

**Write a C program to check if a given matrix is symmetric or not.**

**Code-**

```
#include <stdio.h>
int main()
{
    int i,j,m,n,c=0;
    printf("Write no. of rows and columns for the matrix");
    scanf("%d%d",&m,&n);
    int a[m][n],b[n][m];
    printf("Write elements of the matrix");
    for(i=0;i<m;i++)
    {
        for(j=0;j<n;j++)
            scanf("%d",&a[i][j]);
    }
    if(m==n)
    {
        for(i=0;i<m;i++)
        {
            for(j=0;j<n;j++)
                b[j][i]=a[i][j];
        }
        for(i=0;i<m;i++)
        {
            for(j=0;j<n;j++)
            {
                if(b[i][j]==a[i][j])
                    c++;
            }
        }
        if(c==m*n)
            printf("Symmetric matrix");
        else printf("Not a symmetric matrix");
    }
    else printf("Not a symmetric matrix");
    return 0;
}
```

**Input-**

Write no. of rows and columns for the matrix2

2

Write elements of the matrix4

1

1

2

**Output-**  
Symmetric matrix