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localhost:8888/notebooks/vansh.adhana%20.ipynb

jupyter vansh.adhana Last Checkpoint: 6 minutes ago (unsaved changes)

File Edit View Insert Cell Kernel Widgets Help Trusted Python 3 (ipython)

Out[3]:

	Unnamed: 0	Unnamed: 1	Unnamed: 2	Unnamed: 3	Unnamed: 4	Unnamed: 5	Unnamed: 6	Unnamed: 7	Unnamed: 8	Unnamed: 9	Unnamed: 10	Unnamed: 11
0	NaN	Sepal Length (cm)	Sepal Width (cm)	Petal Length (cm)	Petal Width (cm)	Class	NaN	NaN	alpha	obj	NaN	NaN
1	NaN	7	3.2	4.7	1.4	Iris-versicolor	NaN	0.0	0	0	0.0	1.0
2	NaN	6.4	3.2	4.6	1.5	Iris-versicolor	NaN	0.0	NaN	NaN	0.0	1.0
3	NaN	6.9	3.1	4.9	1.5	Iris-versicolor	NaN	0.0	NaN	NaN	0.0	1.0
4	NaN	5.5	2.3	4	1.3	Iris-versicolor	NaN	0.0	NaN	NaN	0.0	1.0
5	NaN	6.5	2.8	4.6	1.5	Iris-versicolor	NaN	NaN	NaN	NaN	0.0	1.0
6	NaN	5.7	2.8	4.6	1.5	Iris-versicolor	NaN	NaN	NaN	NaN	0.0	1.0
7	NaN	6.3	3.3	4.7	1.6	Iris-versicolor	NaN	NaN	NaN	NaN	0.0	1.0

In [4]: df = pd.read_csv('iris.csv')
odd_numbered_rows = df.iloc[1::2]
shuffled_rows = odd_numbered_rows.sample(frac=1)
print(shuffled_rows)

	Unnamed: 0	Unnamed: 1	Unnamed: 2	Unnamed: 3	Unnamed: 4	Unnamed: 5	...
49	NaN	5.1	2.5	3	1.1	Iris-versicolor	
43	NaN	5.8	2.6	4	1.2	Iris-versicolor	
83	NaN	5.2	4.1	1.5	0.1	Iris-setosa	
63	NaN	4.8	3	1.4	0.1	Iris-setosa	



```
In [1]: from sklearn.datasets import load_iris
from sklearn.ensemble import RandomForestClassifier
import pandas as pd
import numpy as np
import matplotlib.pyplot as plt
import seaborn as sns
from sklearn.model_selection import train_test_split
from sklearn.preprocessing import StandardScaler
from sklearn.ensemble import RandomForestRegressor
from sklearn.metrics import mean_squared_error, r2_score
```

```
In [2]: df = pd.read_csv('iris.csv')
df.head()
```

Out[2]:

	Unnamed: 0	Unnamed: 1	Unnamed: 2	Unnamed: 3	Unnamed: 4	Unnamed: 5	Unnamed: 6	Unnamed: 7	Unnamed: 8	Unnamed: 9
0	NaN	Sepal Length (cm)	Sepal Width (cm)	Petal Length (cm)	Petal Width (cm)	Class	NaN	NaN	alpha	obj
1	NaN	7	3.2	4.7	1.4	Iris-versicolor	NaN	0.0	0	0
2	NaN	6.4	3.2	4.5	1.5	Iris-versicolor	NaN	0.0	NaN	NaN
3	NaN	6.9	3.1	4.9	1.5	Iris-versicolor	NaN	0.0	NaN	NaN
4	NaN	5.5	2.3	4	1.3	Iris-versicolor	NaN	0.0	NaN	NaN

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In [4]:

```
df = pd.read_csv('iris.csv')
odd_numbered_rows = df.iloc[1::2]
shuffled_rows = odd_numbered_rows.sample(frac=1)
print(shuffled_rows)
```

	Unnamed: 0	Unnamed: 1	Unnamed: 2	Unnamed: 3	Unnamed: 4	Unnamed: 5	\
49	NaN	5.1	2.5	3	1.1	Iris-versicolor	
43	NaN	5.8	2.6	4	1.2	Iris-versicolor	
83	NaN	5.2	4.1	1.5	0.1	Iris-setosa	
63	NaN	4.8	3	1.4	0.1	Iris-setosa	
23	NaN	6.3	2.5	4.9	1.5	Iris-versicolor	
99	NaN	5.3	3.7	1.5	0.2	Iris-setosa	
57	NaN	4.6	3.4	1.4	0.3	Iris-setosa	
71	NaN	5.4	3.4	1.7	0.2	Iris-setosa	
13	NaN	6	2.2	4	1	Iris-versicolor	
69	NaN	5.7	3.8	1.7	0.3	Iris-setosa	
1	NaN	7	3.2	4.7	1.4	Iris-versicolor	
41	NaN	5.5	2.6	4.4	1.2	Iris-versicolor	
95	NaN	5.1	3.8	1.9	0.4	Iris-setosa	
9	NaN	6.6	2.9	4.6	1.3	Iris-versicolor	
47	NaN	5.7	2.9	4.2	1.3	Iris-versicolor	
31	NaN	5.5	2.4	3.8	1.1	Iris-versicolor	
27	NaN	6.8	2.8	4.8	1.4	Iris-versicolor	
91	NaN	5	3.5	1.3	0.3	Iris-setosa	
59	NaN	4.4	2.9	1.4	0.2	Iris-setosa	
3	NaN	6.9	3.1	4.9	1.5	Iris-versicolor	
81	NaN	4.8	3.1	1.6	0.2	Iris-setosa	
87	NaN	5.5	3.5	1.3	0.2	Iris-setosa	
73	NaN	4.6	3.6	1	0.2	Iris-setosa	
51	NaN	5.1	3.5	1.4	0.2	Iris-setosa	
33	NaN	5.8	2.7	3.9	1.2	Iris-versicolor	
45	NaN	5.6	2.7	4.2	1.3	Iris-versicolor	
75	NaN	4.8	3.4	1.9	0.2	Iris-setosa	

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Notebook saved Trusted

Code

49	NaN	NaN	NaN	NaN	0.0	1.0
43	NaN	NaN	NaN	NaN	0.0	1.0
83	NaN	NaN	NaN	NaN	0.0	1.0
63	NaN	NaN	NaN	NaN	0.0	1.0
23	NaN	NaN	NaN	NaN	0.0	1.0
99	NaN	NaN	NaN	NaN	0.0	1.0
57	NaN	NaN	NaN	NaN	0.0	1.0
71	NaN	NaN	NaN	NaN	0.0	1.0
13	NaN	NaN	NaN	NaN	0.0	1.0
69	NaN	NaN	NaN	NaN	0.0	1.0
1	NaN	0.0	0	0	0.0	1.0
41	NaN	NaN	NaN	NaN	0.0	1.0
95	NaN	NaN	NaN	NaN	0.0	1.0
9	NaN	NaN	NaN	NaN	0.0	1.0
47	NaN	NaN	NaN	NaN	0.0	1.0
31	NaN	NaN	NaN	NaN	0.0	1.0
27	NaN	NaN	NaN	NaN	0.0	1.0
91	NaN	NaN	NaN	NaN	0.0	1.0
59	NaN	NaN	NaN	NaN	0.0	1.0
3	NaN	0.0	NaN	NaN	0.0	1.0
81	NaN	NaN	NaN	NaN	0.0	1.0
87	NaN	NaN	NaN	NaN	0.0	1.0
73	NaN	NaN	NaN	NaN	0.0	1.0
51	NaN	NaN	NaN	NaN	0.0	1.0
33	NaN	NaN	NaN	NaN	0.0	1.0
45	NaN	NaN	NaN	NaN	0.0	1.0
75	NaN	NaN	NaN	NaN	0.0	1.0
67	NaN	NaN	NaN	NaN	0.0	1.0
55	NaN	NaN	NaN	NaN	0.0	1.0
11	NaN	NaN	NaN	NaN	0.0	1.0
89	NaN	NaN	NaN	NaN	0.0	1.0
7	NaN	NaN	NaN	NaN	0.0	1.0
61	NaN	NaN	NaN	NaN	0.0	1.0



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19	NaN	NaN	NaN	NaN	0.0	1.0
85	NaN	NaN	NaN	NaN	0.0	1.0
35	NaN	NaN	NaN	NaN	0.0	1.0
17	NaN	NaN	NaN	NaN	0.0	1.0

```
In [5]: df = pd.read_csv('iris.csv')
num_columns = df.shape[1]
print(f"number of columns:{num_columns}")
column_names = df.columns
print("column names:")
for name in column_names:
    print(name)
```

number of columns:12
column names:
Unnamed: 0
Unnamed: 1
Unnamed: 2
Unnamed: 3
Unnamed: 4
Unnamed: 5
Unnamed: 6
Unnamed: 7
Unnamed: 8
Unnamed: 9
Unnamed: 10
Unnamed: 11

```
In [6]: df.shape
```

```
Out[6]: (101, 12)
```

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```
Unnamed: 3  
Unnamed: 4  
Unnamed: 5  
Unnamed: 6  
Unnamed: 7  
Unnamed: 8  
Unnamed: 9  
Unnamed: 10  
Unnamed: 11
```

In [6]: df.shape

Out[6]: (101, 12)

```
In [7]: df = pd.read_csv('iris.csv')  
sliced_data = df.iloc[10:20,[0,2,5]]  
print("sliced dataset:")  
print(sliced_data)
```

sliced dataset:

	Unnamed: 0	Unnamed: 2	Unnamed: 5
10	NaN	2.7	Iris-versicolor
11	NaN	2	Iris-versicolor
12	NaN	3	Iris-versicolor
13	NaN	2.2	Iris-versicolor
14	NaN	2.9	Iris-versicolor

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File + New Run Cell Code

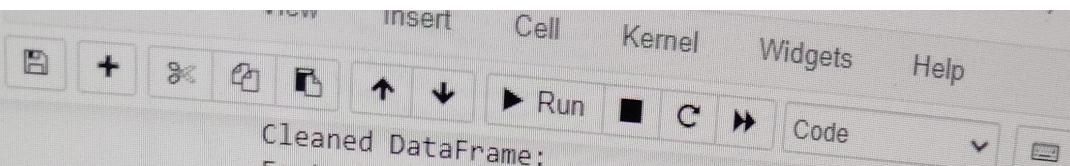
```
In [7]: df = pd.read_csv('iris.csv')
sliced_data = df.iloc[10:10,[0,2,5]]
print("sliced dataset:")
print(sliced_data)
```

```
sliced dataset:
   Unnamed: 0    Unnamed: 2    Unnamed: 5
10      NaN        2.7  Iris-versicolor
11      NaN        2.0  Iris-versicolor
12      NaN        3.0  Iris-versicolor
13      NaN        2.2  Iris-versicolor
14      NaN        2.9  Iris-versicolor
15      NaN        2.9  Iris-versicolor
16      NaN        3.1  Iris-versicolor
17      NaN        3.0  Iris-versicolor
18      NaN        2.7  Iris-versicolor
19      NaN        2.2  Iris-versicolor
```

```
In [9]: df.loc[3]
```

```
out[9]: Unnamed: 0          NaN
         Unnamed: 1          6.9
         Unnamed: 2          3.1
         Unnamed: 3          4.9
         Unnamed: 4          1.5
         Unnamed: 5  Iris-versicolor
         Unnamed: 6          NaN
         Unnamed: 7          0.0
         Unnamed: 8          NaN
         Unnamed: 9          NaN
         Unnamed: 10         0.0
         Unnamed: 11         1.0
Name: 3, dtype: object
```

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Cleaned DataFrame:

Empty DataFrame

Columns: [Unnamed: 0, Unnamed: 1, Unnamed: 2, Unnamed: 3, Unnamed: 4, Unnamed:

9, Unnamed: 10, Unnamed: 11]

Index: []

In [4]:

```
import numpy as np
import seaborn as sn
import matplotlib.pyplot as plt

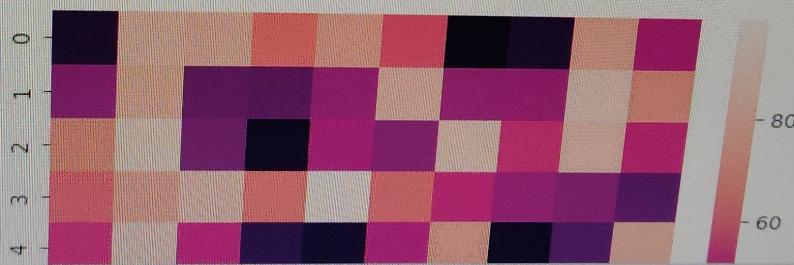
data = np.random.randint(low = 1,
high = 100,
size = (10, 10))
print("The data to be plotted:\n")
print(data)

hm = sn.heatmap(data = data)

plt.show()
```

The data to be plotted:

```
[[14 85 82 63 77 58 6 13 78 45]
 [34 81 25 23 37 83 38 39 89 71]
 [70 93 28 7 43 33 88 53 84 51]
 [60 77 86 63 99 62 50 39 33 22]
 [52 90 49 12 7 46 74 5 19 78]
 [47 57 59 55 60 31 95 93 4 48]
 [40 80 40 11 96 1 15 93 89 63]
 [22 39 54 63 2 17 10 16 65 62]
 [26 68 28 92 8 3 82 12 47 86]
 [94 16 65 49 14 91 56 35 89 13]]
```



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