NPTEL ONLINE CERTIFICATION COURSES

Course Name: Deep Learning
Faculty Name: Prof. P. K. Biswas
Department : E & ECE, IIT Kharagpur

Topic
Lecture 09: Linear Classifier

CONCEPTS COVERED

Concepts Covered:

❑ Discriminant Function and Decision Boundary

❑ Nearest Neighbour and k-NN Classifier

❑ Linear Classifier

❑ Support Vector Machine (SVM)
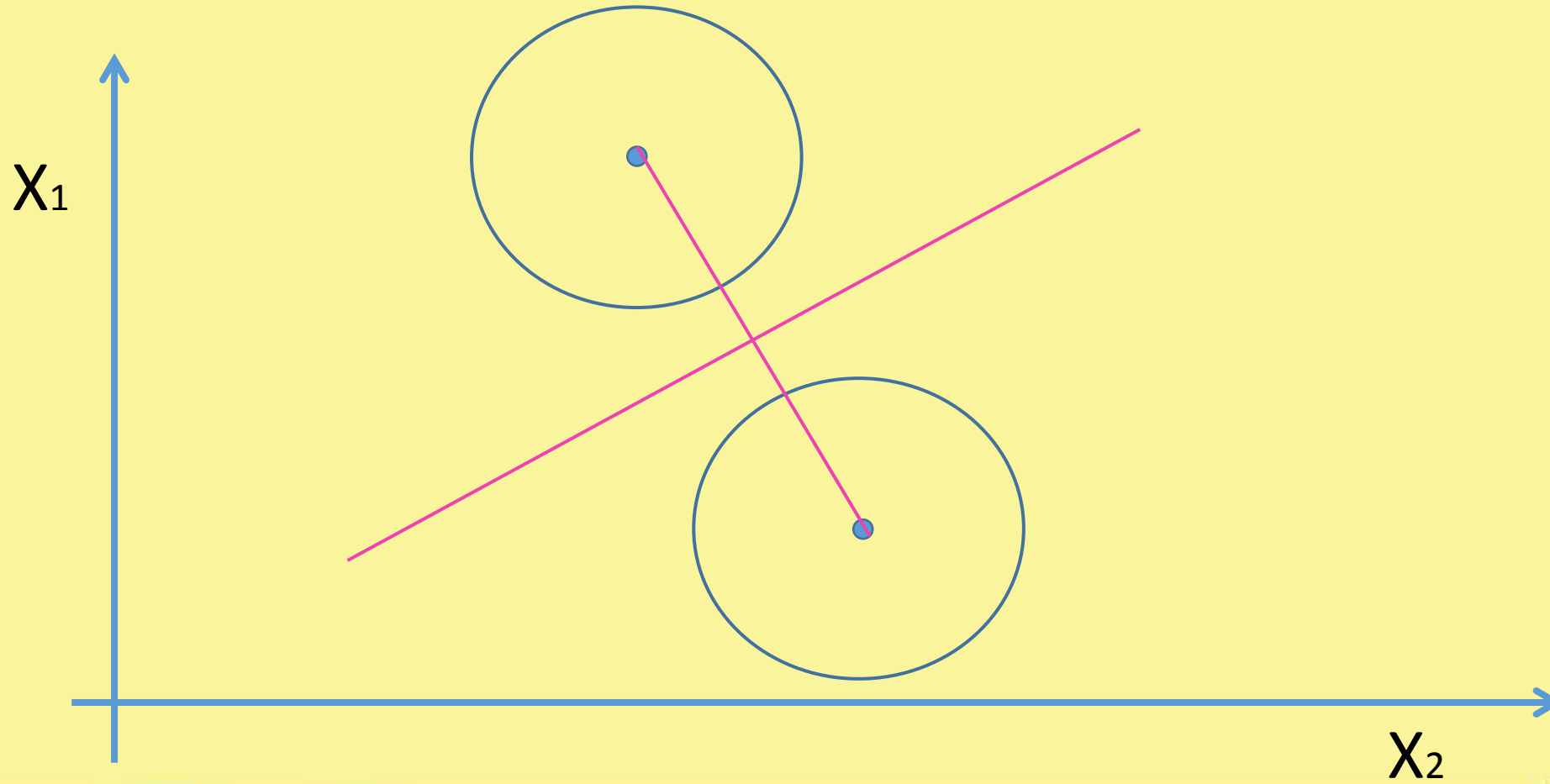
Nearest Neighbour Rule

Minimum Distance Classifier

Image Source: Internet
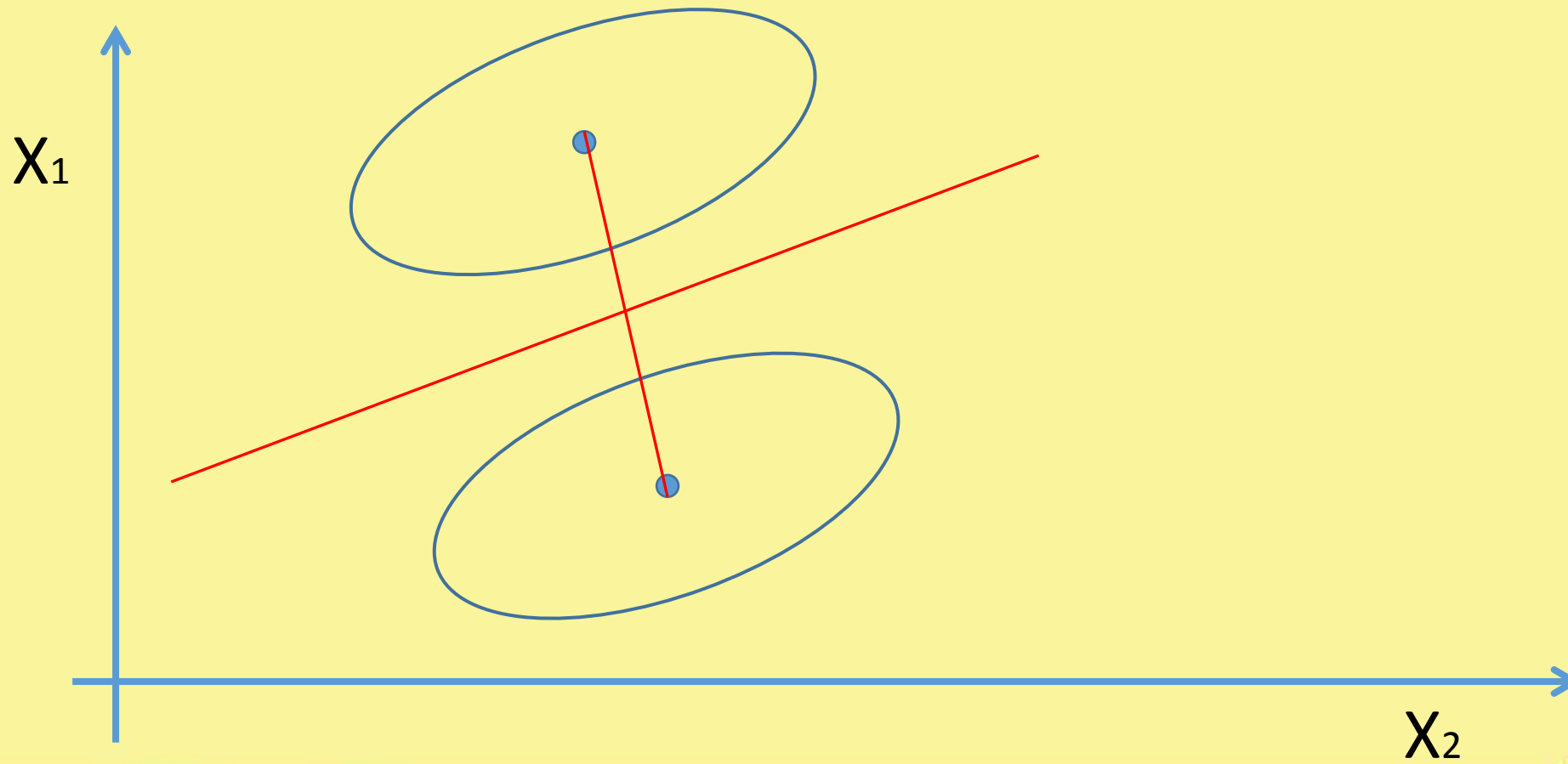
Minimum Distance Classifier

Image Source: Internet

Nearest Neighbour Rule
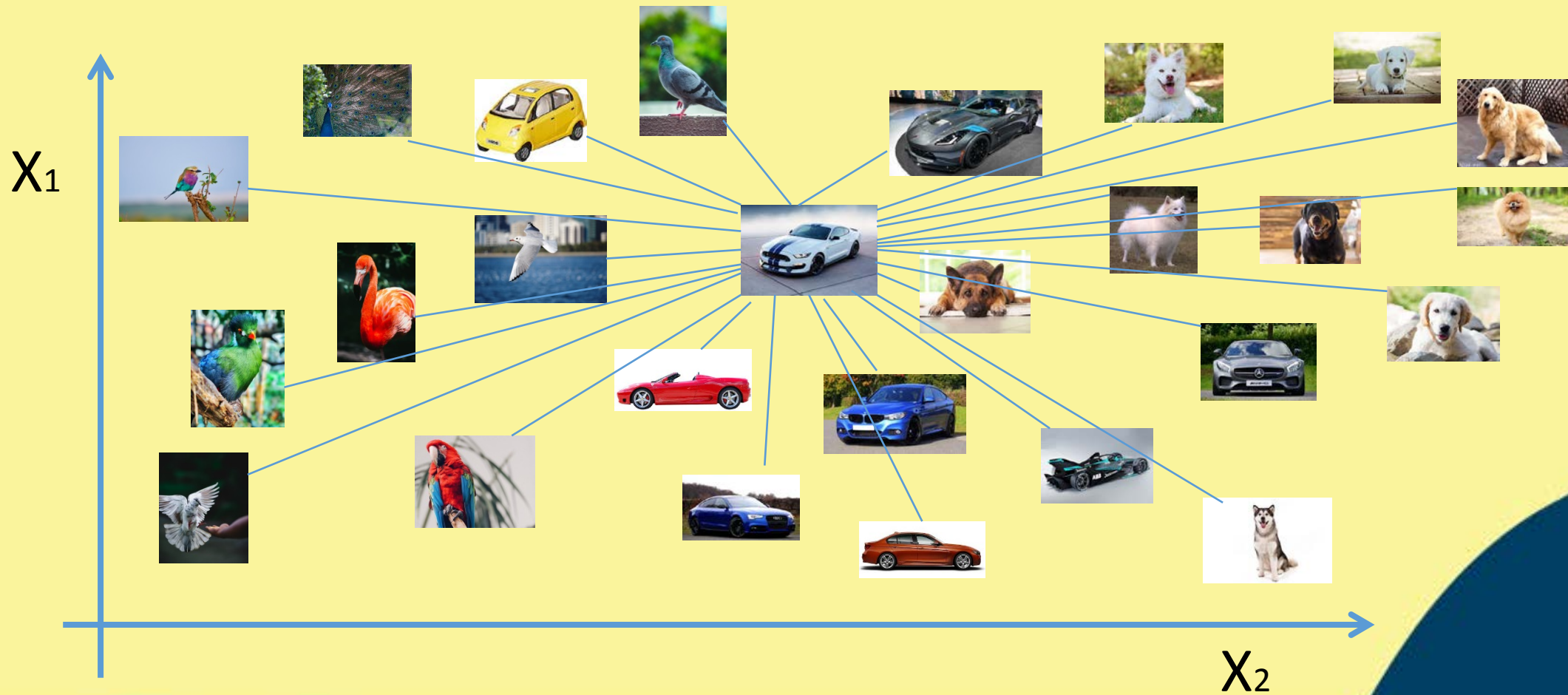

X_1

X_2

Image Source: Internet

Nearest Neighbour Rule

Image Source: Internet

Nearest Neighbour Rule

X₁

X₂

k-Nearest Neighbour Rule

K-Nearest Neighbour Rule (k-NN Rule)

X_1

X_2

Image Source: Internet
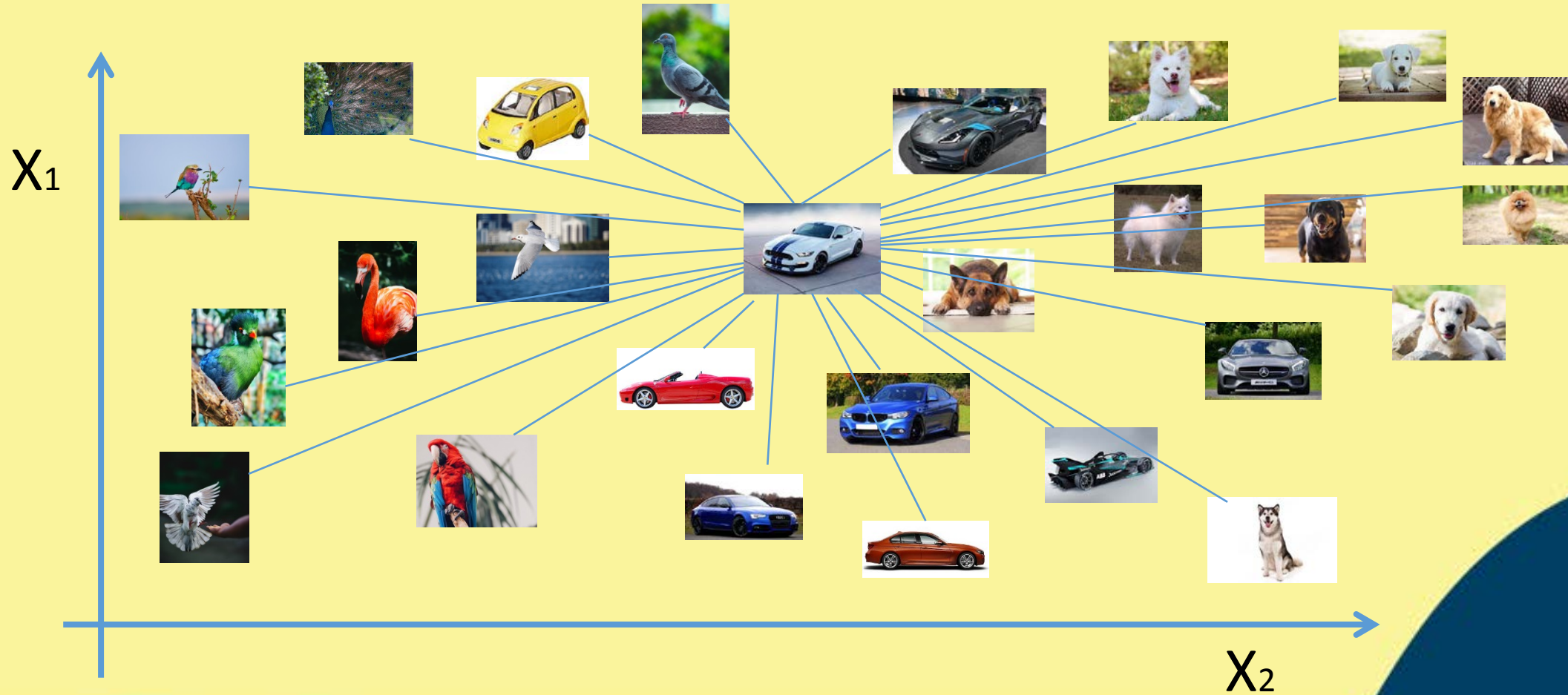
K-Nearest Neighbour Rule (k-NN Rule)

X_1

X_2

K-Nearest Neighbour Rule (k-NN Rule)

X_1

X_2

Image Source: Internet

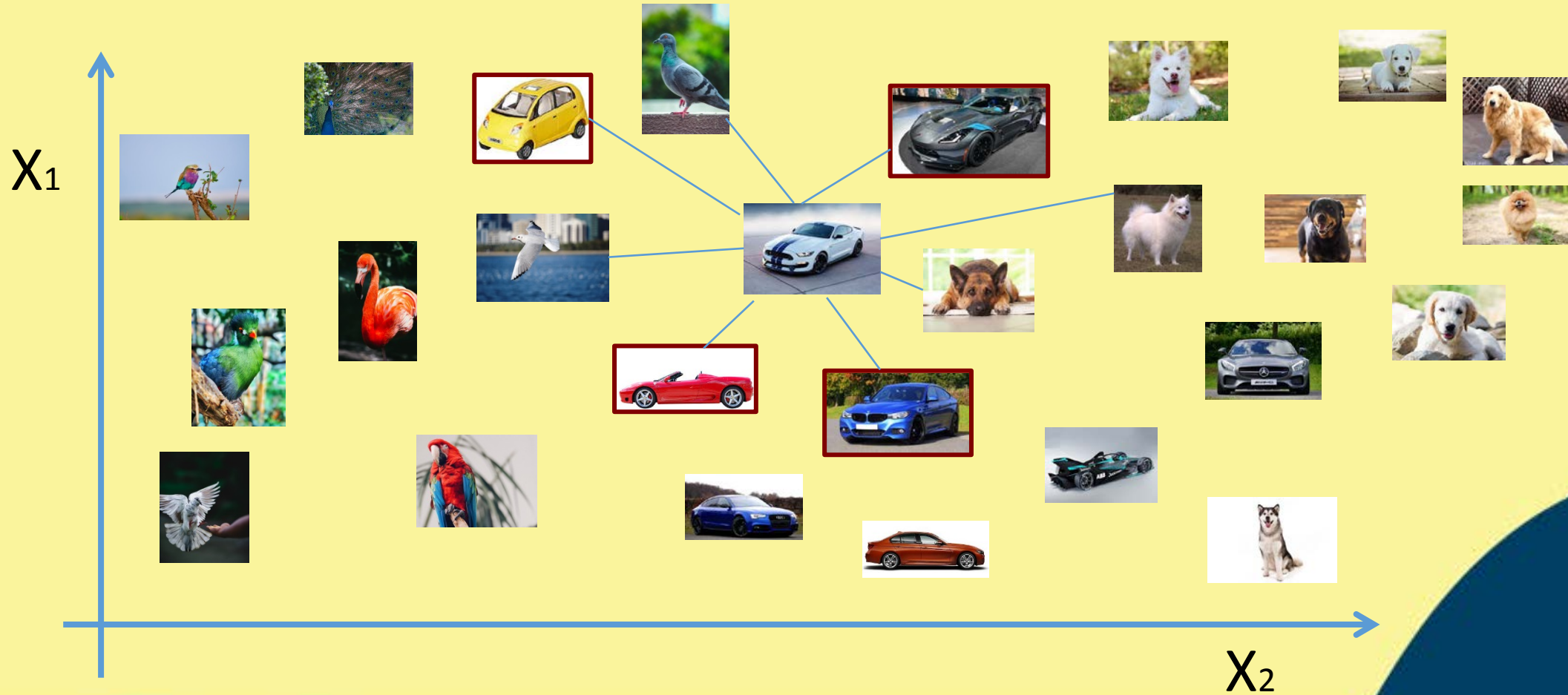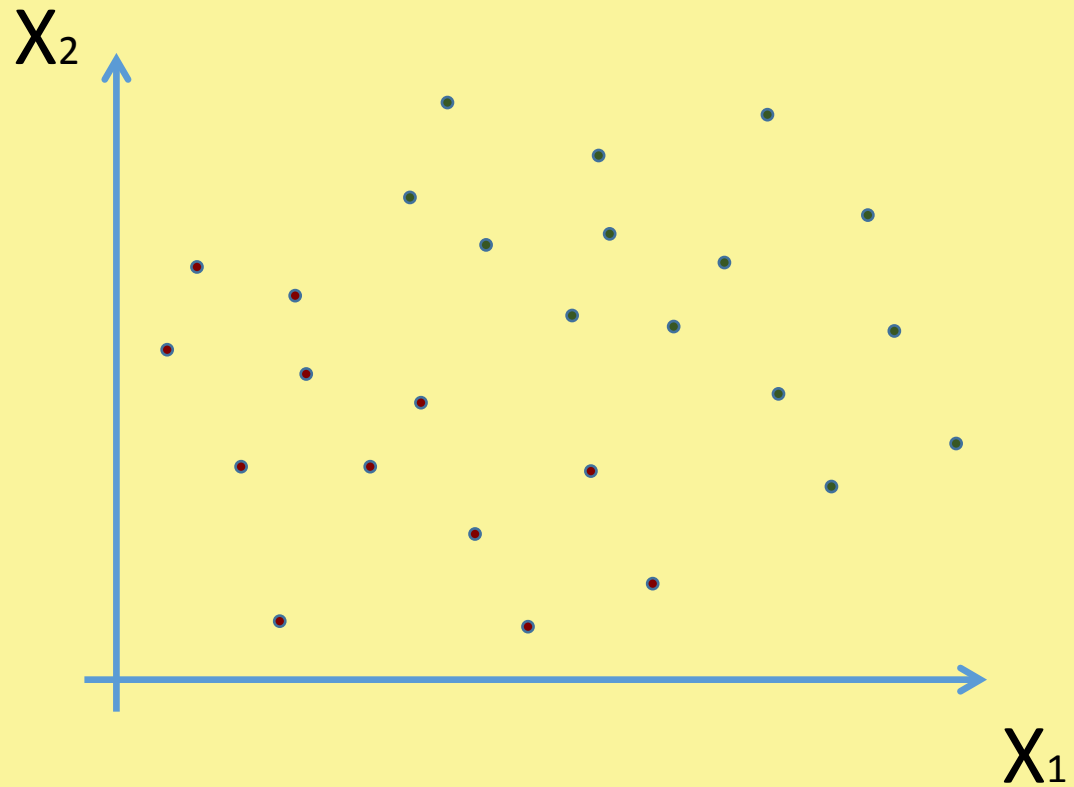# K-Nearest Neighbour Rule (k-NN Rule)
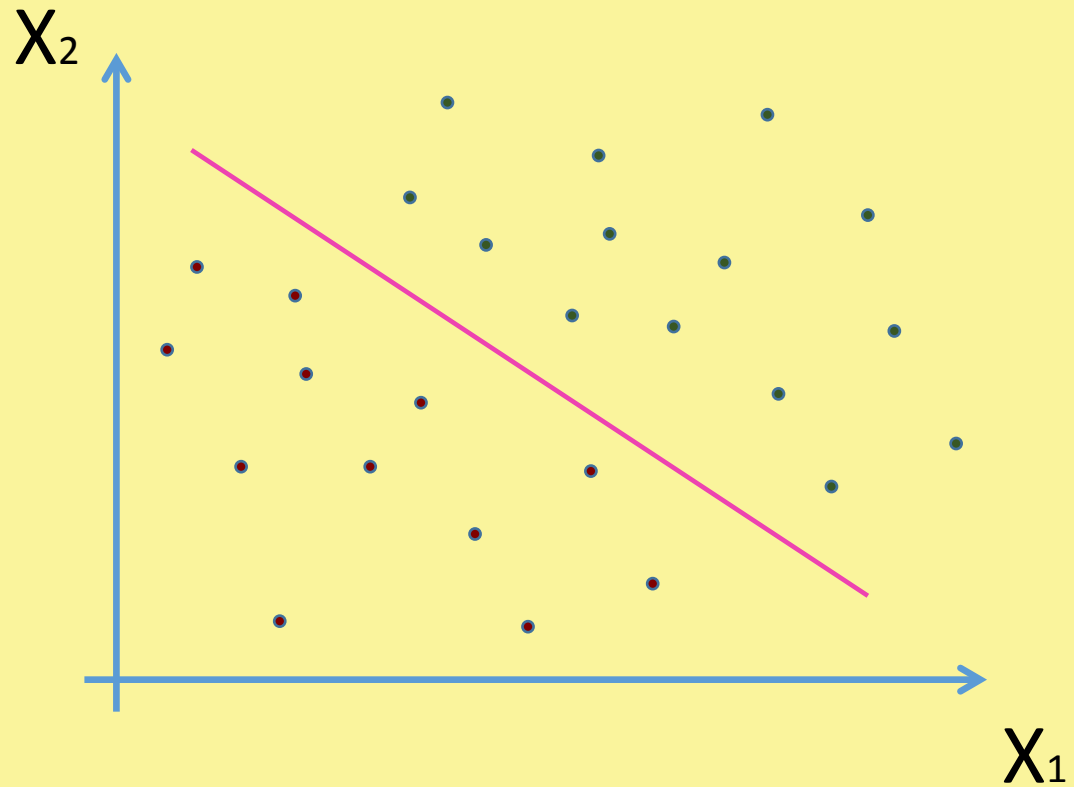

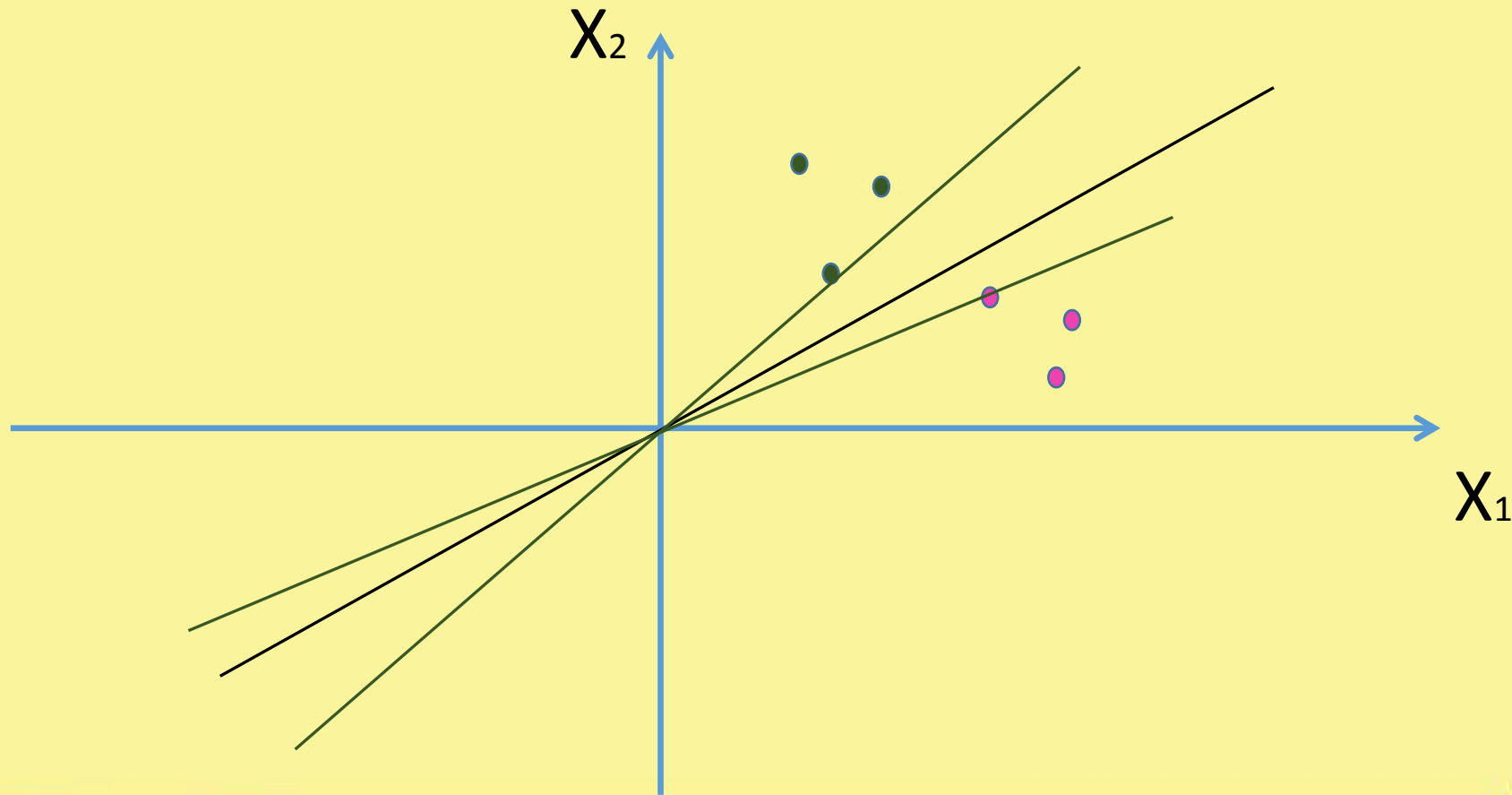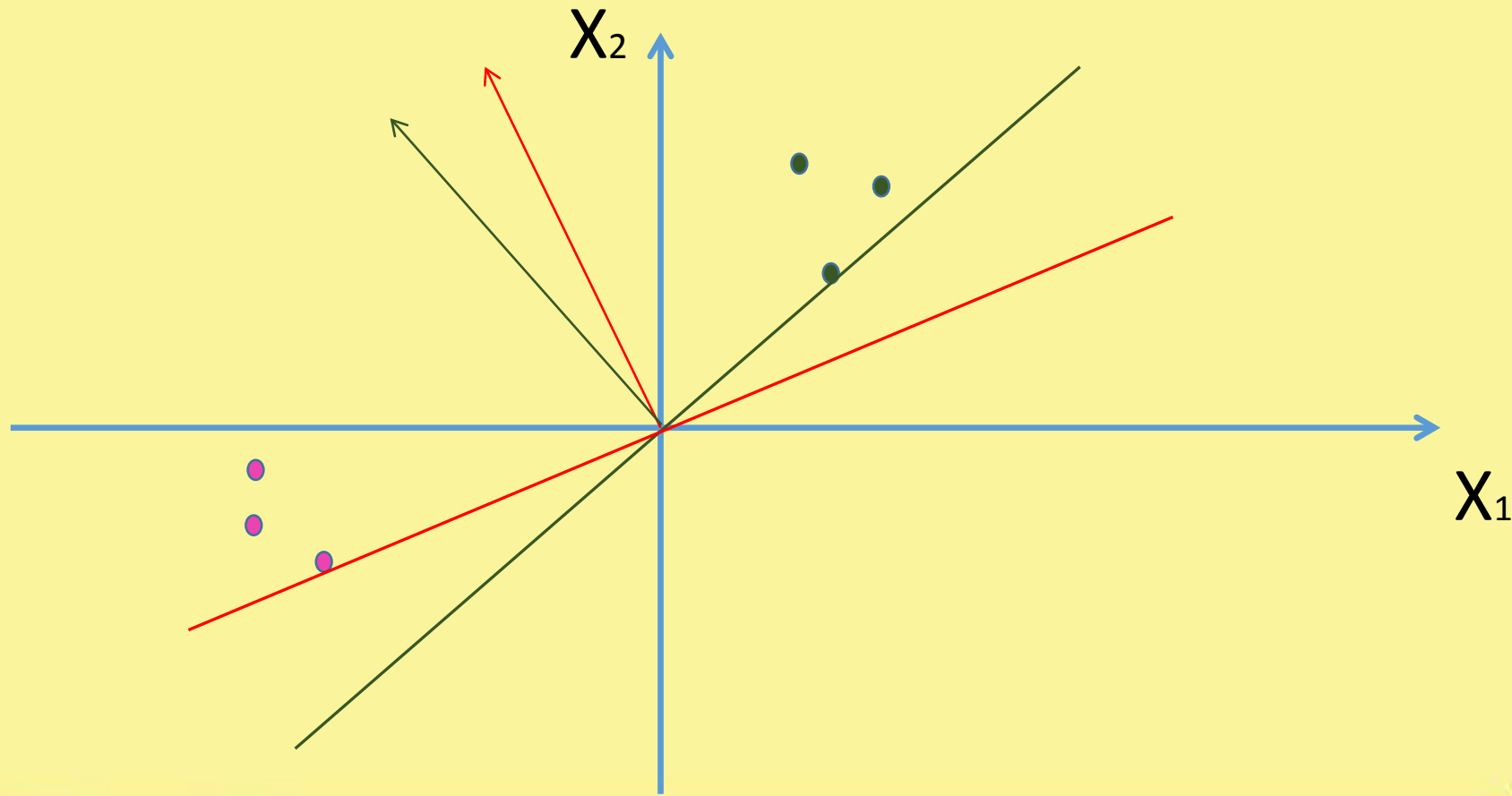
X_1

X_2
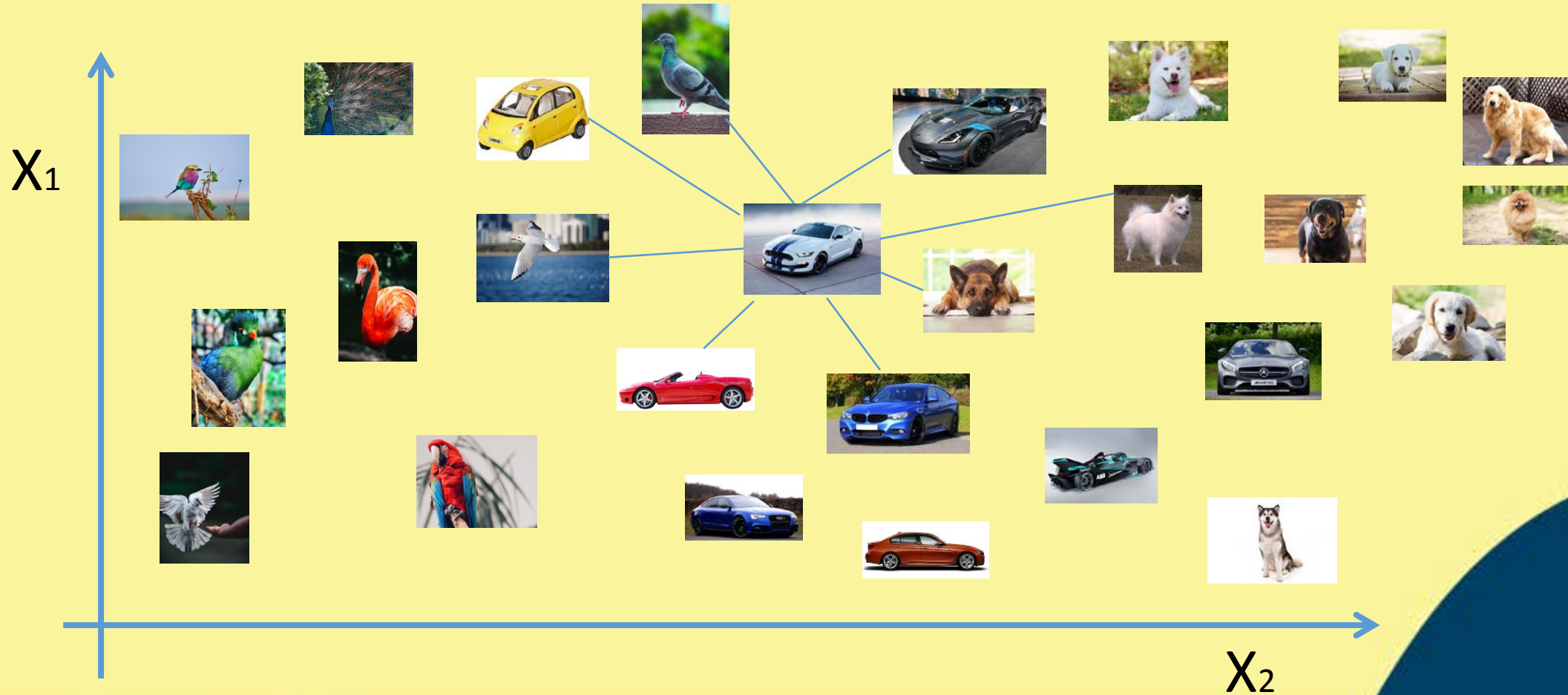
Image Source: Internet

Linear Classifier – 2 Class Problem

Linear Classifier – 2 Class Problem

Linear Classifier – 2 Class Problem

Linear Classifier – 2 Class Problem

Linear Classifier – 2 Class Problem

Linear Classifier – 2 Class Problem

NPTEL ONLINE CERTIFICATION COURSES

Thank you