

Assignment – Classification

GridSearchCV Algorithms

Dataset File Name: **CKD.csv**

1. Identify your problem statement:

3 – Stages:

Stage -1: Domain → Machine Learning

Stage -2: Learning → Supervised Learning

Stage -3: Learning → Supervised Learning (**Classification**)

2. Tell basic info about the dataset:

Total Number of rows: 399

Total Number of Col: 28

3. Mention the pre-processing method:

Get Dummies:

String to Number – Ordinal data – Mapping – Label Encoder

Classification (Categorical)	Classification (NUMERICAL)
No	0
Yes	1

4. Develop a good model with good evaluation metric:

- To find a good model for the dataset **CKD.csv** using the following machine learning classification algorithm:

1. Naïve Bayes

- Multinomial
- Complement
- Categorical

Naïve Bayes :

F1_Score: 0.9974953761738116

The confusion Matrix:

```
[[150  0]
 [ 1 248]]
```

Classification Report:

The report:

	precision	recall	f1-score	support
0	0.99	1.00	1.00	150
1	1.00	1.00	1.00	249
accuracy			1.00	399
macro avg	1.00	1.00	1.00	399
weighted avg	1.00	1.00	1.00	399

roc_auc_score: 1.0