

Logic Building Assignment : 74

1. Write java program which Add Two Matrices.

```
import java.util.*;

public class AddMatrices
{
    public static void main(String args[])
    {
        int row,col;

        Scanner sc=new Scanner(System.in);

        System.out.print("Input number of rows: ");
        row=sc.nextInt();
        System.out.print("Input number of rows: ");
        col=sc.nextInt();

        int a[][]=new int[row][col];    //for matrix 1
        int b[][]=new int[row][col];    //for matrix 2
        int c[][]=new int[row][col];    //for matrix 3

        System.out.println("Enter elements of matrix a:");
        for(int i=0; i<row; i++)
        {
            for(int j=0; j<col; j++)
            {
                System.out.print("Element [" + (i+1) + "," + (j+1)
+ "]" ? ");
                a[i][j]=sc.nextInt();
            }
        }

        System.out.println("Enter elements of matrix b:");
        for(int i=0; i<row; i++)
        {
            for(int j=0; j<col; j++)
            {
                System.out.print("Element [" + (i+1) + "," + (j+1)
+ "]" ? ");
                b[i][j]=sc.nextInt();
            }
        }
    }
}
```

```
System.out.println("Matrix a:");
for(int i=0; i<row; i++)
{
    for(int j=0; j<col; j++)
    {
        System.out.print(a[i][j] + "\t");
    }
    System.out.print("\n");
}
```

```
System.out.println("Matrix b:");
for(int i=0; i<row; i++)
{
    for(int j=0; j<col; j++)
    {
        System.out.print(b[i][j] + "\t");
    }
    System.out.print("\n");
}
```

```
for(int i=0; i<row; i++)
{
    for(int j=0; j<col; j++)
    {
        c[i][j]=a[i][j];
    }
}
```

```
System.out.println(":: Final Matrix:");
for(int i=0; i<row; i++)
{
    for(int j=0; j<col; j++)
    {
        System.out.print(c[i][j] + "\t");
    }
    System.out.print("\n");
}
```

```
}
```

```
}
```

2. Write java program to print below pattern.

```
*
* *
* * *
* * * *
* * * * *
```

```
public class PrintPattern
{
    public static void main(String args[])
    {
        int space=4;
        for(int i=1; i<=5; i++)
        {
            //print spaces
            for(int j=1; j<=space;j++)
                System.out.print(" ");

            //print stars
            for(int j=1; j<=i; j++)
                System.out.print("* ");

            //print new line
            System.out.println();
            space--;
        }
    }
}
```

3. Write java program to print below pattern.

```
* * * * *  
* * * *  
* * *  
* *  
*
```

```
public class PrintPattern  
{  
    public static void main(String args[])  
    {  
        int space=0;  
        for(int i=5; i>=1; i--)  
        {  
            //print spaces  
            for(int j=1; j<=space;j++)  
                System.out.print(" ");  
  
            //print stars  
            for(int j=1; j<=i; j++)  
                System.out.print("* ");  
  
            //print new line  
            System.out.println();  
            space++;  
        }  
    }  
}
```

4. Write java program to print below pattern.

```
*      *
**     **
***    ***
****   ****
*****  *****
```

```
public class PrintPattern
{
    public static void main(String args[])
    {
        int space=8;
        for(int i=1; i<=5; i++)
        {
            //print first part of the row
            for(int j=1; j<=i; j++)
                System.out.print("*");

            //print space
            for(int j=1; j<=space; j++)
                System.out.print(" ");

            //print second part of the row
            for(int j=1; j<=i; j++)
                System.out.print("*");

            //print new lint
            System.out.println();
            space=space-2;
        }
    }
}
```

5. Write java program to print below pattern.

```
*****
****  ****
***   ***
**    **
*     *
```

```
public class PrintPattern
{
    public static void main(String args[])
    {
        int space=0;
        for(int i=5; i>=1; i--)
        {
            //print first part of the row
            for(int j=i; j>=1; j--)
                System.out.print("*");

            //print space
            for(int j=1; j<=space; j++)
                System.out.print(" ");

            //print second part of the row
            for(int j=i; j>=1; j--)
                System.out.print("*");

            //print new line
            System.out.println();
            space=space+2;
        }
    }
}
```