

CS 7267

MACHINE LEARNING

PROJECT 1

UNSUPERVISED LEARNING

#### INSTRUCTOR

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**000123456**

**1. ABSTRACT**

In this project ................................................................................................

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**2. Test RESULTS**

**2.1 Clustering with K-means algorithm for kmtest dataset**

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| **(a)** | **(b)** |

**Figure 1:** (a) Original clustering, (b) K-means clustering result.

**2.2 Test Results for Clustering with K-means algorithm for iris dataset**

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| **(a)** | **(b)** |

**Figure 2:** (a) Original clustering, (b) K-means clustering result.

**3. CODES**

**3.1 Code for K-means algorithm for kmtest dataset**

% Name: MAHMUT KARAKAYA

% Number: 123456

% Project 1

close all;

clear;

clc;

d=2

N=100

X = [randn(N,d)+ones(N,d); randn(N,d)-ones(N,d)];

GT = [zeros(100,1);ones(100,1)];

figure, hold on

plot(X(:,1),X(:,2),'k.');

plot(X(GT==1,1),X(GT==1,2),'ro');

plot(X(GT==0,1),X(GT==0,2),'bx');

%Calculate the mean

mean(X(GT==1,:))

mean(X(GT==2,:))

**3.2 Code for K-means algorithm for iris dataset**

% Name: MAHMUT KARAKAYA

% Number: 123456

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X = [randn(N,d)+ones(N,d); randn(N,d)-ones(N,d)];

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