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public class Main {

static int[][] N;

static final int F = 4;

public static void main(String[] args) {

int[][] A = { { 0, 5, 444, 444 }, { 50, 0, 15, 5 }, { 30, 444, 0, 15 },

{ 15, 444, 5, 0 } };

N = new int[Q][Q];

System.out.println(" find the shortest path of.");

printMatrix(A);

System.out.println("Shortest Path Matrix.");

printMatrix(FA(A));

System.out.println(" Matrix");

printMatrix(A);

}

public static int[][] FA(int[][] A) {

for (int k = 0; k < N; k++) {

for (int i = 0; i < N; i++) {

for (int j = 0; j < N; j++) {

if (A[i][k] + A[k][j] < A[i][j]) {

A[i][j] = A[i][k] + A[k][j];

N[i][j] = k;

}

}

}

}

return A;

}

public static int minimum(int i, int j) {

if (i > j) {

return j;

}

return i;

}

public static void Printing(int[][] Matrix) {

System.print("\n\t");

for (int j = 0; j < N; j++) {

System.print(j + "\t");

}

System.println();

for (int j = 0; j < 35; j++) {

System.print("-");

}

System.println();

for (int i = 0; i < N; i++) {

System.print(i + " |\t");

for (int j = 0; j < N; j++) {

System.out.print(Matrix[i][j]);

System.out.print("\t");

}

System.out.println("\n");

}

System.out.println("\n");

}

}