Co1-4

```
import java.util.Scanner;

class Matrix
{
    int order;
    int[][] matrix;

    Matrix(int order)
    {
        this.order = order;
        matrix = new int[order][order];
    }

    void MatrixCreation(Scanner read)
    {
        System.out.println("Enter the
elements in "+ order+"x"+order+" matrix : ");
        for(int i=0; i<order; i++)
        {
```

```
            for (int j=0; j<order; j++)
            {
                matrix[i][j] = read.nextInt();
            }
        }
    }
    void isSymmetricMatrix()
    {
        for(int i=0; i<order; i++)
        {
            for (int j=0; j<order; j++)
            {
                if (matrix[i][j] != matrix[j][i])
                {
                    System.out.println("Given
matrix is not a symmetric metrix");
                    return;
                }
            }
        }
        System.out.println("Given metrix is a
```

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symmetric metrix");
    }
}
public class SymmetricMatrix
{
    public static void main(String[] arg)
{
        int order;
        Scanner read = new
Scanner(System.in);
        System.out.print("Enter the order of
sqare metrix : ");
        order = read.nextInt();
        Matrix m = new Matrix(order);
        m.MatrixCreation(read);
        m.isSymmetricMatrix();
    }
}
```

Output :

Enter the order of sqare metrix : 2

Enter the elements in 2x2 matrix :
2 4
4 1

Given metrix is a symmetric metrix