C Program to find transpose of matrix

Algorithm

Step 1 : Start

Step 2 : input r, c

Step 3 : Enter array elements

   3.1 : for (i=0; i<r; i++)

   3.2 : for (j=0; j<c; j++)

   3.3 : input a[i][j]

   3.4 : repeat 3.1, 3.2, 3.3 untill condition becomes false

Step 4 : print elements of the matrix are

   4.1 : for (i=0; i<r; i++)

   4.2 : for (j=0; j<c; j++)

   4.3 : print a[i][j]

   4.4 : repeat 4.1, 4.2, 4.3 untill condition becomes false

Step 5 : Transpose of a matrix is

   5.1 : for (i=0; i<r; i++)

   5.2 : for (j=0; j<c; j++)

   5.3 : b[i][j] = a[i][j]

   5.4 : print a[j][i]

   5.5 : repeat 5.1, 5.2, 5.3 & 5.4 untill condition becomes false

   5.6 : print ("\n")

   5.7 : Repeat 5.1 untill condition becomes false

Step 6 : Stop

Camlin

Flowchart:

Start

input r,c

Enter array elements

False — for(i=0; i<r; i++) — False

↓ True

for(j=0; j<c; j++)

↓ True

input a[i][j]

Print elements of a matrix are

False — for(i=0; i<r; i++) — False

↓ True

for(j=0; j<c; j++)

↓ True

Print a[i][j]

print transpose of a matrix is

for(i=0; i<r; i++)

↓ True

for(j=0; j<c; j++) — False

↓ True

b[i][j] = a[j][i]

↓

Print a[j][i]

print("\n")

Stop