import java.io.\*;

class All

{

int i,j,k,s,temp;

int a[][]=new int[3][3];

int b[][]=new int[3][3];

int c[][]=new int[3][3];

DataInputStream in=new DataInputStream(System.in);

void getdata()throws Exception

{

System.out.println("Enter the elements of matrix A\n");

for(i=0;i<3;i++)

{

for(j=0;j<3;j++)

{

a[i][j]=Integer.parseInt(in.readLine());

}

}

System.out.println("Enter the elements of matrix B\n");

for(i=0;i<3;i++)

{

for(j=0;j<3;j++)

{

b[i][j]=Integer.parseInt(in.readLine());

}

}

}

void addition()

{

for(i=0;i<3;i++)

{

for(j=0;j<3;j++)

{

c[i][j]=a[i][j]+b[i][j];

}

}

System.out.println("Addition of two matrix A and matrix B is:\n");

for(i=0;i<3;i++)

{

for(j=0;j<3;j++)

{

System.out.print(c[i][j]+"\t");

}

System.out.println();

}

}

void multiplication()

{

for(i=0;i<3;i++)

{

for(j=0;j<3;j++)

{

for(k=0;k<3;k++)

{

s=s+a[i][k]\*b[k][j];

}

c[i][j]=s;

}

}

System.out.println("Multiplication of two matrix A and matrix B is:\n");

for(i=0;i<3;i++)

{

for(j=0;j<3;j++)

{

System.out.print(c[i][j]+"\t");

}

System.out.println();

}

}

void transpose()

{

for(i=0;i<3;i++)

{

for(j=0;j<3;j++)

{

if(i<j)

{

temp=a[i][j];

a[i][j]=a[j][i];

a[j][i]=temp;

}

}

}

System.out.println("Transpose of Matrix A is:\n");

for(i=0;i<3;i++)

{

for(j=0;j<3;j++)

{

System.out.print(a[i][j]+"\t");

}

System.out.println();

}

for(i=0;i<3;i++)

{

for(j=0;j<3;j++)

{

if(i<j)

{

temp=b[i][j];

b[i][j]=b[j][i];

b[j][i]=temp;

}

}

}

System.out.println("Transpose of Matrix B is:\n");

for(i=0;i<3;i++)

{

for(j=0;j<3;j++)

{

System.out.print(b[i][j]+"\t");

}

System.out.println();

}

}

}

class Main

{

public static void main(String args[])throws Exception

{

int o;

All a=new All();

DataInputStream in=new DataInputStream(System.in);

a.getdata();

do

{

System.out.println("Enter your choice\n1: ADD\n2: MULTIPLY\n3: TRANSPOSE\n4: EXIT");

o=Integer.parseInt(in.readLine());

switch(o)

{

case 1:a.addition();

break;

case 2:a.multiplication();

break;

case 3:a.transpose();

break;

case 4:break;

default:System.out.println("Invalid input");

break;

}

}while(o!=4);

}

}

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*OUTPUT\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

inft@inft-ThinkCentre-E73:~$ cd Desktop

inft@inft-ThinkCentre-E73:~/Desktop$ javac Main.java

Note: Main.java uses or overrides a deprecated API.

Note: Recompile with -Xlint:deprecation for details.

inft@inft-ThinkCentre-E73:~/Desktop$ java Main

Enter the elements of matrix A

3

4

6

2

5

7

3

4

5

Enter the elements of matrix B

4

7

5

7

5

7

4

8

6

Enter your choice

1: ADD

2: MULTIPLY

3: TRANSPOSE

4: EXIT

1

Addition of two matrix A and matrix B is:

7 11 11

9 10 14

7 12 11

Enter your choice

1: ADD

2: MULTIPLY

3: TRANSPOSE

4: EXIT

2

Multiplication of two matrix A and matrix B is:

64 153 232

303 398 485

545 626 699

Enter your choice

1: ADD

2: MULTIPLY

3: TRANSPOSE

4: EXIT

3

Transpose of Matrix A is:

3 2 3

4 5 4

6 7 5

Transpose of Matrix B is:

4 7 4

7 5 8

5 7 6

Enter your choice

1: ADD

2: MULTIPLY

3: TRANSPOSE

4: EXIT

4