# EXPERIMENT NO: 5

# **Feature Scaling for given Dataset**

**Aim:**

To write the Python program to perform and understand the importance of feature scaling.

**Algorithm:**

1. Load the dataset and inspect its structure and contents.
2. Identify and handle missing values using mean imputation. Encode categorical variables using OneHotEncoder.
3. Normalize numerical features using MinMaxScaler.
4. Standardize features using StandardScaler for uniform scaling.
5. Combine processed features into a final dataset for analysis.

**Program:**

A screenshot of a computer

AI-generated content may be incorrect. A screenshot of a computer

AI-generated content may be incorrect.

A screenshot of a computer

AI-generated content may be incorrect.

A screenshot of a computer

AI-generated content may be incorrect.

**Result:**

Thus, the Python program is executed successfully for feature scaling of the given dataset using Pandas and Scikit-learn techniques.