EXPIRMENT 3

1) CODE:

import java.util.Scanner;

public class VampireNumber {

public static void main(String[] args) {

Scanner sc = new Scanner(System.in);

System.out.print("Enter the 4 digits Number : ");

int number = sc.nextInt();

int d[]=new int[4];

if(number>9999 || number<1000){

System.out.print("Only four digit number are allowed");

}

else {

d[3]=number%10;

d[2]=(number/10)%10;

d[1]=(number/100)%10;;

d[0]=number/1000;

// groups are (0,1),(2,3) , (3,0),(1,2) and (0,2),(1,3)

if((number==(d[0]\*10+d[1])\*(d[3]\*10+d[2])) || (number==(d[1]\*10+d[0])\*(d[2]\*10+d[3]))){

System.out.print("Given Number is Vampire Number");

}

else if((number==(d[0]\*10+d[3])\*(d[2]\*10+d[1])) || (number==(d[3]\*10+d[0])\*(d[1]\*10+d[2])){

System.out.print("Given Number is Vampire Number");

}

else if((number==(d[0]\*10+d[2])\*(d[3]\*10+d[1])) || (number==(d[2]\*10+d[0])\*(d[1]\*10+d[3])){

System.out.print("Given Number is Vampire Number");

}

else {

System.out.print("Not a Vampire Number");

}

}

}

}

output:

Enter the 4 digits Number : 1260

Given Number is Vampire Number

2) code:

public class JaggedArray {

public static void main(String[] args) {

int arr[][]=new int[][] {{1},{2,3},{4,5,6}};

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

for(int j=0;j<arr[i].length;j++){

System.out.print(arr[i][j]+" ");

}

System.out.println();

}

}

}

Output:

1

2 3

4 5 6

3) code;

import java.util.\*;

public class MatrixProblem {

public static void main(String[] args) {

@SuppressWarnings("resource")

Scanner sc = new Scanner(System.in);

System.out.print("Enter rows of matrix : ");

int r = sc.nextInt();

System.out.print("Enter colums of matrix : ");

int c = sc.nextInt();

int matrix[][]=new int[r][c];

for(int i=0;i<r;i++)

for(int j=0;j<c;j++)

matrix[i][j] = sc.nextInt();

int sumOfRow[]=new int[r];

Arrays.fill(sumOfRow, 0);

int sumOfCol[]=new int[c];

Arrays.fill(sumOfCol, 0);

int grandTotal =0;

for(int i=0;i<r;i++){

for(int j=0;j<c;j++){

sumOfRow[i]+=matrix[i][j];

sumOfCol[j]+=matrix[i][j];

}

grandTotal+=sumOfRow[i];

}

for(int i=0;i<r;i++){

for(int j=0;j<c;j++){

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

}

System.out.print("| "+sumOfRow[i]+" \n");

}

for(int j=0;j<c;j++){

System.out.print("----\t");

}

System.out.println("----");

for(int j=0;j<c;j++){

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

}

System.out.print("| "+grandTotal+"\t");

}

}

Output:

Enter rows of matrix : 2

Enter colums of matrix : 3

1 3 6 7 9 8

1 3 6 | 10

7 9 8 | 24

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8 12 14 | 34