



```
import pandas as pd
import numpy as np
from sklearn.tree import DecisionTreeClassifier
```

```
t=pd.read_csv('/content/demodt.txt',sep=",")
```


```
t.head()
```



	State	Literacy	Cleanliness	Crime_Rate	Good	
0	A	92	90	54	0	
1	B	56	67	50	1	
2	C	78	85	62	0	
3	D	63	72	48	1	
4	E	85	79	55	0	

Next steps: [Generate code with t](#) [View recommended plots](#)

```
t.isnull().sum()
```




```
State      0
Literacy   0
Cleanliness 0
Crime_Rate 0
Good       0
dtype: int64
```

```
x=t[['Literacy','Cleanliness','Crime_Rate',]]
y=t['Good']
```


```
dt=DecisionTreeClassifier()
```

```
dt.fit(x,y)
```




```
▼ DecisionTreeClassifier
DecisionTreeClassifier()
```

```
dt.predict([[52,65,50]])
```



```
/usr/local/lib/python3.10/dist-packages/sklearn/base.py:439: UserWarning: X does not have valid feature names, but Dec
warnings.warn(
array([1])
```

```
t1=int(input("Enter Literacy:"))
t2=int(input("Enter Cleanliness:"))
t3=int(input("Enter Crime_Rate:"))
t4=dt.predict([[t1,t2,t3]])
if t4==1:
    print("Good")
else:
    print("Bad")
```



```
Enter Literacy:54
Enter Cleanliness:50
Enter Crime_Rate:32
Good
/usr/local/lib/python3.10/dist-packages/sklearn/base.py:439: UserWarning: X does not have valid feature names, but Dec
```

```
warnings.warn(
```

```
from sklearn.ensemble import RandomForestClassifier
```

```
rf=pd.read_csv('/content/demodt.txt')
```

```
x=rf[['Literacy','Cleanliness','Crime_Rate']]
y=rf['Good']
```

```
RF=RandomForestClassifier()
```

```
rf.head()
```

	State	Literacy	Cleanliness	Crime_Rate	Good
0	A	92	90	54	0
1	B	56	67	50	1
2	C	78	85	62	0
3	D	63	72	48	1
4	E	85	79	55	0

Next steps: [Generate code with rf](#) [View recommended plots](#)

```
RF.fit(x,y)
```

```
RandomForestClassifier
RandomForestClassifier()
```

```
RF.predict([[54,32,50]])
```

```
/usr/local/lib/python3.10/dist-packages/sklearn/base.py:439: UserWarning: X does not have valid feature names, but Ran
warnings.warn(
array([1])
```

```
rf1=int(input("Enter Literacy:"))
rf2=int(input("Enter Cleanliness:"))
r3=int(input("Enter Crime_Rate:"))
r4=dt.predict([[t1,t2,t3]])
if r4==1:
    print("Good")
else:
    print("Bad")
```

```
Enter Literacy:45
Enter Cleanliness:32
Enter Crime_Rate:58
Good
/usr/local/lib/python3.10/dist-packages/sklearn/base.py:439: UserWarning: X does not have valid feature names, but Dec
warnings.warn(
```

