Alcohol Metrics analysis: Classification Report: - (**Decision Tree confusion matrix)**

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**********CONFUSION MATRIX for the Selection feature set**********

Accuracy score (Decision Tree):-  0.9389067524115756

Accuracy score (Random Forest):-  0.9710610932475884

Accuracy score (SVM):-  0.9710610932475884

Accuracy score (KNN):-  0.9710610932475884

Confusion Matrix (Decision Tree):-

[[  2  16]
 [ 22 582]]

Confusion Matrix (Random Forest):-

[[  0  18]
 [  0 604]]

Confusion Matrix (SVM):-

[[  0  18]
 [  0 604]]

Confusion Matrix (KNN):-

[[  0  18]
 [  0 604]]
```

Classifier: Decision Tree

Drug Classification: Alcohol (Nonusers and Users)

		Predicted	
		0 - Non-Users	**1 - Users**
ACTUAL	**0 - Non Users**	**TP [2]**	**FP [16]**
	1 - Users	**FN [22]**	**TN [582]**

True positive:

This is the measure predicted Non Users(0) in the system and the decision tree has predicted 2 non users from the training set accurately

True Negative:

This is the measure predicted Users(1) in the system and the decision tree has predicted 582 non users from the training set accurately

False Positive:

The classifier has detected a non user to be drug users in 16 cases

False Negative:

The classifier has mis predicted a potential drug user as a non user in 22 cases

Here since out aim to find the effect of features to identify the Drug users, the TYPE II error that is the False negatives are more concerning than the Type 1 error. Which shows that the other classifiers have a better prediction rate than compared to the Decision tree classifier.