EXPERIMENT - 5

FEATURE SCALING IN GIVEN DATASET

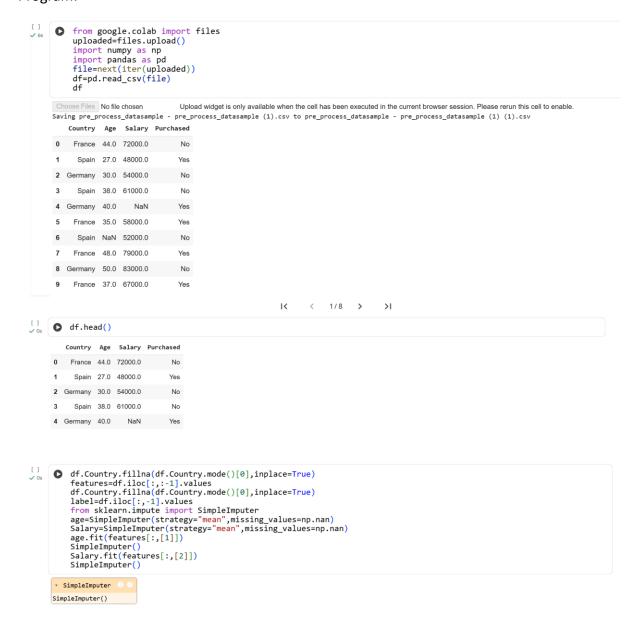
Aim:

To provide feature scaling for a given dataset

Procedure:

- Upload the given csv file
- Import the necessities like numpy and Pandas
- Use pandas to read csv and make it as an data frame
- Now use SimpleImputer to fill missing values

Program:



```
[ ] from sklearn.preprocessing import StandardScaler
                sc=StandardScaler()
                feat_standard_scaler()
feat_standard_scaler=sc.transform(final_set)
feat_standard_scaler
         array([[ 1.22474487e+00, -6.54653671e-01, -6.54653671e-01,
                          7.58874362e-01, 7.49473254e-01],
                      [-8.16496581e-01, -6.54653671e-01, 1.52752523e+00,
                        -1.71150388e+00, -1.43817841e+00],
                    -1.71150388e+00, -1.43817841e+00],
[-8.16496581e-01, 1.52752523e+00, -6.54653671e-01,
-1.27555478e+00, -8.91265492e-01],
[-8.16496581e-01, -6.54653671e-01, 1.52752523e+00,
-1.13023841e-01, -2.53200424e-01],
[-8.16496581e-01, 1.52752523e+00, -6.54653671e-01,
1.77608893e-01, 6.63219199e-16],
[1.22474487e+00, -6.54653671e-01, -6.54653671e-01,
-5.48972942e-01, -5.26556882e-01]
                         -5.48972942e-01, -5.26656882e-01],
                     [-8.16496581e-01, -6.54653671e-01, 1.52752523e+00,
                          0.00000000e+00, -1.07356980e+00],
                      [ 1.22474487e+00, -6.54653671e-01, -6.54653671e-01,
                          1.34013983e+00, 1.38753832e+00],
                      [-8.16496581e-01, 1.52752523e+00, -6.54653671e-01,
                      1.63077256e+00, 1.75214693e+00],
[1.22474487e+00, -6.54653671e-01, -6.54653671e-01,
from sklearn.preprocessing import MinMaxScaler
mms=MinMaxScaler(feature_range=(0,1))
                mms.fit(final_set)
feat_minmax_scaler=mms.transform(final_set)
                feat minmax scaler
                                    , 0. , 0. , 0.73913043, 0.68571429], 0. , 0. , 1. , 0. , 0. ], 1. , 0. , 0. ], 1. , 0. , 0. ], 1. , 0. , 0.13043478, 0.17142857], 0. , 1. , 0.47826087, 0.37142857], 1. , 0. , 0.56521739, 0.45079365], 0. , 0. , 0.34782609, 0.28571429], 0. , 1. , 0.51207729, 0.11428571], 0. , 0. , 0.91304348, 0.88571429], 1. , 0. , 0. , 0.91304348, 0.88571429], 1. , 0. , 0. , 0.43478261, 0.54285714]])
        array([[1.
                     [0.
                     Γø.
                     Γ0.
                     [1.
                     [1.
[0.
```

Result:

Thus the python program to do feature scaling in given dataset is executed and verified successfully