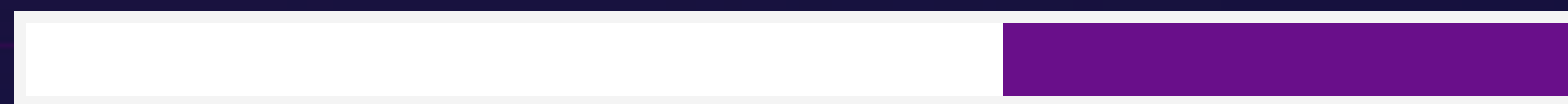




# UNSUPERVISED MACHINE LEARNING



PLAY

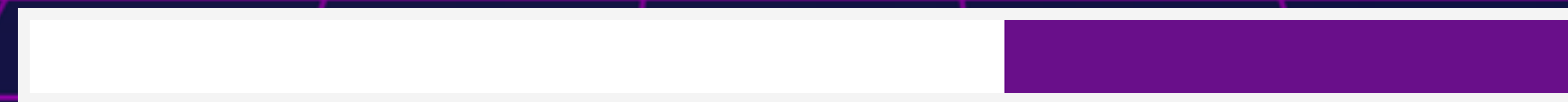
MENU


EXIT



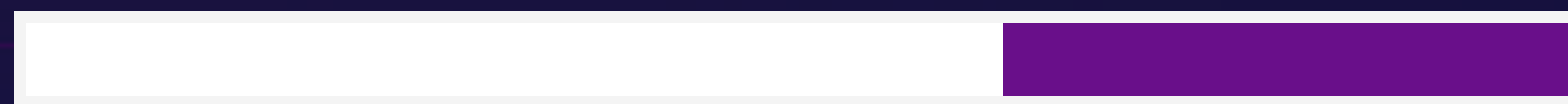
DAY 1: INTRODUCTION TO UNSUPERVISED  
MACHINE LEARNING AND SOME BASICS OF  
ADVANCED UNSUPERVISED LEARNING  
TECHNIQUES

DAY 2: ADVANCED UNSUPERVISED LEARNING  
TECHNIQUES AND CUSTOMER SEGMENTATION  
USING K-MEANS CLUSTERING PROJECT





# LET'S START



PLAY

MENU

EXIT

# INTRODUCTION TO UNSUPERVISED MACHINE LEARNING

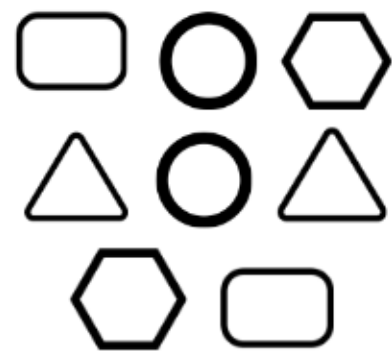


# WHAT IS UNSUPERVISED LEARNING

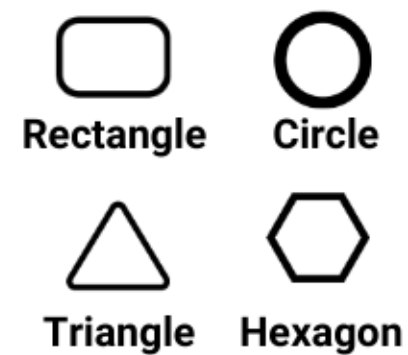
## Supervised Learning



Labeled Data



Labels



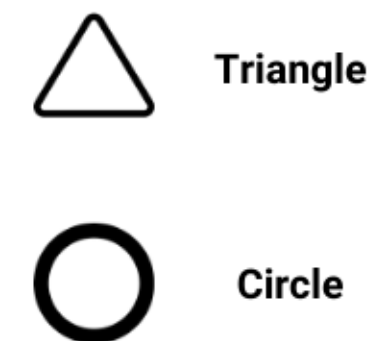
Machine



ML Model



Predictions

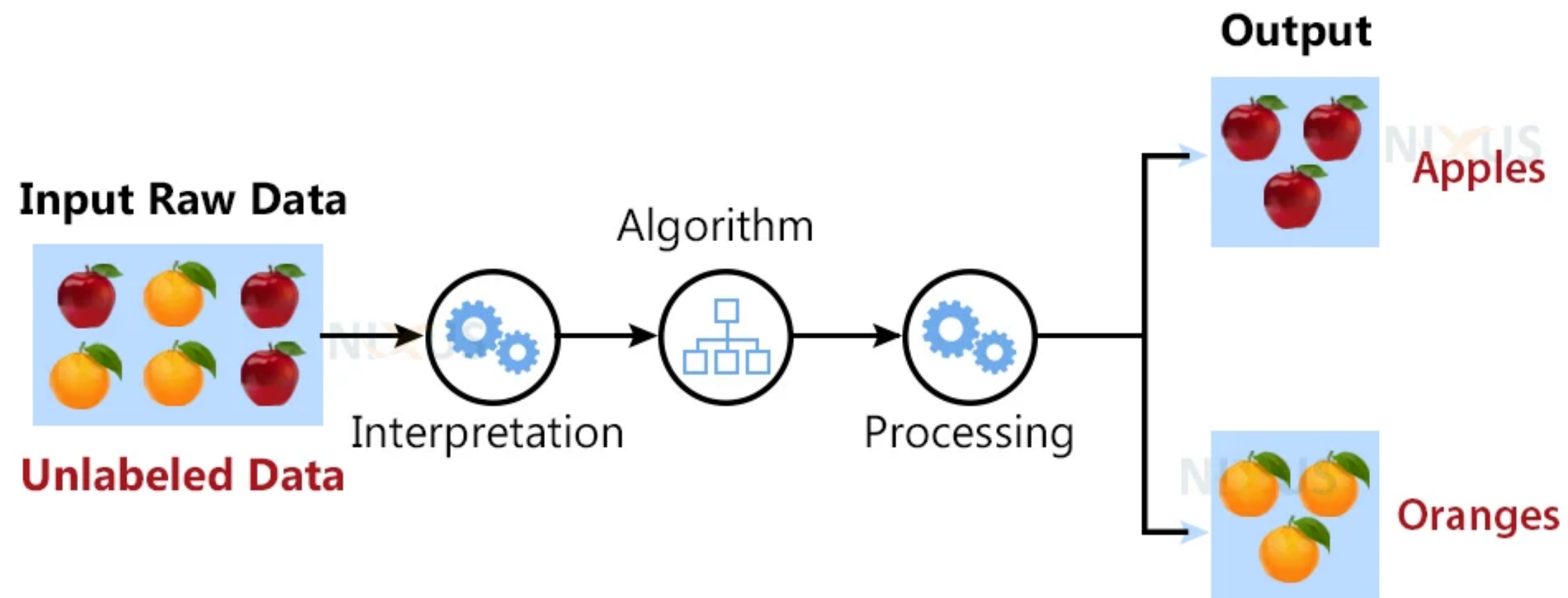


Test Data

EXIT

# WHAT IS UNSUPERVISED LEARNING

## Unsupervised Machine Learning



EXIT

# WHAT IS UNSUPERVISED LEARNING

## Unsupervised Learning Algorithms

### Clustering

- K-Means
- Polynomial
- Hierarchical
- Fuzzy C-Means

### Dimensionality Reduction

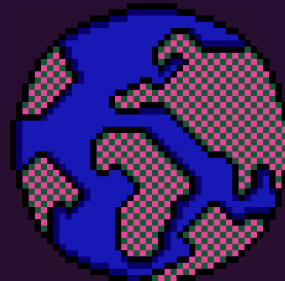
- Principal Component Analysis
- Kernel Principal Analysis

### Association (Data Mining)

- Apriori Algorithm
- Eclat Algorithm
- FP-Growth Algorithm

EXIT





# DAY 1



— CLUSTERING KMEANS AND HIERARCHICAL



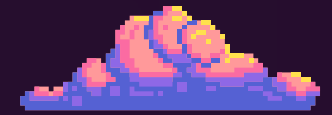
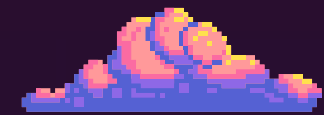
— PRINCIPAL COMPONENT ANALYSIS (PCA)



— APRIORI ALGORITHM

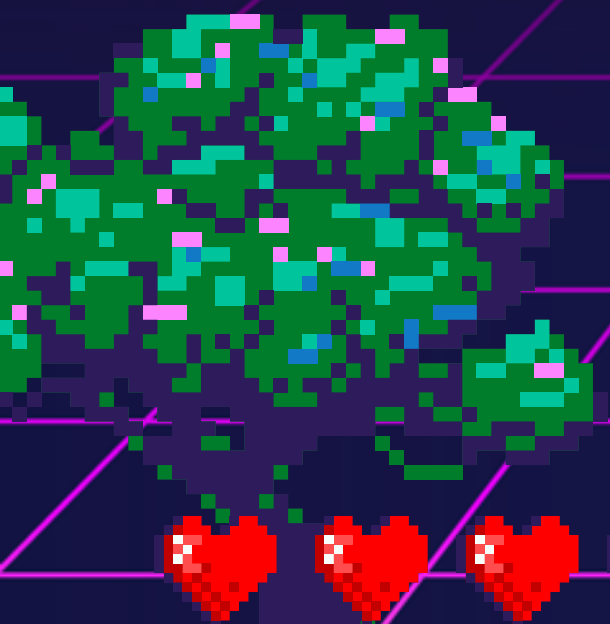
EXIT



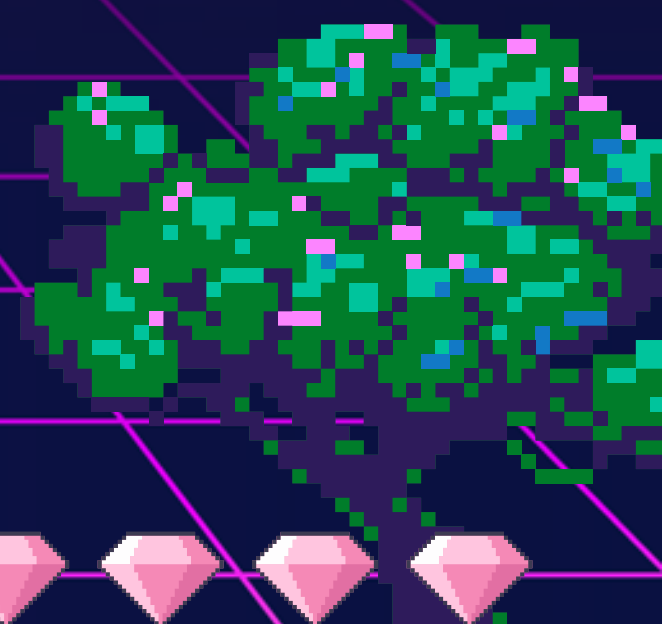


# REMAINING TOPICS FOR TOMMOROW

DAY 2: ADVANCED UNSUPERVISED LEARNING  
TECHNIQUES AND CUSTOMER SEGMENTATION  
USING K-MEANS CLUSTERING PROJECT



EXIT





# ADVANCED UNSUPERVISED LEARNING TECHNIQUES



AUTOENCODERS



T-DISTRIBUTED STOCHASTIC NEIGHBOR EMBEDDING



DBSCAN

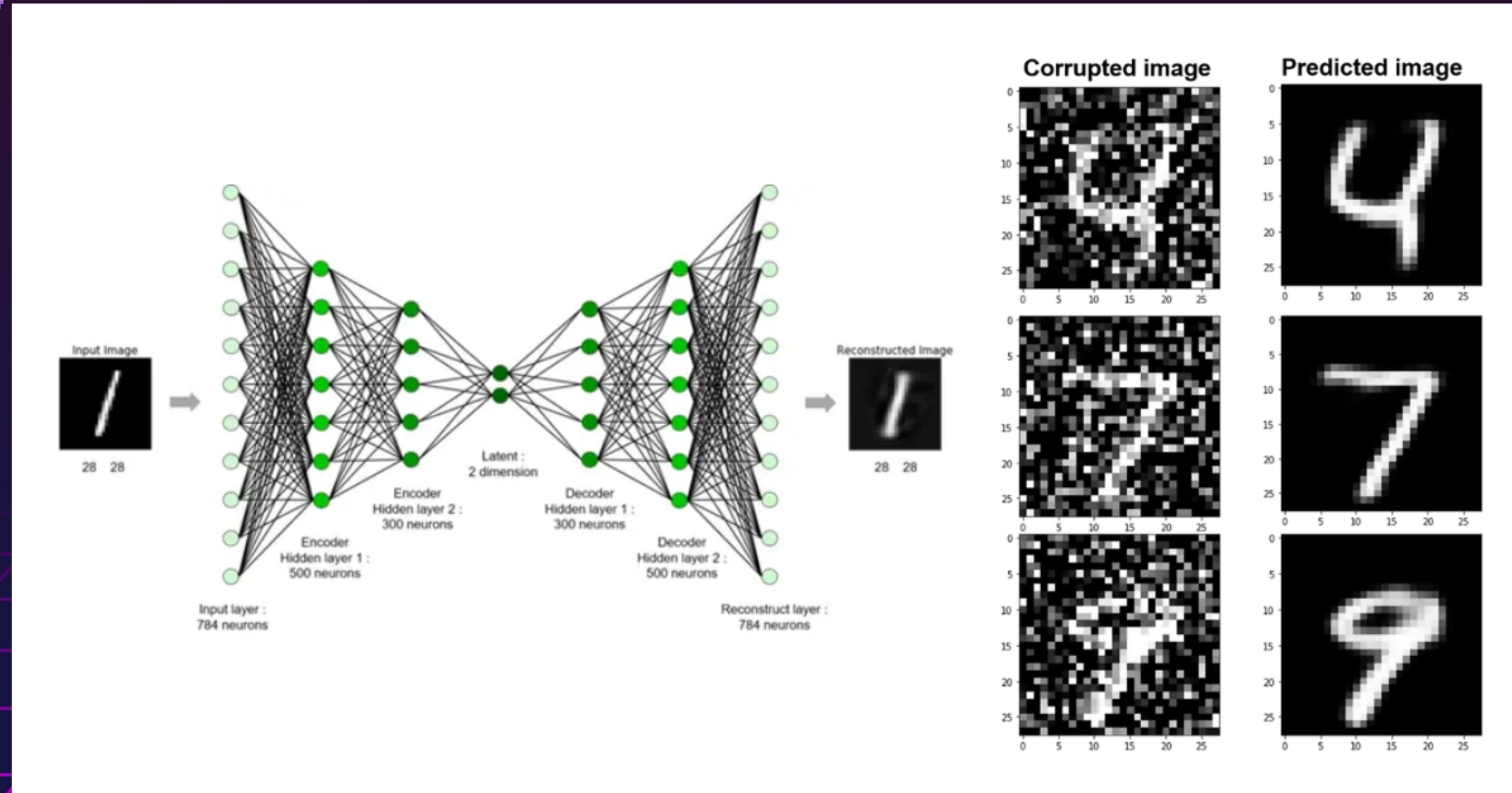


WORD EMBEDDINGS



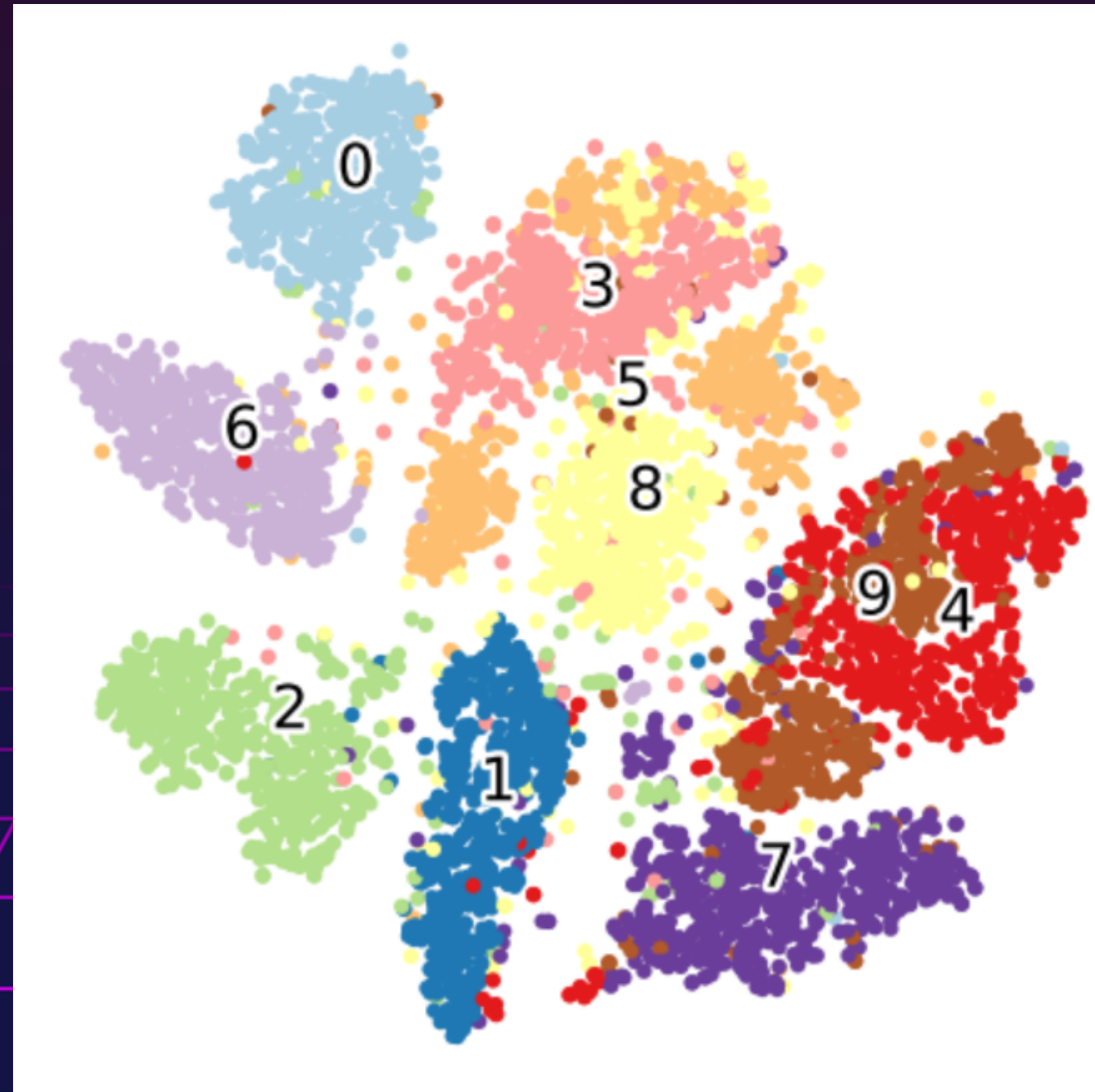
EXIT

# AUTOENCODERS

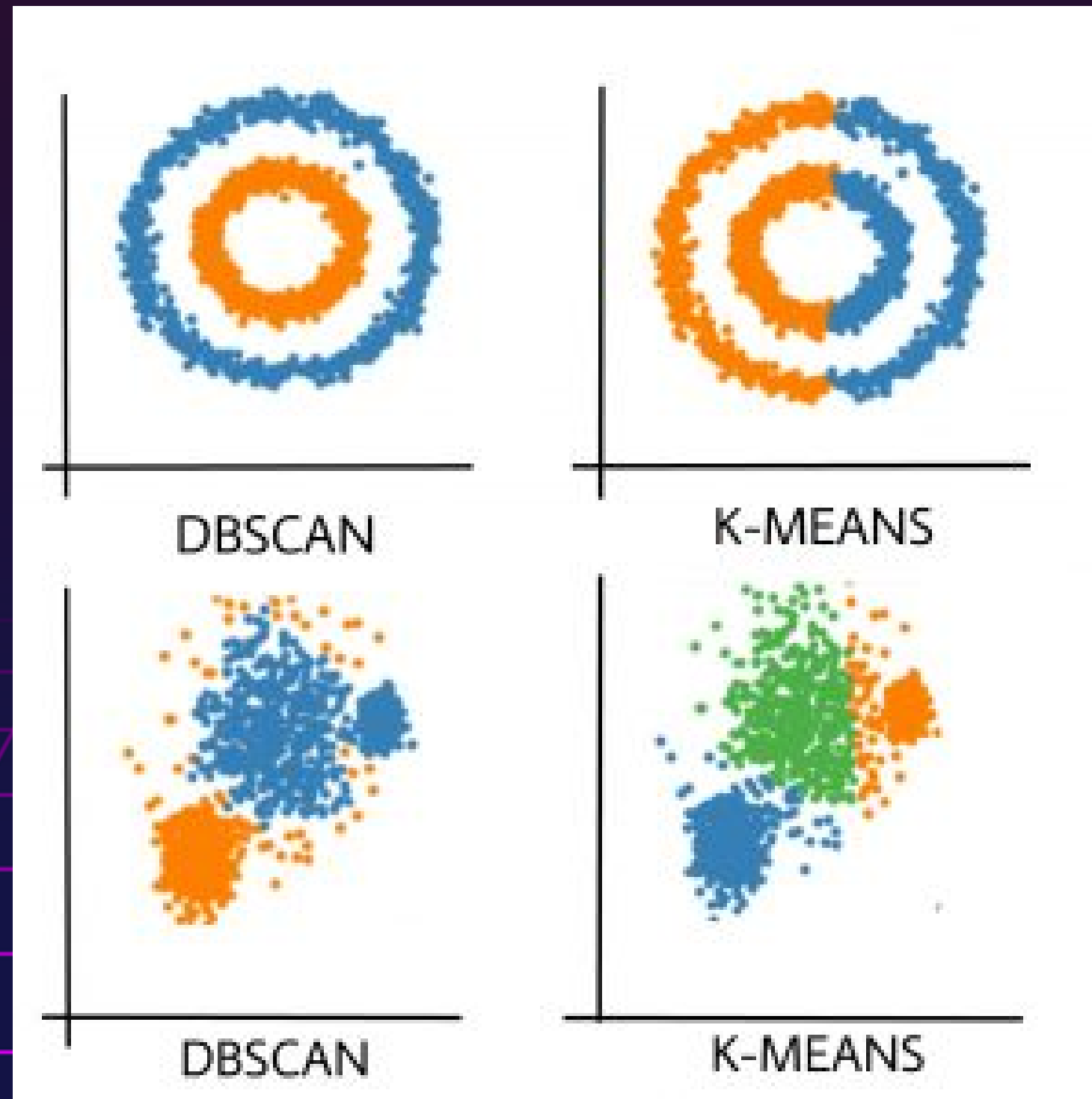


EXIT

# T-DISTRIBUTED STOCHASTIC NEIGHBOR EMBEDDING



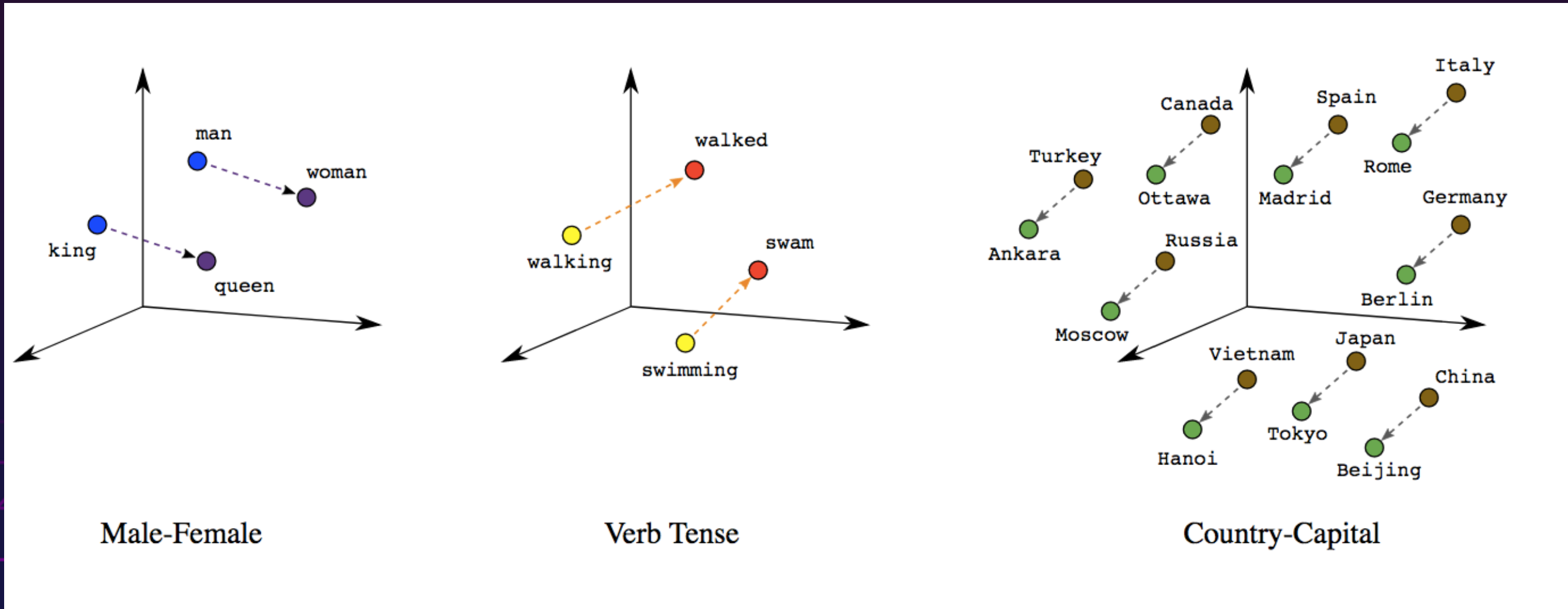
# DBSCAN




EXIT



# WORD EMBEDDING



EXIT



THANK YOU FOR  
LEARNING WITH US!

EXIT