

1.Training And Testing The Model

```
from sklearn.ensemble import RandomForestClassifier

from sklearn.ensemble import GradientBoostingClassifier

RFC=RandomForestClassifier()

GBC=GradientBoostingClassifier()

np.any(np.isnan(x))

False

GBC.fit(x_train,y_train)

GradientBoostingClassifier()

RFC.fit(x_train,y_train)

RandomForestClassifier()

data.isnull().any()

Date          False

Location      False

MinTemp       False

MaxTemp       False

Rainfall      False

WindGustSpeed False

WindSpeed9am  False

WindSpeed3pm  False

Humidity9am   False

Humidity3pm   False

Pressure9am   False

Pressure3pm   False

Temp9am       False
```

Temp3pm False

RainTomorrow False

RainToday False

WindGustDir False

WindDir9am False

WindDir3pm False

dtype: bool

x.isnull().any()

Location False

MinTemp False

MaxTemp False

Rainfall False

WindGustSpeed False

WindSpeed9am False

WindSpeed3pm False

Humidity9am False

Humidity3pm False

Pressure9am False

Pressure3pm False

Temp9am False

Temp3pm False

RainToday False

WindGustDir False

WindDir9am False

WindDir3pm False

```
dtype: bool
```

```
p1=RFC.predict(x_train)
```

```
p2=RFC.predict(x_test)
```

2.Model Evaluation

```
import sklearn.metrics as metrics
```

```
Accuracy_score
```

```
print(metrics.accuracy_score(y_train,p1))
```

```
0.9999472546020359
```

```
print(metrics.accuracy_score(y_test,p2))
```

```
0.8567460177924681
```

3. Save The Model

```
import pickle
```

```
pickle.dump(RFC,open('rainfall.pkl','wb'))
```

```
pickle.dump(LE,open('encoder.pkl','wb'))
```

```
pickle.dump(imp_mode,open('imputer.pkl','wb'))
```

```
pickle.dump(sc,open('scale.pkl'
```