

## KFold splitting

```
kf = KFold(n_splits=5, shuffle=True, random_state=22)
```

## SGDClassifier

```
Pipeline(steps=[('ss', StandardScaler()),  
                ('classifier',  
                 OneVsRestClassifier(estimator=SGDClassifier(alpha=0.004,  
                                                             eta0=0.002,  
                                                             learning_rate='constant',  
                                                             loss='log',  
                                                             max_iter=25000,  
                                                             n_jobs=-1,  
                                                             random_state=34),  
                                     n_jobs=-1))])
```

## LogisticRegression

```
Pipeline(steps=[('ss', StandardScaler()),  
                ('classifier',  
                 OneVsRestClassifier(estimator=LogisticRegression(multi_class='multinomial',  
                                                                    n_jobs=-1,  
                                                                    random_state=34),  
                                     n_jobs=-1))])
```

## **XGBoostClassifier**

```
Pipeline(steps=[('ss', StandardScaler()),
                 ('classifier',
                  OneVsRestClassifier(estimator=XGBClassifier(base_score=None,
                                                                booster='gbtree',
                                                                colsample_bylevel=None,
                                                                colsample_bynode=None,
                                                                colsample_bytree=None,
                                                                gamma=None,
                                                                gpu_id=None,
                                                                importance_type='gain',
                                                                interaction_constraints=None,
                                                                learning_rate=0.1,
                                                                max_delta_step=None,
                                                                max_depth=10,
                                                                min_child_weight=None,
                                                                missing=nan,
                                                                monotone_constraints=None,
                                                                n_estimators=200,
                                                                n_jobs=-1,
                                                                num_parallel_tree=None,
                                                                random_state=34,
                                                                reg_alpha=None,
                                                                reg_lambda=None,
                                                                scale_pos_weight=None,
                                                                subsample=None,
                                                                tree_method='hist',
                                                                validate_parameters=None,
                                                                verbosity=None),
                  n_jobs=-1))])
```

## **RandomForestClassifier**

```
Pipeline(steps=[('ss', StandardScaler()),
                 ('classifier',
                  OneVsRestClassifier(estimator=RandomForestClassifier(max_depth=10,
                                                                n_estimators=200,
                                                                n_jobs=-1,
                                                                random_state=34),
                  n_jobs=-1))])
```