

Data Pre-Processing

Scaling The Data

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Team Id	PNT2022TMID22689
Project Name	Smart Lender- Applicant CredibilityPrediction for Loan Approval

Scaling is one the important process, we have to perform on the dataset,because of data measures in different ranges can leads to mislead in prediction

Models such as KNN, Logistic regression need scaled data, as they follow distance based method and Gradient Descent concept.

```
In [34]: from sklearn.preprocessing import LabelEncoder, OneHotEncoder, StandardScaler
le = LabelEncoder()
oneh = OneHotEncoder()
sc = StandardScaler()
data['Gender'] = le.fit_transform(data['Gender'])
data['Loan_ID'] = le.fit_transform(data['Loan_ID'])
data.head()
x = data.iloc[0:5, 0:2]
x_scaled = sc.fit_transform(x)
x_scaled
```

```
Out[34]: array([[ -1.41421356,  0.          ],
                [ -0.70710678,  0.          ],
                [  0.          ,  0.          ],
                [  0.70710678,  0.          ],
                [  1.41421356,  0.          ]])
```

We will perform scaling only on the input values

Once the dataset is scaled, it will be converted into array and we need to convert it back to dataframe.