//declaring libraries that I need

#include <iostream>

#include <fstream>

#include <string>

#include <stdlib.h>

using namespace std;

int n,m,i,j;

//function showing condition equaled to number from menu

char showCondition(int x)

{

switch(x)

{ case 1: system("CLS");cout<<"Actualizeaza(prin substituire in fisierul de intrare) continutul zonelor"<<endl;

cout<<"de pe perimetrul(marginea) terenului;"; break;

case 2: system("CLS");cout<<"Exclude din planul terenului un rind/o coloana(marginal); pozitia rindului(nord/sud)"<<endl;

cout<<"/coloanei(vest/est) de exclus se va preciza de la tastatura";break;

case 3: system("CLS");cout<<"Determina indicii liniilor ce contin zone cu doza maximala de poluare"; break;

case 4: system("CLS");cout<<"Inscrie in tabloul liniar B[1...m], in ordinea ascendenta valorile /Dij/; datele se vor"<<endl;

cout<<"sorta prin metoda numarului";break;

case 5: system("CLS");cout<<"Determina doza medie de radiatie pe zonele intregului teren in studiu";break;

case 6: system("CLS");cout<<"Creeaza fisieul text ImparLin.txt in care se vor transcrie liniile impare ale fisierului de intrare"<<endl;

cout<<"Radiatii.in";break;

case 7: system("CLS");cout<<"Determina nr de patratele trasate pe diagonala terenului in studiu;";break;

case 8: system("CLS");cout<<"Rezolva problema: Un cercetator trebuie sa ajunga din zona [1,1] in zona [n,m]"<<endl;

cout<<"a terenului poluat in studiu. Trecerea dintr-un patratel in altul se poate efectua numai prin laturile"<<endl;

cout<<"adiacente. Este cunoscut faptul ca la parcurgerea patratelului [i,j] cercetatorul va primi o doza de radiatie de Dij"<<endl;

cout<<"unitati, doza totala reprezentind suna dozelor patratelelor parcurse. Alegind diferite drumuri, cercetatorul ar putea "<<endl;

cout<<"minimiza doza totala"<<endl;

cout<<"Elaborati un subprogram ce calculeaza doza totala minimia";break;

}

}

//function for showing menu

char showAvailableMenu (int c)

{

cout<<endl;

cout<<"Aceste sunt matricea cu care va propun sa facem citeva operatii: "<<endl;

cout<<"Alegeti unul din punctele de mai jos: "<<endl;

cout<<endl;

for(c=1;c<=8;c++)

cout<<c<<" ";

cout<<endl;

}

//function check if menu number is not valide

bool checkNumber(int x)

{

cin>>x;

if(x>8)

cout<<"Numarul nu apartine listei de meniu, te rugam sa compilezi din nou";

}

//basic programm starts here:|

int main()

{

//create file and equals it to variable: "myfile"

ifstream myfile;

myfile.open("Radiatii.in.txt");

//check if file is opened and read it

if (myfile.is\_open())

{

myfile>>n; //read from the file

myfile>>m; //also read from file

cout<<n<<" "<<m<<endl;//print n & m variables

cout<<endl;

/\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*/

//read from file matrixrix

int matrix[n][m];

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

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

myfile >> matrix[i][j];} }

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

cout << "|"; //just for beautifullness

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

if(j>0) cout << " ";

cout << matrix[i][j];

if(j==m-1) cout << "|";}

cout << endl;}

/\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*/

char show, printCondition;

bool checkChosenNumberFromMenu;

int varFor1Time, chosenNumber;

show = showAvailableMenu(varFor1Time);

checkChosenNumberFromMenu=checkNumber(chosenNumber);

printCondition = showCondition(checkChosenNumberFromMenu);

/\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*/

/\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*/

myfile.close(); //close the file

}

else {

cout<<"ERROR! FILE NOT FOUND!"<<endl;

}

cin.get();

return 0;

}