

```
import pandas as pd
```

```
df=pd.read_csv("iris.csv")
```

```
df.head(2)
```

	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

```
df.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
```

```
df.describe()
```

	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

```
df.shape
```

```
(150, 6)
```

```
df.dtypes
```

```
Id                int64
SepalLengthCm     float64
SepalWidthCm      float64
PetalLengthCm     float64
PetalWidthCm      float64
Species           object
dtype: object
```

```
# Filter data for each species
```

```
setosa_data = df[df['Species'] == 'Iris-setosa']
versicolor_data = df[df['Species'] == 'Iris-versicolor']
virginica_data = df[df['Species'] == 'Iris-virginica']
```

```
# Display the statistical details
```

```
print("Statistics for Iris-setosa:")
print(setosa_data.describe())
print("\nStatistics for Iris-versicolor:")
print(versicolor_data.describe())
print("\nStatistics for Iris-virginica:")
print(virginica_data.describe())
```

```
Statistics for Iris-setosa:
```

	Id	SepalLengthCm	SepalWidthCm	PetalLengthCm	PetalWidthCm
count	50.00000	50.00000	50.000000	50.000000	50.00000
mean	25.50000	5.00600	3.418000	1.464000	0.24400
std	14.57738	0.35249	0.381024	0.173511	0.10721
min	1.00000	4.30000	2.300000	1.000000	0.10000
25%	13.25000	4.80000	3.125000	1.400000	0.20000
50%	25.50000	5.00000	3.400000	1.500000	0.20000
75%	37.75000	5.20000	3.675000	1.575000	0.30000
max	50.00000	5.80000	4.400000	1.900000	0.60000

```
Statistics for Iris-versicolor:
```

	Id	SepalLengthCm	SepalWidthCm	PetalLengthCm	PetalWidthCm
count	50.00000	50.000000	50.000000	50.000000	50.000000

mean	75.50000	5.936000	2.770000	4.260000
1.326000				
std	14.57738	0.516171	0.313798	0.469911
0.197753				
min	51.00000	4.900000	2.000000	3.000000
1.000000				
25%	63.25000	5.600000	2.525000	4.000000
1.200000				
50%	75.50000	5.900000	2.800000	4.350000
1.300000				
75%	87.75000	6.300000	3.000000	4.600000
1.500000				
max	100.00000	7.000000	3.400000	5.100000
1.800000				

Statistics for Iris-virginica:

	Id	SepalLengthCm	SepalWidthCm	PetalLengthCm	PetalWidthCm
count	50.00000	50.00000	50.000000	50.000000	50.000000
50.00000					
mean	125.50000	6.58800	2.974000	5.552000	2.02600
2.02600					
std	14.57738	0.63588	0.322497	0.551895	0.27465
0.27465					
min	101.00000	4.90000	2.200000	4.500000	1.40000
1.40000					
25%	113.25000	6.22500	2.800000	5.100000	1.80000
1.80000					
50%	125.50000	6.50000	3.000000	5.550000	2.00000
2.00000					
75%	137.75000	6.90000	3.175000	5.875000	2.30000
2.30000					
max	150.00000	7.90000	3.800000	6.900000	2.50000
2.50000					