

For dataset "CKD.csv"

### SVM:

Hyper tuning parameter : {'C': 1000, 'kernel': 'linear'}

Confusion matrix:

```
[[43  2]
 [ 2 73]]
```

Classification  
report:

	precision	recall	f1-score	support
0	0.96	0.96	0.96	45
1	0.97	0.97	0.97	75
accuracy			0.97	120
macro avg	0.96	0.96	0.96	120
weighted avg	0.97	0.97	0.97	120

### Decision Tree:

HyperTuning parameter is {'criterion': 'gini', 'splitter': 'random'}

Confusion Matrix : [[43 2]  
[ 4 71]]

ClassificationReport is:

	precision	recall	f1-score	support
0	0.91	0.96	0.93	45
1	0.97	0.95	0.96	75
accuracy		0.95		120
macro avg	0.94	0.95	0.95	120
weighted avg	0.95	0.95	0.95	120

### Random Forest :

HyperTuning parameter is {'criterion': 'gini', 'max\_features': 'log2', 'n\_estimators': 50}

Confusion Matrix : [[44 1]  
[ 1 74]]

ClassificationReport is:

	precision	recall	f1-score	support
0	0.98	0.98	0.98	45
1	0.99	0.99	0.99	75
accuracy		0.98		120
macro avg	0.98	0.98	0.98	120
weighted avg	0.98	0.98	0.98	120

## LogisticRegression

HyperTuning parameter is {'penalty': 'l2', 'solver': 'liblinear'}

CM : [[43 2]

[ 1 74]]

CR:

	precision	recall	f1-score	support
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0	0.98	0.96	0.97	45
---	------	------	------	----

1	0.97	0.99	0.98	75
---	------	------	------	----

accuracy			0.97	120
----------	--	--	------	-----

macro avg	0.98	0.97	0.97	120
-----------	------	------	------	-----

weighted avg	0.98	0.97	0.97	120
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## KNN

HyperTuning parameter is {'metric': 'minkowski', 'n\_neighbors': 12, 'p': 2}

CM : [[41 4]

[28 47]]

CR:

	precision	recall	f1-score	support
--	-----------	--------	----------	---------

0	0.59	0.91	0.72	45
---	------	------	------	----

1	0.92	0.63	0.75	75
---	------	------	------	----

accuracy			0.73	120
----------	--	--	------	-----

macro avg	0.76	0.77	0.73	120
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weighted avg	0.80	0.73	0.74	120
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## Naïve bayes

### GaussianNB

[[45 0]

[ 2 73]]

	precision	recall	f1-score	support
--	-----------	--------	----------	---------

0	0.96	1.00	0.98	45
---	------	------	------	----

1	1.00	0.97	0.99	75
---	------	------	------	----

accuracy			0.98	120
----------	--	--	------	-----

macro avg	0.98	0.99	0.98	120
-----------	------	------	------	-----

weighted avg	0.98	0.98	0.98	120
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## MultiNominalNB

```

[[44  1]
 [21 54]]
      precision    recall  f1-score   support

     0       0.68       0.98       0.80        45
     1       0.98       0.72       0.83        75

 accuracy          0.82        120
 macro avg       0.83       0.85       0.82        120
weighted avg       0.87       0.82       0.82        120

```

### ComplementNB

```

[[44  1]
 [21 54]]
      precision    recall  f1-score   support

     0       0.68       0.98       0.80        45
     1       0.98       0.72       0.83        75

 accuracy          0.82        120
 macro avg       0.83       0.85       0.82        120
weighted avg       0.87       0.82       0.82        120

```

### BernoulliNB

```

[[45  0]
 [ 6 69]]
      precision    recall  f1-score   support

     0       0.88       1.00       0.94        45
     1       1.00       0.92       0.96        75

 accuracy          0.95        120
 macro avg       0.94       0.96       0.95        120
weighted avg       0.96       0.95       0.95        120

```

### CategoricalNB

```

[[45  0]
 [ 2 73]]
      precision    recall  f1-score   support

     0       0.96       1.00       0.98        45
     1       1.00       0.97       0.99        75

 accuracy          0.98        120
 macro avg       0.98       0.99       0.98        120
weighted avg       0.98       0.98       0.98        120

```