

10-new

May 7, 2025

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[8]: import pandas as pd
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[9]: df=pd.read_csv("E:\PICT 3rd\subject material\DSBDA Prep\Datasets\PICT_3rd\Datasets\iris.csv")
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[11]: df.tail()
```

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[11]:
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	sepal.length	sepal.width	petal.length	petal.width	variety
145	6.7	3.0	5.2	2.3	Virginica
146	6.3	2.5	5.0	1.9	Virginica
147	6.5	3.0	5.2	2.0	Virginica
148	6.2	3.4	5.4	2.3	Virginica
149	5.9	3.0	5.1	1.8	Virginica

```
[12]: setosa_df=df[df['variety']=='Setosa']  
virginica_df=df[df['variety']=='Virginica']
```

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[ ]:
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[15]: merged=pd.concat([setosa_df,virginica_df])
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[18]: sorted_df=df.sort_values('sepal.length')
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[19]: sorted_df.head()
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[19]:
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	sepal.length	sepal.width	petal.length	petal.width	variety
13	4.3	3.0	1.1	0.1	Setosa
42	4.4	3.2	1.3	0.2	Setosa
38	4.4	3.0	1.3	0.2	Setosa
8	4.4	2.9	1.4	0.2	Setosa
41	4.5	2.3	1.3	0.3	Setosa

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[20]: transposed=df.head(10).transpose()
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[21]: transposed.head(10)
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[21]:
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	0	1	2	3	4	5	6	7 \
sepal.length	5.1	4.9	4.7	4.6	5.0	5.4	4.6	5.0
sepal.width	3.5	3.0	3.2	3.1	3.6	3.9	3.4	3.4
petal.length	1.4	1.4	1.3	1.5	1.4	1.7	1.4	1.5
petal.width	0.2	0.2	0.2	0.2	0.2	0.4	0.3	0.2
variety	Setosa	Setosa	Setosa	Setosa	Setosa	Setosa	Setosa	Setosa

	8	9
sepal.length	4.4	4.9
sepal.width	2.9	3.1
petal.length	1.4	1.5
petal.width	0.2	0.1
variety	Setosa	Setosa

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[22]: melted=pd.melt(df,id_vars='variety',var_name='feature',value_name='value')
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[23]: melted.head()
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[23]:
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	variety	feature	value
0	Setosa	sepal.length	5.1
1	Setosa	sepal.length	4.9
2	Setosa	sepal.length	4.7
3	Setosa	sepal.length	4.6
4	Setosa	sepal.length	5.0

```
[24]: pivoted=melted.  
      ↪pivot_table(index=['variety'],columns='feature',values='value',aggfunc='mean')
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[25]: pivoted.head()
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[25]:
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feature	petal.length	petal.width	sepal.length	sepal.width
variety				
Setosa	1.462	0.246	5.006	3.428
Versicolor	4.260	1.326	5.936	2.770
Virginica	5.552	2.026	6.588	2.974

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