Project CKD

Stages of problem statement

- Clear Requirement and Input Output Presented – Supervised Learning.
- Input is Numeric so its Machine Learning.
- Output is categorical data so its Classification.

1.SVM			
Sl. No	C Value	Accuracy	roc_auc_score
1	1	0.99	0.993902439

```
print(clf_report)
```

```
              precision    recall  f1-score   support

           0       0.98      1.00      0.99        51
           1       1.00      0.99      0.99        82

    accuracy                           0.99       133
   macro avg       0.99      0.99      0.99       133
weighted avg       0.99      0.99      0.99       133
```

```
from sklearn.metrics import roc_auc_score
roc_auc_score(y_test,grid_predictions)
```

```
0.9939024390243902
```

2.DCC		
Sl.No	Accurecy	roc_auc_score
1	0.93	0.930296509

```
print(clf_report)
```

```
              precision    recall  f1-score   support

           0       0.90      0.92      0.91        51
           1       0.95      0.94      0.94        82

    accuracy                           0.93       133
   macro avg       0.93      0.93      0.93       133
weighted avg       0.93      0.93      0.93       133
```

```
from sklearn.metrics import roc_auc_score
roc_auc_score(y_test,grid_predictions)
```

```
0.9302965088474415
```

3.RFC		
Sl. No	Accuracy	roc_auc_score
1	0.98	0.984

```
print(clf_report)
```

```
              precision    recall  f1-score   support

           0       0.98      0.98      0.98        51
           1       0.99      0.99      0.99        82

    accuracy                           0.98       133
   macro avg       0.98      0.98      0.98       133
weighted avg       0.98      0.98      0.98       133
```

```
from sklearn.metrics import roc_auc_score
roc_auc_score(y_test,grid_predictions)
```

```
0.9840985174557627
```

Best Model

1.Best Model is Depends, evaluation metric is considered by me (Accuracy, roc_auc_score)

1.SVM			
Sl. No	C Value	Accuracy	roc_auc_score
1	1	**0.99**	**0.993902439**