Outlier Detection Techniques :-

1. Boxplots
2. Scatterplot
3. Cook's distance(supervised ML)
4. Normal Distribution
5. DBScan(Unsupervised ML)
6. Isolation Forest(SML)

Dataset splitting Techniques:-

[\*\*Refrence\_link\*\*](https://colab.research.google.com/drive/1RDtUEjqib9EPSoWvwpHte5wlU41FwWj_?usp=sharing)

1. train\_test\_split :-

from sklearn.model\_selection import train\_test\_split

x\_train,x\_test,y\_train,y\_test = train\_test\_split(x,y,test\_size=0.3,random\_state=0,stratify=y)

1. SMOTE (Synthetic minority oversampling Technique) :-

from imblearn.over\_sampling import SMOTE

smt = SMOTE()

x\_train\_sm, y\_train\_sm = smt.fit\_resample(x\_train, y\_train)

1. ADASYN (Adaptive Synthetic Sampling Approch) :-

from imblearn.over\_sampling import ADASYN

ada = ADASYN(random\_state=130)

x\_train\_ada, y\_train\_ada = ada.fit\_resample(x\_train, y\_train)

1. SMOTE + Tomek links :-

from imblearn.combine import SMOTETomek

smtom = SMOTETomek(random\_state=139)

x\_train\_smtom, y\_train\_smtom = smtom.fit\_resample(x\_train, y\_train)

1. SMOTE + ENN :-

from imblearn.combine import SMOTEENN

smenn = SMOTEENN()

x\_train\_smenn, y\_train\_smenn = smenn.fit\_resample(x\_train, y\_train)

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