**Cleaning and Visualization Libraries**

import pandas as pd

import re

import numpy as np

import matplotlib.pyplot as plt

import seaborn as sns

sns.set(style="whitegrid")

**ml tools**

from sklearn.preprocessing import (StandardScaler,

MinMaxScaler,

OrdinalEncoder,

OneHotEncoder,

RobustScaler,

LabelEncoder,

power\_transform,

FunctionTransformer)

from sklearn.compose import ColumnTransformer

from sklearn.preprocessing import FunctionTransformer

from sklearn.model\_selection import ( cross\_val\_predict,

cross\_val\_score,

train\_test\_split,

GridSearchCV,

StratifiedKFold,

RandomizedSearchCV)

from sklearn.pipeline import Pipeline , make\_pipeline

from scipy.stats import randint

from scipy import stats

from imblearn.over\_sampling import SMOTE

from sklearn.impute import SimpleImputer

**models**

from sklearn.dummy import DummyClassifier

from sklearn.linear\_model import SGDClassifier, LogisticRegression

from sklearn.ensemble import (RandomForestClassifier,

GradientBoostingClassifier,

BaggingClassifier)

from sklearn.svm import SVC

from sklearn.tree import DecisionTreeClassifier

from sklearn.neighbors import KNeighborsClassifier

from imblearn.ensemble import BalancedBaggingClassifier, BalancedRandomForestClassifier

from imblearn.ensemble import EasyEnsembleClassifier

from sklearn.ensemble import AdaBoostClassifier, ExtraTreesClassifier, GradientBoostingClassifier

from xgboost import XGBClassifier

from lightgbm import LGBMClassifier

from catboost import CatBoostClassifier

**metrics**

from sklearn.metrics import (accuracy\_score,

f1\_score,

roc\_auc\_score,

roc\_curve,

log\_loss,

classification\_report,

confusion\_matrix)