

## CV-Partition for SMOTE

```
% Converts labels to string
Y__full_bal = string(Y_full_bal);

% Excludes 15% for test set
cv1 = cvpartition(Y_full_bal, 'HoldOut', 0.15);
X_remain = X_full_bal(training(cv1), :);
Y_remain = Y__full_bal(training(cv1));
X_test = X_full_bal(test(cv1), :);
Y_test = Y__full_bal(test(cv1));

% From remaining 85%, 15% is split for validation
cv2 = cvpartition(Y_remain, 'HoldOut', 0.1765);
X_train = X_remain(training(cv2), :);
Y_train = Y_remain(training(cv2));
X_val_table = X_remain(test(cv2), :);
Y_val = Y_remain(test(cv2));
```

```
% Converts training features to table
T_train = array2table(X_train);

% Class labels are added
T_train.Label = Y_train;

% Renaming of the columns
for i = 1:width(T_train) - 1
    T_train.Properties.VariableNames{i} = sprintf('Feature_%d', i);
end
```