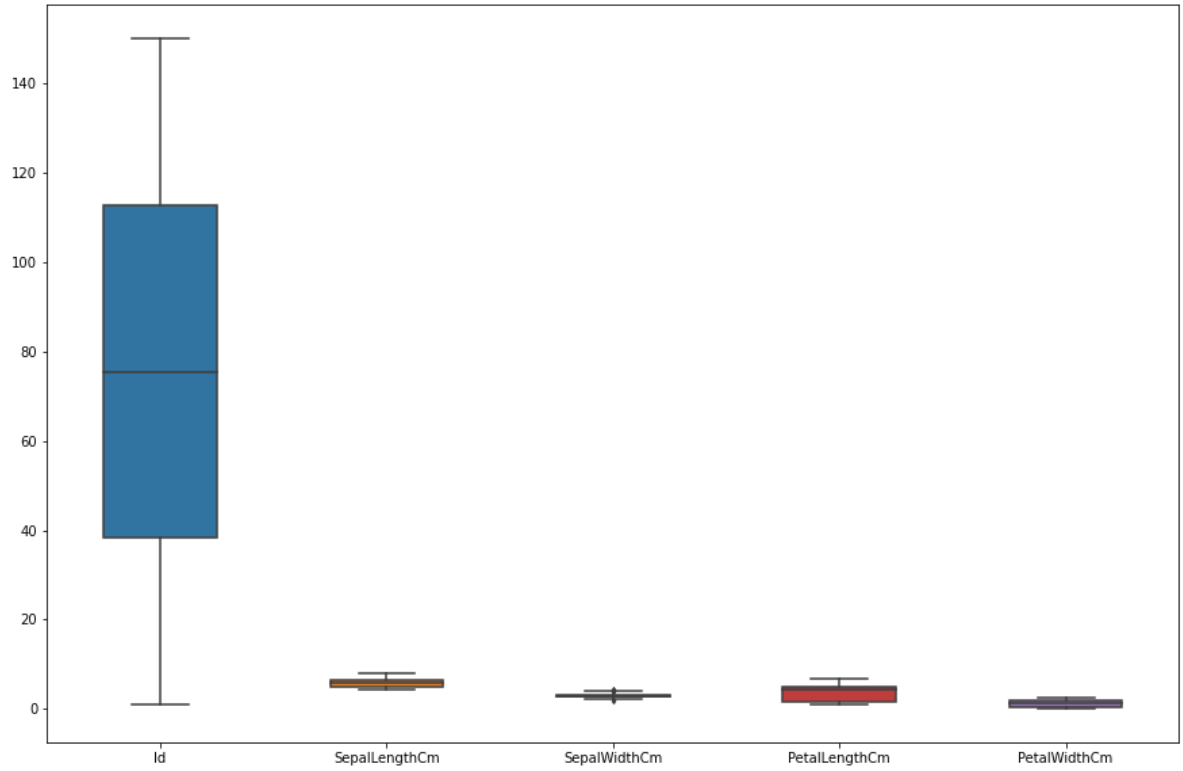
```
Species
Iris-setosa        50
Iris-versicolor    50
Iris-virginica     50
dtype: int64
```

In [29]:

```
fig,ax=plt.subplots(figsize=(15,10))
sns.boxplot(data=data_url,width=0.5,ax=ax,  fliersize=3)
```

Out[29]:

<AxesSubplot:>

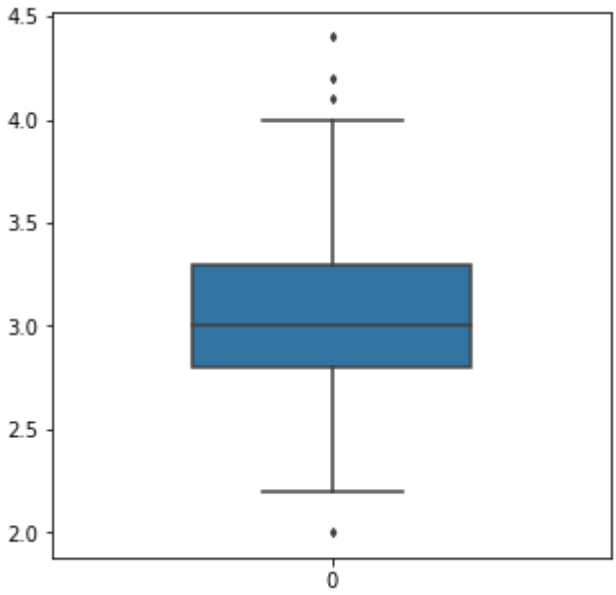


In [27]:

```
fig,ax =plt.subplots(figsize=(5,5))
sns.boxplot(data=data_url["SepalWidthCm"],width=0.5,ax=ax,fliersize=3)
```

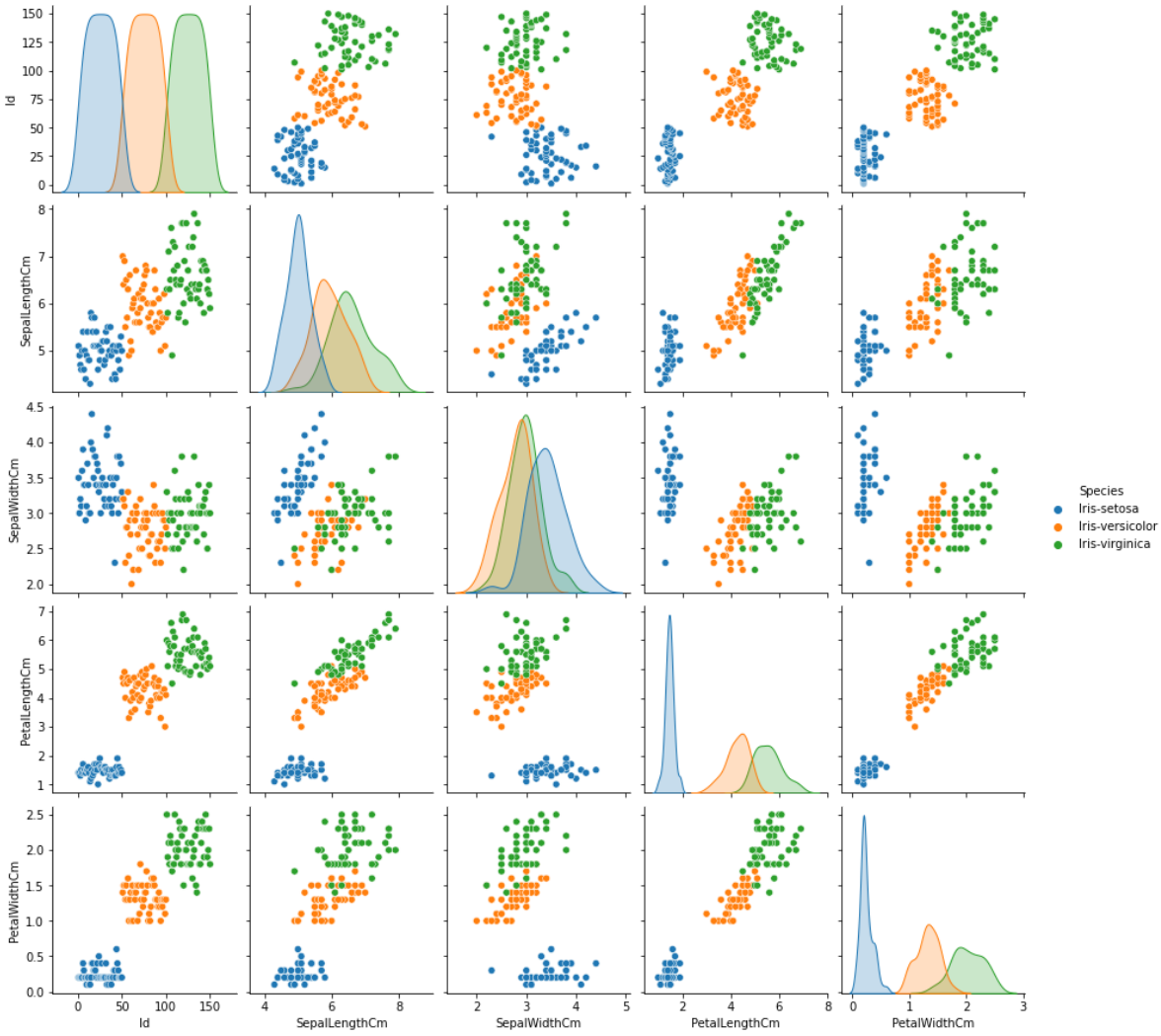
Out[27]:

<AxesSubplot:>



In [31]:

```
sns.pairplot(data=data_url,hue="Species")
plt.show()
```



In [32]:

```
data_url.corr()
```

Out[32]:

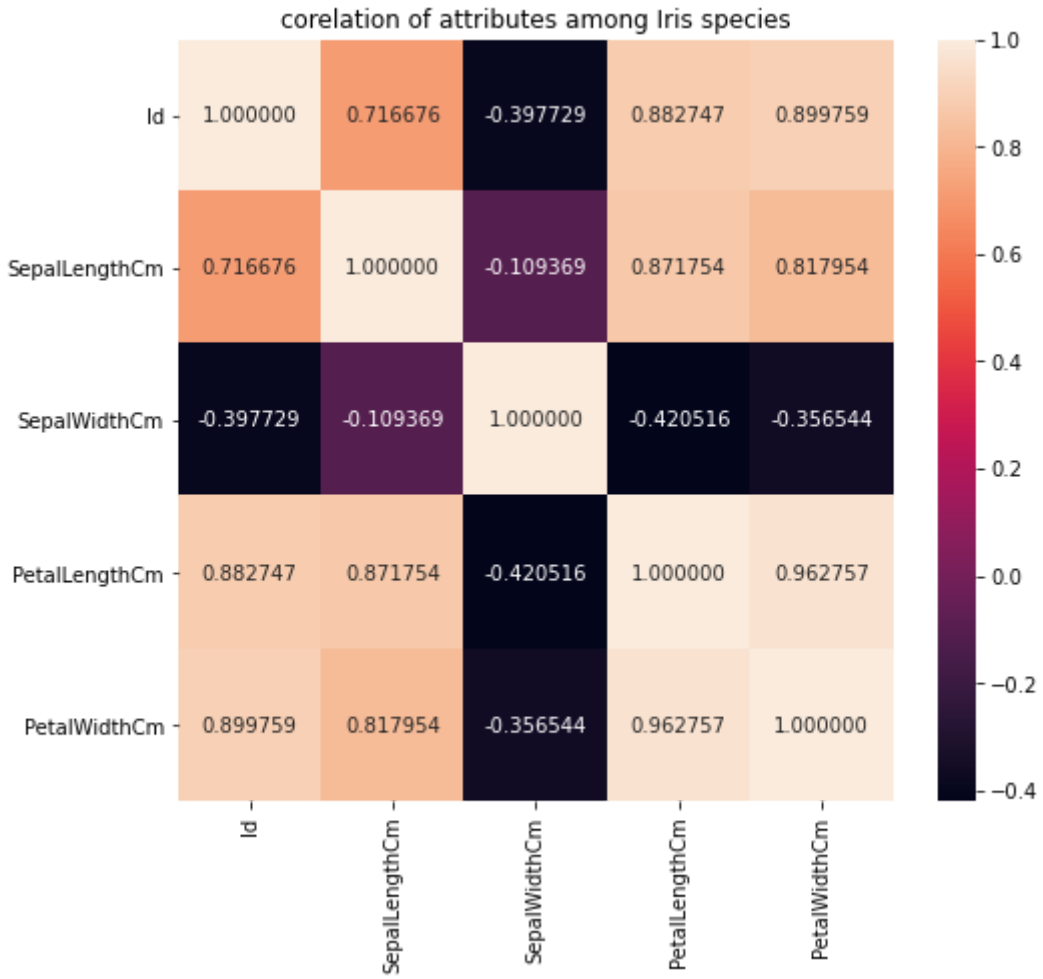
	Id	SepalLengthCm	SepalWidthCm	PetalLengthCm	PetalWidthCm
Id	1.000000	0.716676	-0.397729	0.882747	0.899759
SepalLengthCm	0.716676	1.000000	-0.109369	0.871754	0.817954
SepalWidthCm	-0.397729	-0.109369	1.000000	-0.420516	-0.356544
PetalLengthCm	0.882747	0.871754	-0.420516	1.000000	0.962757
PetalWidthCm	0.899759	0.817954	-0.356544	0.962757	1.000000

In [34]:

```
plt.subplots(figsize=(8,7))
sns.heatmap(data_url.corr(),annot=True,fmt="f").set_title("corelation of attributes among I
```

Out[34]:

```
Text(0.5, 1.0, 'corelation of attributes among Iris species')
```

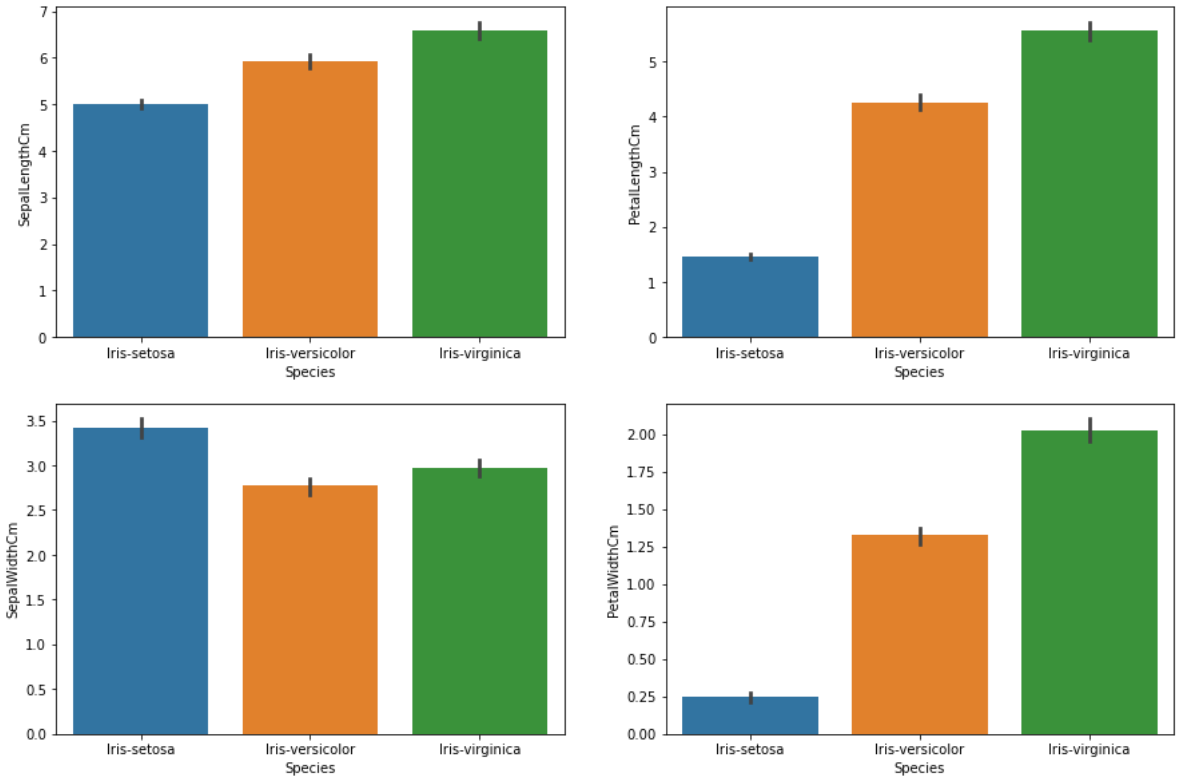


In [42]:

```
plt.figure(figsize=(15,10))
plt.subplot(2,2,1)
sns.barplot(x='Species',y='SepalLengthCm',data=data_url)
plt.subplot(2,2,2)
sns.barplot(x='Species',y='PetalLengthCm',data=data_url)
plt.subplot(2,2,3)
sns.barplot(x='Species',y='SepalWidthCm',data=data_url)
plt.subplot(2,2,4)
sns.barplot(x='Species',y='PetalWidthCm',data=data_url)
```

Out[42]:

```
<AxesSubplot:xlabel='Species', ylabel='PetalWidthCm'>
```



In [ ]:

In [ ]:

In [ ]:

In [ ]: