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

In [2]:
```
df = pd.read_csv("Iris.csv")
```

In [3]:
```
print(df)
```

```
     Id  SepalLengthCm  SepalWidthCm  PetalLengthCm  PetalWidthCm  \
0     1            5.1           3.5            1.4           0.2
1     2            4.9           3.0            1.4           0.2
2     3            4.7           3.2            1.3           0.2
3     4            4.6           3.1            1.5           0.2
4     5            5.0           3.6            1.4           0.2
..  ...            ...           ...            ...           ...
145  146            6.7           3.0            5.2           2.3
146  147            6.3           2.5            5.0           1.9
147  148            6.5           3.0            5.2           2.0
148  149            6.2           3.4            5.4           2.3
149  150            5.9           3.0            5.1           1.8

            Species
0       Iris-setosa
1       Iris-setosa
2       Iris-setosa
3       Iris-setosa
4       Iris-setosa
..              ...
145  Iris-virginica
146  Iris-virginica
147  Iris-virginica
148  Iris-virginica
149  Iris-virginica

[150 rows x 6 columns]
```

In [4]:
```
df.describe()
```

Out[4]:

	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

In [5]:
```
df.head()
```

Out[5]:

	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 [6]:
```
df.tail()
```

Out[6]:

	Id	SepalLengthCm	SepalWidthCm	PetalLengthCm	PetalWidthCm	Species
145	146	6.7	3.0	5.2	2.3	Iris-virginica
146	147	6.3	2.5	5.0	1.9	Iris-virginica
147	148	6.5	3.0	5.2	2.0	Iris-virginica
148	149	6.2	3.4	5.4	2.3	Iris-virginica
149	150	5.9	3.0	5.1	1.8	Iris-virginica

In [7]:
```
df.shape
```

Out[7]:
```
(150, 6)
```

In [8]:
```
df.size
```

Out[8]:
```
900
```

In [9]:
```
df.isnull()
```

Out[9]:

	Id	SepalLengthCm	SepalWidthCm	PetalLengthCm	PetalWidthCm	Species
0	False	False	False	False	False	False
1	False	False	False	False	False	False
2	False	False	False	False	False	False
3	False	False	False	False	False	False
4	False	False	False	False	False	False
...	...	...	...	...	...	...
145	False	False	False	False	False	False
146	False	False	False	False	False	False
147	False	False	False	False	False	False
148	False	False	False	False	False	False
149	False	False	False	False	False	False

150 rows × 6 columns

In [10]:
```
df.ndim
```

Out[10]: 2

In [11]:
```
df["Species"].dtype
```

Out[11]: dtype('O')

In [12]:
```
dummies = pd.get_dummies(df.Species)
```

In [13]:
```
print(dummies)
```

```
     Iris-setosa  Iris-versicolor  Iris-virginica
0              1                0               0
1              1                0               0
2              1                0               0
3              1                0               0
4              1                0               0
..           ...              ...             ...
145            0                0               1
146            0                0               1
147            0                0               1
148            0                0               1
149            0                0               1

[150 rows x 3 columns]
```

In [15]:
```
merged = pd.concat([df, dummies], axis='columns')
```

In [16]:
```
merged
```

Out[16]:

	Id	SepalLengthCm	SepalWidthCm	PetalLengthCm	PetalWidthCm	Species	Iris-setosa
0	1	5.1	3.5	1.4	0.2	Iris-setosa	1
1	2	4.9	3.0	1.4	0.2	Iris-setosa	1
2	3	4.7	3.2	1.3	0.2	Iris-setosa	1
3	4	4.6	3.1	1.5	0.2	Iris-setosa	1
4	5	5.0	3.6	1.4	0.2	Iris-setosa	1
...	...	...	...	...	...	...	...
145	146	6.7	3.0	5.2	2.3	Iris-virginica	0
146	147	6.3	2.5	5.0	1.9	Iris-virginica	0
147	148	6.5	3.0	5.2	2.0	Iris-virginica	0
148	149	6.2	3.4	5.4	2.3	Iris-virginica	0
149	150	5.9	3.0	5.1	1.8	Iris-virginica	0

150 rows × 9 columns

In [ ]: