

```
# -*- coding: utf-8 -*-
```

```
"""
```

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Created on Thu Jun 28 21:57:49 2018
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```
Rain_prediction
```

```
"""
```

```
import pandas as pd
```

```
import matplotlib.pyplot as plt
```

```
import numpy as np
```

```
dataset=pd.read_csv('rain_prediction.csv')
```

```
X = dataset.iloc[:, :-1].values
```

```
Y = dataset.iloc[:, 10].values
```

```
"""from sklearn.preprocessing import Imputer
```

```
imputer = Imputer(missing_values="NaN", strategy="mean", axis=0)
```

```
imputer = imputer.fit(X[:, 2:11], y=None)
```

```
X[:, 2:11] = imputer.transform(X[:, 2:11])"""
```

```
from sklearn.preprocessing import LabelEncoder
```

```
label_encoder_X = LabelEncoder()
```

```
label_encoder_Y = LabelEncoder()
```

```
X[:, 0] = label_encoder_X.fit_transform(X[:, 0])
```

```
X[:, 1] = label_encoder_X.fit_transform(X[:, 1])
```

```
"""onehotencoder = OneHotEncoder(categorical_features= [0])
```

```
X = onehotencoder.fit_transform(X).toarray()
```

```
onehotencoder = OneHotEncoder(categorical_features= [1])
```

```
X = onehotencoder.fit_transform(X).toarray()"""
```

```
from sklearn.model_selection import train_test_split
```

```
X_train, X_test, Y_train, Y_test = train_test_split(X,Y, test_size = .2 , random_state = 0)
```

```
# feature scaling
```

```
#from sklearn.preprocessing import StandardScaler
```

```
#sc_X = StandardScaler()
```

```
#X_train = sc_X.fit_transform(X_train)
```

```
#X_test = sc_X.fit_transform(X_test)
```

```
from sklearn.linear_model import LinearRegression
```

```
regressor = LinearRegression()
```

```
regressor.fit(X_train,Y_train)
```

```
#predicting the test set result
```

```
y_pred = regressor.predict(X_test)
```

```
y_test =
```

Y_test - NumPy array

	0
10	0
11	0
12	0
13	0
14	0
15	0
16	0
17	0
18	0
19	0
20	0
21	0
22	0
23	0
24	0
25	0
26	0
27	0.8
28	0
29	0
30	0
31	0
32	0

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Y_test - NumPy array

	0
81	0
82	0
83	0
84	0
85	0
86	0
87	0
88	0
89	0
90	0
91	0
92	0
93	0
94	0
95	0.8
96	0
97	0
98	0
99	0
100	0
101	0
102	0
103	0

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OK

Y_pred =

y_pred - NumPy array

	0
10	-0.00544471
11	-0.198505
12	0.0890428
13	-0.135316
14	-0.0255911
15	0.0289775
16	-0.0239354
17	0.0601257
18	-0.100907
19	0.142551
20	0.00635949
21	-0.0066026
22	0.0342821
23	-0.0580955
24	-0.00609706
25	-0.087307
26	0.0451088
27	0.190026
28	0.0473654
29	-0.03954
30	0.0596922
31	0.0956971
32	-0.00824344

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y_pred - NumPy array

	0
81	0.191371
82	-0.125177
83	-0.122197
84	-0.0888923
85	0.232707
86	0.222457
87	-0.0125622
88	0.106252
89	0.0439817
90	0.121951
91	0.0419875
92	0.0219677
93	-0.0415559
94	0.185526
95	0.190026
96	0.00602564
97	0.0233043
98	-0.0297177
99	0.0508635
100	-0.0303564
101	0.0330652
102	0.0455803
103	0.0401251

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