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4AL19CS035

Algorithm

Step1: Start

Step2: Input r, c

Step3: Display Enter matrix Elements

for(i=0; i<r; i++)
for(j=0; j<c; j++)
input a[i][j]

Step 4: Display Entered matrix

for(i=0; i<r; i++)
for(j=0; j<c; j++)
output a[i][j]
if (j==c-1)
output \n

Step5: for(i=0; i<r; i++)
for(j=0; j<c; j++)
t[j][i] = a[i][j]

Step6: Display Transpose of matrix

for(i=0; i<c; i++)
for(j=0; j<r; j++)
output t[i][j]
if (j==r-1)
output \n

Step7: Stop

flowchart

Start

Input r, c

Enter matrix Elements

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

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

input a[i][j]

Entered matrix

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

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

output a[i][j]

if (j==c-1)

True

n

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

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

t[j][i] = a[i][j]

Flowchart:

- Start (circle)
- Transpose of the matrix
- for(i=0; i<c; i++) — False branch to left
- for(j=0; j<r; j++) — True branch to right
- output t.cr[i][j]
- if(j==r-1)
- \n
- Stop