```
import java.util.Scanner;
public class MatrixAddition {
public static void main(String[] args) {
Scanner scanner = new Scanner(System.in);
System.out.print("Enter the order of matrices (N): ");
int N = scanner.nextInt();
int[][] matrixA = new int[N][N];
int[][] matrixB = new int[N][N];
System.out.println("Enter elements of matrix A:");
inputMatrixElements(matrixA, scanner);
System.out.println("Enter elements of matrix B:");
inputMatrixElements(matrixB, scanner);
System.out.println("Matrix A:");
printMatrix(matrixA);
System.out.println("Matrix B:");
printMatrix(matrixB);
int[][] sumMatrix = addMatrices(matrixA, matrixB);
System.out.println("Sum of Matrix A and Matrix B:");
printMatrix(sumMatrix);
scanner.close();
}
private static void inputMatrixElements(int[][] matrix, Scanner scanner) {
int N = matrix.length;
for (int i = 0; i < N; i++) {
for (int j = 0; j < N; j++) {
System.out.print("Enter element at position [" + i + "][" + j + "]: ");
matrix[i][j] = scanner.nextInt();
}
} }
```

```
private static int[][] addMatrices(int[][] matrixA, int[][] matrixB) {
int N = matrixA.length;
int[][] sumMatrix = new int[N][N];
for (int i = 0; i < N; i++) {
for (int j = 0; j < N; j++) {
sumMatrix[i][j] = matrixA[i][j] + matrixB[i][j];
}
}
return sumMatrix;
}
private static void printMatrix(int[][] matrix) {
int N = matrix.length;
for (int i = 0; i < N; i++) {
for (int j = 0; j < N; j++) {
System.out.print(matrix[i][j] + " ");
}
System.out.println();
}
System.out.println();
}
}
```

Output: Enter the order of matrices (N): 2

Enter elements of matrix A:

Enter element at position [0][0]: 1

Enter element at position [0][1]: 2

Enter element at position [1][0]: 3

Enter element at position [1][1]: 4

Enter elements of matrix B:

Enter element at position [0][0]: