**AIM: Create a web service for Matrix addition**

**Web service code:**

/\*

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\*/

package akash;

import javax.jws.WebService;

import javax.jws.WebMethod;

import javax.jws.WebParam;

import java.sql.\*;

import java.util.ArrayList;

import java.util.List;

/\*\*

\*

\* @author Akash

\*/

@WebService(serviceName = "myserv")

public class myserv {

/\*\*

\* This is a sample web service operation

\* @param txt

\* @return

\*/

@WebMethod(operationName = "hello")

public String hello(@WebParam(name = "name") String txt) {

return "Hello " + txt + " !";

}

/\*\*

\* Web service operation

\*/

@WebMethod(operationName = "mat\_add")

public ArrayList mat\_add(@WebParam(name = "row") int row, @WebParam(name = "col") int col, @WebParam(name = "m1") ArrayList m1, @WebParam(name = "m2") ArrayList m2) {

//TODO write your implementation code here:

ArrayList ans = new ArrayList();

int i,j,op1,op2;

for(i=0;i<(row\*col);i++)

{

op1 = (Integer)m1.get(i);

op2 = (Integer)m2.get(i);

ans.add(i,(op1+op2));

}

return ans;

}

}

**Client Code:**

/\*

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package matadd;

import java.util.ArrayList;

import java.util.List;

import java.util.Scanner;

/\*\*

\*

\* @author Akash

\*/

public class MatAdd {

/\*\*

\* @param args the command line arguments

\*/

public static void main(String[] args) {

// TODO code application logic here

int i,j;

ArrayList a1 = new ArrayList();

ArrayList a2 = new ArrayList();

List result = new ArrayList();

Scanner input = new Scanner(System.in);

System.out.println("Please enter no of rows : ");

int row = Integer.parseInt(input.next());

System.out.println("Please enter no of cols : ");

int col = Integer.parseInt(input.next());

//Matrix initialization

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

{

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

{

a1.add((i+2)\*(j+3));

a2.add((i+4)\*(j+5));

}

}

System.out.println("Mat1 : "+a1);

System.out.println("Mat2 : "+a2);

result = matAdd(row,col,a1,a2); //calling web service

int cnt = 0;

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

{

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

{

System.out.print(result.get(cnt)+" ");

cnt++;

}

System.out.println("");

}

}

private static java.util.List<java.lang.Object> matAdd(int row, int col, java.util.List<java.lang.Object> m1, java.util.List<java.lang.Object> m2) {

akash.Myserv\_Service service = new akash.Myserv\_Service();

akash.Myserv port = service.getMyservPort();

return port.matAdd(row, col, m1, m2);

}

}