```
14.import java.util.Scanner;
class matrixmultiplication
{
   public static void main(String args[]){
      int row1, col1, row2, col2;
      Scanner s = new Scanner(System.in);
      System.out.print("Enter number of rows in first matrix:");
      row1 = s.nextInt();
      System.out.print("Enter number of columns in first matrix:");
      col1 = s.nextInt();
      System.out.print("Enter number of rows in second matrix:");
      row2 = s.nextInt();
      System.out.print("Enter number of columns in second matrix:");
      col2 = s.nextInt();
      if (col1 != row2) {
         System.out.println("Matrix multiplication is not possible");
      }
      else {
         int a[][] = new int[row1][col1];
         int b[][] = new int[row2][col2];
         int c[][] = new int[row1][col2];
         System.out.println("Enter values for matrix A : \n");
         for (int i = 0; i < row1; i++) {
            for (int j = 0; j < col1; j++)
               a[i][j] = s.nextInt();
         }
         System.out.println("Enter values for matrix B : \n");
         for (int i = 0; i < row2; i++) {
            for (int j = 0; j < col2; j++)
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            b[i][j] = s.nextInt();
        }
        System.out.println("Matrix multiplication is : \n");
        for(int i = 0; i < row1; i++) {
           for(int j = 0; j < col2; j++){
              c[i][j]=0;
              for(int k = 0; k < col1; k++){
                 c[i][j] += a[i][k] * b[k][j];
              }
              System.out.print(c[i][j] + " ");
           }
           System.out.println();
        }
     }
  }
}
```

Output

```
java -cp /tmp/TEUU9bsAuN matrixmultiplication

Enter number of rows in first matrix:2
Enter number of columns in first matrix:2
Enter number of rows in second matrix:2
Enter number of columns in second matrix:2
Enter values for matrix A :

12
23
34
56
Enter values for matrix B :

56S
12
34
23
Matrix multiplication is :
1454 673
3808 1696
23
```