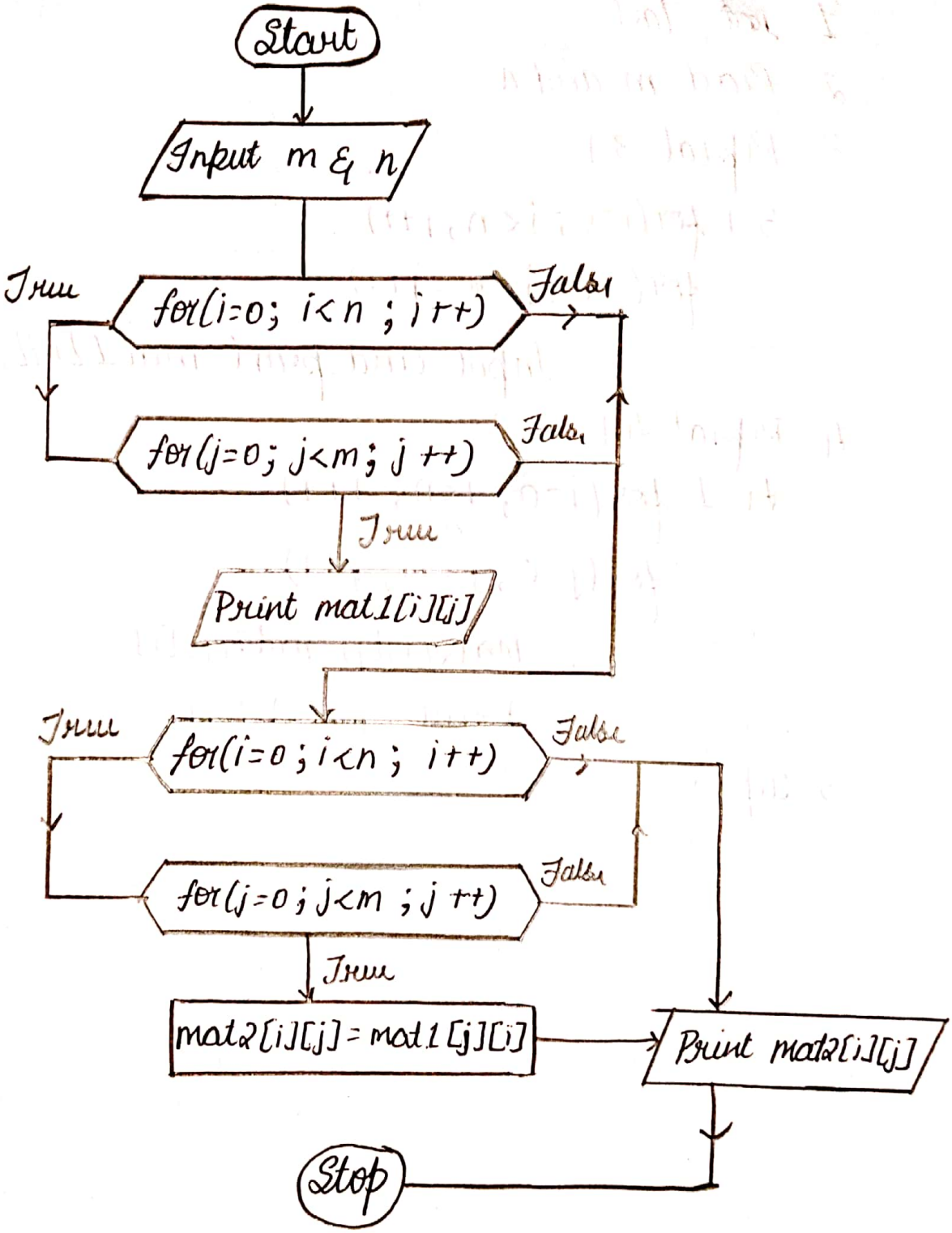
Algorithm

1. Start
2. Read m and n
3. Repeat 3.1
   3.1 for(i=0; i<n; i++)
       for(j=0; j<m; j++)
           Input and print mat1[i][j]
4. Repeat 4.1
   4.1 for(i=0; i<n; i++)
       for(j=0; j<m; j++)
           mat2[i][j] = mat1[j][i]
           Print mat2[i][j]
5. Stop.

Flowchart :


Start
Input m & n
for(i=0; i<n ; i++)
True
False
for(j=0; j<m; j++)
False
True
Print mat1[i][j]
for(i=0; i<n; i++)
True
False
for(j=0; j<m ; j++)
False
True
mat2[i][j] = mat1[j][i]
Print mat2[i][j]
Stop

```c
#include<stdio.h>
int main()
{
    int mat1[10][10],mat2[10][10],m,n,i,j;
    printf("Enter the size of the row:\n");
    scanf("%d", &n);
    printf("Enter the size of the column:\n");
    scanf("%d", &m);
    printf("Enter the elements of the matrix:\n");
    for(i=0;i<n;i++)
    {
        for(j=0;j<m;j++)
        {
            scanf("%d", &mat1[i][j]);
            printf("%d\t", mat1[i][j]);
        }
        printf("\n");
    }
    printf("The transpose of the matrix is:\n");
    for(i=0;i<n;i++)
    {
        for(j=0;j<m;j++)
        {
```

0:0

Open File

Custom Input

```
3 3
2 3 5 6 6 5 2 6 4
```

Status Successfully executed Date 2020-06-13 11:49:50 Time 0 sec

Input

```
3 3
2 3 5 6 6 5 2 6 4
```

Output

```
2   3   5
6   6   5
2   6   4
The transpose of the matrix is:
2   6   2
3   6   6
5   5   4
```