

## C Program to find transpose of matrix

### Algorithm

Step 1: start

Step 2: Input  $n, m$

Step 3: Enter array elements

Step 3.1: for ( $i=0; i < n; i++$ )

Step 3.2: for ( $j=0; j < m; j++$ )

Step 3.3: Input  $a[i][j]$

Step 3.4: Repeat steps 3.1, 3.2, 3.3 until test condition becomes false.

Step 4: print elements of matrix  $a$

Step 4.1: for ( $i=0; i < n; i++$ )

Step 4.2: for ( $j=0; j < m; j++$ )

Step 4.3: print  $a[i][j]$

Step 4.4: Repeat 4.1, 4.2, 4.3 until test condition becomes false.

Step 5: Transpose of matrix  $a$

Step 5.1: for ( $i=0; i < n; i++$ )

Step 5.2: for ( $j=0; j < m; j++$ )

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

Step 5.4: print  $a[j][i]$

Step 5.5: Repeat step 5.2, 5.3, 5.4 until test condition becomes false.

Step 5.6: print ("n")

Step 5.7: Repeat step 5.1 until the condition becomes false.

Step 6: stop

# Flowchart

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