

Assignment No.03

Pattern 1

```
1
1 2
1 2 3
1 2 3 4
1 2 3 4 5
```

```
import java.util.*;
```

```
class Q1
```

```
{
    public static void main(String args[])
    {
        for(int i=1; i<=5; i++)
        {
            for(int j=1; j<=i; j++)
            {
                System.out.print(j+" ");
            }
            System.out.println();
        }
    }
}
```

Pattern 2

A
A B
A B C
A B C D
A B C D E

```
import java.util.*;
```

```
class Q2
```

```
{  
    public static void main(String args[])  
    {  
        for(char i='A'; i<='E'; i++)  
        {  
            for(char j='A'; j<=i; j++)  
            {  
                System.out.print(j+" ");  
            }  
            System.out.println();  
        }  
    }  
}
```

Pattern 3

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

```
import java.util.*;
```

```
class Q3
```

```
{
```

```
    public static void main(String args[])
```

```
    {
```

```
        for(int i=1; i<=5; i++)
```

```
        {
```

```
            for(int j=1; j<=i; j++)
```

```
            {
```

```
                System.out.print("*"+" ");
```

```
            }
```

```
        System.out.println();
```

```
    }
```

```
}
```

```
}
```

Pattern 4

```
1
2 2
3 3 3
4 4 4 4
5 5 5 5 5
```

```
import java.util.*;
```

```
class Q4
```

```
{
    public static void main(String args[])
    {
        for(int i=1; i<=5; i++)
        {
            for(int j=1; j<=i; j++)
            {
                System.out.print(i+" ");
            }
            System.out.println();
        }
    }
}
```

Pattern 5

A
B B
C C C
D D D D
E E E E E

```
import java.util.*;
```

```
class Q5
```

```
{  
    public static void main(String args[])  
    {  
        for(char i='A'; i<='E'; i++)  
        {  
            for(char j='A'; j<=i; j++)  
            {  
                System.out.print(i+" ");  
            }  
            System.out.println();  
        }  
    }  
}
```

Pattern 6

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

```
import java.util.*;
```

```
class Q6
```

```
{
```

```
    public static void main(String args[])
```

```
    {
```

```
        int n = 5;
```

```
        for(int i=1; i<=n; i++)
```

```
        {
```

```
            for(int j= n-1; j>=i; j--)
```

```
            {
```

```
                System.out.print(" ");
```

```
            }
```

```
            for(int k=1; k<=i; k++)
```

```
            {
```

```
                System.out.print("*");
```

```
            }
```

```
        System.out.println();
```

```
    }
```

```
}
```

```
}
```

Pattern 7

```
    1
   1 2
  1 2 3
 1 2 3 4
1 2 3 4 5
```

```
import java.util.*;
```

```
class Q7
```

```
{
```

```
    public static void main(String args[])
```

```
    {
```

```
        int n = 5;
```

```
        for(int i=1; i<=n; i++)
```

```
        {
```

```
            for(int j= n-1; j>=i; j--)
```

```
            {
```

```
                System.out.print(" ");
```

```
            }
```

```
            for(int k=1; k<=i; k++)
```

```
            {
```

```
                System.out.print(k+" ");
```

```
            }
```

```
        System.out.println();
```

```
    }
```

```
}
```

```
}
```

Pattern 8

```
    5
   4 5
  3 4 5
 2 3 4 5
1 2 3 4 5
```

```
class Q8
{
    public static void main(String args[])
    {
        int n = 5;

        for(int i=n; i>=1; i--)
        {
            for(int j= 1; j<=i; j++)
            {
                System.out.print(" ");
            }

            for(int k=i; k<=n; k++)
            {
                System.out.print(k+" ");
            }

            System.out.println();
        }
    }
}
```


Pattern 9

```
  A
 A B
A B C
A B C D
A B C D E
```

class Q9

```
{
    public static void main(String args[])
    {
        for(char i='A'; i<='E'; i++)
        {
            char s=1;
            for(int k= 4; k>=s; k--)
            {
                System.out.print(" ");
                s++;
            }
            for(char j='A'; j<=i; j++)
            {
                System.out.print(j+" ");
            }
            System.out.println();
        }
    }
}
```

Pattern 10

```
  E
 D E
C D E
B C D E
A B C D E
```

class Q10

```
{

    public static void main(String args[])
    {

        int alpha = 65;
        for (int i=5; i>=1; i--)
        {
            for (int j=1; j<=i; j++)
            {
                System.out.print(" ");
            }
            for (int k=i; k<=5; k++)
            {
                System.out.print((char)(alpha+k-1) + " ");
            }
            System.out.println();
        }

    }

}
```

Pattern 11

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

class Q11

```
{

    public static void main(String args[])
    {
        for(int i=1; i<=5; i++)
        {
            int min = 1;
            for(int k= 5; k>i; k--)
            {
                System.out.print(" ");
            }
            for(int j=1;j<=(i*2)-1; j++)
            {
                System.out.print("*");
            }

            System.out.println();
        }
    }
}
```

Pattern 12

```
  1
 2 2
3 3 3
4 4 4 4
5 5 5 5 5
```

class Q12

```
{
    public static void main(String args[])
    {
        int i, k, j;
        for(i=1; i<=5; i++)
        {
            for(j=5; j>i; j--)
            {
                System.out.print(" ");
            }
            for(k=1; k<=i; k++)
            {
                System.out.print(i+ " ");
            }
            System.out.println();
        }
    }
}
```

Pattern 13

```
  A
 B B
C C C
D D D D
E E E E E
```

class Q13

```
{
    public static void main(String args[])
    {
        int alpha = 65;
        int i, j, k;
        for(i=1; i<=5; i++)
        {
            for(j=4; j>=i; j--)
            {
                System.out.print(" ");
            }
            for(k=1; k<=i; k++)
            {
                System.out.print((char)(alpha+i-1)+ " ");
            }
            System.out.println();
        }
    }
}
```

Pattern 14

```
1 2 3 4 5
1 2 3 4
1 2 3
1 2
1
```

class Q14

```
{
    public static void main(String args[])
    {
        int i,j;
        for(i=5; i>=1; i--)
        {
            for(j=1; j<=i; j++)
            {
                System.out.print(j+ " ");
            }
            System.out.println();
        }
    }
}
```

Pattern 15

```
5 4 3 2 1
5 4 3 2
5 4 3
5 4
5
```

class Q15

```
{
    public static void main(String args[])
    {
        int i,j;
        for(i=1; i<=5; i++)
        {
            for(j=5; j>=i; j--)
            {
                System.out.print(j+ " ");
            }
            System.out.println();
        }
    }
}
```

Pattern 16

```
5
5 4
5 4 3
5 4 3 2
5 4 3 2 1
```

class Q16

```
{
    public static void main(String args[])
    {
        int i,j;
        for(i=5; i>=1; i--)
        {
            for(j=5; j>=i; j--)
            {
                System.out.print(j+ " ");
            }
            System.out.println();
        }
    }
}
```


Pattern 17

```
1
2 3
4 5 6
7 8 9 10
11 12 13 14 15
```

```
class Q17
{
    public static void main(String args[])
    {
        int a=0,i,j;
        for(i=1; i<=5; i++)
        {
            for(j=1; j<=i; j++)
            {
                System.out.print(++a + " ");
            }
            System.out.println();
        }
    }
}
```

Pattern 18

A B C D E
A B C D
A B C
A B
A

class Q18

```
{  
    public static void main(String args[])  
    {  
        int alpha = 65,i,j;  
        for(i=5; i>=1; i--)  
        {  
            for(j=0; j<i; j++)  
            {  
                System.out.print((char)(alpha + j) + " ");  
            }  
            System.out.println();  
        }  
    }  
}
```

Pattern 1

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

```
class p1  
{  
    public static void main(String args[])  
    {  
        int i,j;  
        for(i=1; i<=5; i++)  
        {  
            for(j=1; j<=i; j++)  
            {  
                System.out.print("*");  
            }  
            System.out.println();  
        }  
    }  
}
```

Pattern 2

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

class p2

```
{
    public static void main(String args[])
    {
        int i,j, k;
        for(i=1; i<=5; i++)
        {
            for(k=4; k>=i; k--)
            {
                System.out.print(" ");
            }
            for(j=1; j<=i; j++)
            {
                System.out.print("*");
            }
            System.out.println();
        }
    }
}
```

Pattern 3

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

```
class p3
{
    public static void main(String args[])
    {
        int i,j;
        for(i=1; i<=5; i++)
        {
            for(j=5; j>=i; j--)
            {
                System.out.print("*");
            }
            System.out.println();
        }
    }
}
```

Pattern 4

**

*

class p4

```
{
    public static void main(String args[])
    {
        int i,j, k;
        for(i=5;i>=1;i--)
        {
            for(k=i;k<5;k++)
            {
                System.out.print(" ");
            }
            for(j=i; j>=1; j--)
            {
                System.out.print("*");
            }
            System.out.println();
        }
    }
}
```

Pattern 5

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

class p5

```
{
    public static void main(String args[])
    {
        for(int i=1; i<=5; i++)
        {
            for(int k= 5; k>i; k--)
            {
                System.out.print(" ");
            }
            for(int j=1;j<=(i*2)-1; j++)
            {
                System.out.print("*");
            }

            System.out.println();
        }
    }
}
```

Pattern 6

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

class p6

```
{
    public static void main(String args[])
    {
        int i,j,k,l;
        for(i=1; i<=5; i++)
        {
            for(j=1;j<i;j++)
            {
                System.out.print(" ");
            }
            for(k=5;k>=i;k--)
            {
                System.out.print("*");
            }
            for(l=5;l>i;l--)
            {
                System.out.print("*");
            }
            System.out.println();
        }
    }
}
```


Pattern 7

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

class p7

```
{
    public static void main(String args[])
    {
        for(int i=1;i<=4;i++)
        {
            for(int j=i;j<5;j++)
            {
                System.out.print(" ");
            }
            for(int k=1;k<=i;k++)
            {
                System.out.print("*");
            }
            for(int l=1;l<i;l++)
            {
                System.out.print("*");
            }
            System.out.println();
        }
        for(int i=1;i<=5;i++)
        {
```

```
        for(int j=1;j<i;j++)
        {
            System.out.print(" ");
        }
        for(int k=5;k>=i;k--)
        {
            System.out.print("*");
        }
        for(int l=5;l>i;l--)
        {
            System.out.print("*");
        }
        System.out.println();
    }
}
```

Pattern 8

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

class p8

```
{
    public static void main(String args[])
    {
        int i,j;
        for(i=1; i<=4; i++)
        {
            for(j=1; j<=i; j++)
            {
                System.out.print("*");
            }
            System.out.println();
        }
        for(i=1; i<=5; i++)
        {
            for(j=5; j>=i; j--)
            {
                System.out.print("*");
            }
            System.out.println();
        }
    }
}
```

}

}

Pattern 9

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

class p9

```
{
    public static void main(String args[])
    {
        int i,j, k;
        for(i=1; i<=4; i++)
        {
            for(k=4; k>=i; k--)
            {
                System.out.print(" ");
            }
            for(j=1; j<=i; j++)
            {
                System.out.print("*");
            }
            System.out.println();
        }
        for(i=5; i>=1; i--)
        {
            for(k=i; k<5; k++)
            {
                System.out.print(" ");
            }
            for(j=1; j<=i; j++)
            {
                System.out.print("*");
            }
            System.out.println();
        }
    }
}
```

```
    }  
    for(j=i; j>=1; j--)  
    {  
        System.out.print("*");  
    }  
    System.out.println();  
}  
}  
}
```

Pattern 10

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

```
class p10
```

```
{
    public static void main(String args[])
    {
        int i, j, k;
        for(i=5;i>=1;i--)
        {
            for(j=1;j<i;j++)
            {
                System.out.print(" ");
            }
            for(k=1;k<=5;k++)
            {
                System.out.print("*");
            }
            System.out.println();
        }
    }
}
```

Pattern 11

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

```
class p11
{
    public static void main(String args[])
    {
        int i, j, k;
        for(i=5;i>=1;i--)
        {
            for(j=i;j<5;j++)
            {
                System.out.print(" ");
            }
            for(k=1;k<=5;k++)
            {
                System.out.print("*");
            }
            System.out.println();
        }
    }
}
```


Pattern 12

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

class p12

```
{
    public static void main(String args[])
    {
        int i,j;
        for(i=1; i<=4; i++)
        {
            for(j=5; j>=i; j--)
            {
                System.out.print("*");
            }
            System.out.println();
        }

        for(i=1; i<=5; i++)
        {
            for(j=1; j<=i; j++)
            {
                System.out.print("*");
            }
            System.out.println();
        }
    }
}
```

}

}

Pattern 13

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

class p13

```
{
    public static void main(String args[])
    {
        int i,j, k;
        for(i=5;i>=1;i--)
        {
            for(k=i;k<5;k++)
            {
                System.out.print(" ");
            }
            for(j=i; j>=1; j--)
            {
                System.out.print("*");
            }
            System.out.println();
        }

        for(i=1; i<=5; i++)
        {
            for(k=4; k>=i; k--)
            {
```

```
        System.out.print(" ");
    }
    for(j=1; j<=i; j++)
    {
        System.out.print("*");
    }
    System.out.println();
}
}
```

Pattern 14

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

class p14

```
{
    public static void main(String args[])
    {
        int i,j,k,l;
        for(i=1; i<=5; i++)
        {
            for(j=1;j<i;j++)
            {
                System.out.print(" ");
            }
            for(k=5;k>=i;k--)
            {
                System.out.print("*");
            }
            for(l=5;l>i;l--)
            {
                System.out.print("*");
            }
            System.out.println();
        }
    }
}
```

```
for(i=1; i<=5; i++)
{

    for(k= 5; k>i; k--)
    {
        System.out.print(" ");
    }
    for(j=1;j<=(i*2)-1; j++)
    {
        System.out.print("*");
    }

    System.out.println();
}
}
```

Pattern 15

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

lass p15

```
{
    public static void main(String args[])
    {
        for(int i=1;i<=5;i++)
        {
            for(int j=1;j<=i;j++)
            {
                if(j==1 || i==j || i==5)
                {
                    System.out.print("*");
                }
                else
                {
                    System.out.print(" ");
                }
            }

            System.out.println();
        }
    }
}
```

Pattern 16

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

class p16

```
{
    public static void main(String args[])
    {
        for(int i=1;i<=5;i++)
        {
            for(int k=i;k<=5;k++)
            {
                System.out.print(" ");
            }
            for(int j=1;j<=i;j++)
            {
                if(i==5 || j==1 || j==i)
                {
                    System.out.print("*");
                }
                else
                {
                    System.out.print(" ");
                }
            }
            System.out.println();
        }
    }
}
```

```
  1
 2 2
3 3 3
4 4 4 4
5 5 5 5 5
6 6 6 6 6 6
7 7 7 7 7 7 7
8 8 8 8 8 8 8 8
9 9 9 9 9 9 9 9 9
```

Pyramid Pattern-1

```
class pp1
{
    public static void main(String args[])
    {
        int i, j, k;
        for(i=1;i<=9;i++)
        {
            for(j=i;j<=9;j++)
            {
                System.out.print(" ");
            }
            for(k=1;k<=i;k++)
            {
                System.out.print(i+" ");
            }
            System.out.println();
        }
    }
}
```

```

1
1 2
1 2 3
1 2 3 4
1 2 3 4 5
1 2 3 4 5 6
1 2 3 4 5 6 7
1 2 3 4 5 6 7 8
1 2 3 4 5 6 7 8 9

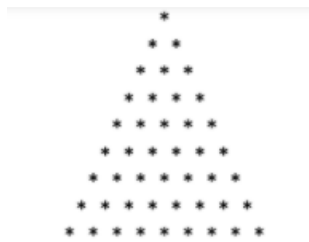
```

Pyramid Pattern-2

```

class pp2
{
    public static void main(String args[])
    {
        int i, j, k;
        for(i=1;i<=9;i++)
        {
            for(j=i;j<9;j++)
            {
                System.out.print(" ");
            }
            for(k=1;k<=i;k++)
            {
                System.out.print(k+" ");
            }
            System.out.println();
        }
    }
}

```



Pyramid Pattern-3

```

class pp3
{
    public static void main(String args[])
    {
        int i, j, k;
        for(i=1;i<=9;i++)
        {
            for(j=i;j<9;j++)
            {
                System.out.print(" ");
            }
            for(k=1;k<=i;k++)
            {
                System.out.print("*"+" ");
            }
            System.out.println();
        }
    }
}
  
```

```

      1
    1 2 1
  1 2 3 2 1
1 2 3 4 3 2 1
  1 2 3 4 5 4 3 2 1
    1 2 3 4 5 6 5 4 3 2 1
      1 2 3 4 5 6 7 6 5 4 3 2 1
        1 2 3 4 5 6 7 8 7 6 5 4 3 2 1
          1 2 3 4 5 6 7 8 9 8 7 6 5 4 3 2 1

```

Pyramid Pattern-4

```

class pp4
{
    public static void main(String args[])
    {
        for(int i=1;i<=9;i++)
        {
            for(int j=i;j<9;j++)
            {
                System.out.print(" ");
            }
            for(int k=1;k<=i;k++)
            {
                System.out.print(k);
            }
            for(int l=i;l>=1;l--)
            {
                System.out.print(l);
            }
            System.out.println();
        }
    }
}

```

```

      9
    8 9 8
  7 8 9 8 7
6 7 8 9 8 7 6
5 6 7 8 9 8 7 6 5
4 5 6 7 8 9 8 7 6 5 4
3 4 5 6 7 8 9 8 7 6 5 4 3
2 3 4 5 6 7 8 9 8 7 6 5 4 3 2
1 2 3 4 5 6 7 8 9 8 7 6 5 4 3 2 1

```

Pyramid Pattern-5

```

class pp5
{
    public static void main(String args[])
    {
        for(int i=9;i>=1;i--)
        {
            for(int j=i;j>1;j--)
            {
                System.out.print(" ");
            }
            for(int k=i;k<9;k++)
            {
                System.out.print(k);
            }
            for(int l=9;l>=i;l--)
            {
                System.out.print(l);
            }
            System.out.println();
        }
    }
}

```

```

9 9 9 9 9 9 9 9
8 8 8 8 8 8 8 8
7 7 7 7 7 7 7
6 6 6 6 6 6
5 5 5 5
4 4 4 4
3 3 3
2 2
1

```

Tower

Inverted Pyramid Pattern-7

```

class pp7
{
    public static void main(String main[])
    {
        for(int i=9;i>=1;i--)
        {
            for(int j=i;j<9;j++)
            {
                System.out.print(" ");
            }
            for(int k=1;k<=i;k++)
            {
                System.out.print(i+" ");
            }
            System.out.println();
        }
    }
}

```