**Code:**

clc;

clear all;

close all;

X=[1 1.5; 1 4.5;2 1.5;2 3.5; 3 2.5;5 6];

[idx,C]=kmeans(X,2);

plot(X(idx==1,1),X(idx==1,2),'r.','MarkerSize',12)

hold on

plot(X(idx==2,1),X(idx==2,2),'b.','MarkerSize',12)

plot(C(:,1),C(:,2),'kx',...

'MarkerSize',12,'LineWidth',2);

plot (C(:,1),C(:,2),'ko',...

'MarkerSize',12,'LineWidth',2);

axis([0 7 0 7 ]);

legend('Cluster 1','Cluster 2','Centroids',...

'Location','NW')

title 'Cluster Assignments and Centroids'

hold off

**Output :**

