1.Max of rows

#include <stdio.h>

#define MAX\_ROWS 100

#define MAX\_COLS 100

int main() {

int rows, cols;

printf("Enter the number of rows: ");

scanf("%d", &rows);

printf("Enter the number of columns: ");

scanf("%d", &cols);

// Ensure the array size is within the maximum limits

if (rows > MAX\_ROWS || cols > MAX\_COLS) {

printf("Array size exceeds maximum limits.\n");

return 0;

}

// Declare the 2D array

int arr[MAX\_ROWS][MAX\_COLS];

// Prompt the user to enter the elements of the array

printf("Enter the elements of the array:\n");

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

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

printf("Enter element at position [%d][%d]: ", i, j);

scanf("%d", &arr[i][j]);

}

}

// Find the maximum element in each row

printf("Maximum elements in each row:\n");

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

int maxElement = arr[i][0]; // Assume the first element is the maximum

// Iterate through the row and update the maximum if a larger element is found

for (int j = 1; j < cols; j++) {

if (arr[i][j] > maxElement) {

maxElement = arr[i][j];

}

}

// Print the maximum element of the row

printf("Row %d: %d\n", i, maxElement);

}

return 0;

}

2.

Max of columns

#include <stdio.h>

#define MAX\_ROWS 100

#define MAX\_COLS 100

int main() {

int rows, cols;

printf("Enter the number of rows: ");

scanf("%d", &rows);

printf("Enter the number of columns: ");

scanf("%d", &cols);

// Ensure the array size is within the maximum limits

if (rows > MAX\_ROWS || cols > MAX\_COLS) {

printf("Array size exceeds maximum limits.\n");

return 0;

}

// Declare the 2D array

int arr[MAX\_ROWS][MAX\_COLS];

// Prompt the user to enter the elements of the array

printf("Enter the elements of the array:\n");

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

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

printf("Enter element at position [%d][%d]: ", i, j);

scanf("%d", &arr[i][j]);

}

}

// Find the maximum element in each column

printf("Maximum elements in each column:\n");

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

int maxElement = arr[0][j]; // Assume the first element is the maximum

// Iterate through the column and update the maximum if a larger element is found

for (int i = 1; i < rows; i++) {

if (arr[i][j] > maxElement) {

maxElement = arr[i][j];

}

}

// Print the maximum element of the column

printf("Column %d: %d\n", j, maxElement);

}

return 0;

}

3.

Min of cols

#include <stdio.h>

#define MAX\_ROWS 100

#define MAX\_COLS 100

int main() {

int rows, cols;

printf("Enter the number of rows: ");

scanf("%d", &rows);

printf("Enter the number of columns: ");

scanf("%d", &cols);

// Ensure the array size is within the maximum limits

if (rows > MAX\_ROWS || cols > MAX\_COLS) {

printf("Array size exceeds maximum limits.\n");

return 0;

}

// Declare the 2D array

int arr[MAX\_ROWS][MAX\_COLS];

// Prompt the user to enter the elements of the array

printf("Enter the elements of the array:\n");

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

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

printf("Enter element at position [%d][%d]: ", i, j);

scanf("%d", &arr[i][j]);

}

}

// Find the minimum element in each column

printf("Minimum elements in each column:\n");

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

int minElement = arr[0][j]; // Assume the first element is the minimum

// Iterate through the column and update the minimum if a smaller element is found

for (int i = 1; i < rows; i++) {

if (arr[i][j] < minElement) {

minElement = arr[i][j];

}

}

// Print the minimum element of the column

printf("Column %d: %d\n", j, minElement);

}

return 0;

}

4.

Min of rows

#include <stdio.h>

#define MAX\_ROWS 100

#define MAX\_COLS 100

int main() {

int rows, cols;

printf("Enter the number of rows: ");

scanf("%d", &rows);

printf("Enter the number of columns: ");

scanf("%d", &cols);

// Ensure the array size is within the maximum limits

if (rows > MAX\_ROWS || cols > MAX\_COLS) {

printf("Array size exceeds maximum limits.\n");

return 0;

}

// Declare the 2D array

int arr[MAX\_ROWS][MAX\_COLS];

// Prompt the user to enter the elements of the array

printf("Enter the elements of the array:\n");

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

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

printf("Enter element at position [%d][%d]: ", i, j);

scanf("%d", &arr[i][j]);

}

}

// Find the minimum element in each row

printf("Minimum elements in each row:\n");

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

int minElement = arr[i][0]; // Assume the first element is the minimum

// Iterate through the row and update the minimum if a smaller element is found

for (int j = 1; j < cols; j++) {

if (arr[i][j] < minElement) {

minElement = arr[i][j];

}

}

// Print the minimum element of the row

printf("Row %d: %d\n", i, minElement);

}

return 0;

}