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\* @Course : CS620 Applied Algorithms

\* @Program : Clustering Algorithm

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import java.util.ArrayList;

public class ClusteringAlgorithm {

// Give Number of Clusters required to be 2

private static int NumofClusters = 2;

private static float mean1,mean2, oldmean1, oldmean2;

private int[] inputarray = {3,15,2,17,1,18,4,20};

private static ArrayList<Integer> Array1 = new ArrayList<Integer>();

private static ArrayList<Integer> Array2 = new ArrayList<Integer>();

// Function to Calculate Mean of Each Cluster

public void calculateMean(float old\_mean1,float old\_mean2)

{

int sum1 = 0, sum2 = 0;

float avg1, avg2, size1, size2;

size1 = Array1.size();

size2 = Array2.size();

oldmean1 = old\_mean1;

oldmean2 = old\_mean2;

for (int i=0; i< Array1.size(); i++)

{

sum1 += Array1.get(i);

}

avg1 = sum1 / size1;

for (int j=0; j< Array2.size(); j++)

{

sum2 += Array2.get(j);;

}

avg2 = sum2 / size2;

mean1 = avg1;

mean2 = avg2;

System.out.println("Mean 1 is : "+mean1);

System.out.println("Mean 2 is : "+mean2);

}

public void addElements()

{

}

// MAIN Function where program starts Execution

public static void main(String[] args) {

// TODO Auto-generated method stub

// Instantiate the Clustering Algorithm class

ClusteringAlgorithm ca = new ClusteringAlgorithm();

// Add Elements to Array1

Array1.add(3);

Array1.add(5);

Array1.add(2);

Array1.add(7);

Array1.add(1);

// Add Elements to Array2

Array2.add(2);

Array2.add(4);

Array2.add(6);

Array2.add(8);

Array2.add(10);

ca.calculateMean(oldmean1, oldmean2);

// if

}

}