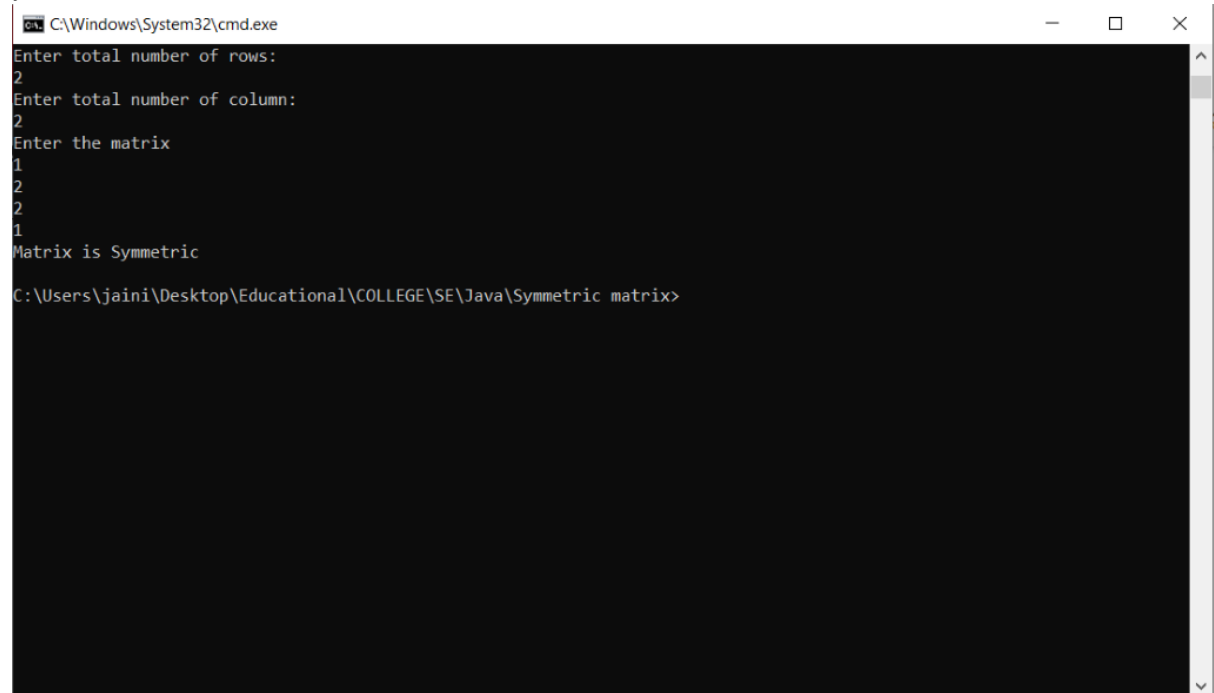


# Symmetric Matrix using Bufffer Reader

```
import java.util.Scanner;
import java.io.*;
class main1
{
    public static void main(String args[]) throws Exception
    {
        int i,j,r,c,flag=0;
        //Scanner sc = new Scanner(System.in);
        InputStreamReader isr=new InputStreamReader(System.in);
        BufferedReader br=new BufferedReader(isr);
        System.out.println("Enter total number of rows:");
        //r = sc.nextInt();
        r=Integer.parseInt(br.readLine());
        System.out.println("Enter total number of column:");
        //c = sc.nextInt();
        c=Integer.parseInt(br.readLine());
        int a[][]= new int[r][c];
        if(c!=r)
        {
            System.out.println("Rows and column must be equal");
        }
        else
        {
            System.out.println("Enter the matrix");
            for (i=0;i<r;i++)
            {
                for(j=0;j<c;j++)
                {
                    //a[i][j]=sc.nextInt();
                    a[i][j]=Integer.parseInt(br.readLine());
                }
            }
            for(i=0;i<r;i++)
            {
                for(j=0;j<c;j++)
                {
                    if(a[i][j]!=a[j][i])
                    {
                        flag=1;
                        break;
                    }
                }
            }
            if(flag==1)
            {
                System.out.println("Matrix is Not Symmetric");
            }
            else
            {

```

```
        System.out.println("Matrix is Symmetric");  
    }  
}  
}
```



The screenshot shows a Windows command prompt window titled "C:\Windows\System32\cmd.exe". The user has entered the following commands and received the following output:

```
Enter total number of rows:  
2  
Enter total number of column:  
2  
Enter the matrix  
1  
2  
2  
1  
Matrix is Symmetric  
C:\Users\jaini\Desktop\Educational\COLLEGE\SE\Java\Symmetric matrix>
```

The output indicates that the matrix is symmetric. The matrix entered was:

$$\begin{bmatrix} 1 & 2 \\ 2 & 1 \end{bmatrix}$$