

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++)
```

```

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
symmetric metrix");

}

```

```
System.out.println("Given metrix is a  
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 square metrix:2

Enter the elements in 2x2 matrix:

3 6

6 2

Given metrix is a symmetric metrix