1. Write a python program to convert categorical values to numeric format in a given dataset using LabelEncoder and OneHotEncoder (Use train.csv).
2. Write a python program to scale the features using min- max scaling.(use train .csv)
3. Implement distance measure functions :
    a. Write a python program to calculate the Euclidean distance between two points in a 2D or 3D space.
    b. Write a python program to calculate the Manhattan distance (also known as taxicab or city block distance) between two points.
    c. Write a python program to calculate the Hamming distance between two strings of equal length.
    d. Write a python program to compute the cosine similarity between two vectors.
    e. Write a python program to compute the Minkowski distance between two points for a given value of 'p'.
4. Write a python program to compute the Pearson correlation coefficient between two variables.
5. Write a python program that performs one-hot encoding on categorical columns within a pandas DataFrame, preserving column names and concatenating the encoded columns to the original DataFrame.
6. Write a python program to modify the one-hot encoding function to handle missing categories gracefully, ensuring that the encoding retains compatibility with the original dataset. (use train.csv / iris.csv)