

//JAVA Program for Matrix Multiplication

```
import java.io.*;
import java.util.*;
import java.lang.*;
class matrix
{
    public static void main(String a[])
    {

        int m,n,o,p,i,j,k;
        try
        {
            DataInputStream O = new DataInputStream(System.in);
            System.out.println("Enter the order of 1st matrix");
            String s=O.readLine();
            m=Integer.parseInt(s);
            s=O.readLine();
            n=Integer.parseInt(s);
            int A[][]=new int[m][n];
            System.out.println("Enter the Elements");
            for(i=0;i<m;i++)
            {
                for(j=0;j<n;j++)
                {
                    s=O.readLine();
                    A[i][j]=Integer.parseInt(s);
                }
            }
            System.out.println("Enter the order of 2nd matrix");
            s=O.readLine();
            o=Integer.parseInt(s);
            s=O.readLine();
            p=Integer.parseInt(s);
            if(n!=o)
            {
                System.out.println("Multiplication not possible!!!");
                System.exit(0);
            }
            int b[][]=new int[o][p];
            System.out.println("Enter the Elements");
            for(i=0;i<o;i++)
            {
                for(j=0;j<p;j++)
                {
                    s=O.readLine();
                    b[i][j]=Integer.parseInt(s);
                }
            }

            int c[][]=new int[m][p];
```

```
        for (i=0; i<m; i++)
        {
            for (j=0; j<p; j++)
            {
                c[i][j]=0;
                for (k=0; k<n; k++)
                    c[i][j]=c[i][j]+A[i][k]*b[k][j];
            }
        }
        System.out.println("\n\n\nResult of multiplication of two
matrices is:\n\n\n");
        for (i=0; i<m; i++)
        {
            for (j=0; j<p; j++)
                System.out.print("  "+c[i][j]);

            System.out.println("\n");
        }
    }
    catch (IOException e)
        {System.out.println("Exception"+e);}
    } //End of main
} //End of class
```