

1. Write a program(WAP) to print INEURON using pattern programming logic.

```
public class Inueron{
    public static void main(String args[]){
        //java program to print INUERON
        int n=10;

        for(int i=0;i<n;i++){
            for(int j=0;j<n;j++){
                if(i==0||i==n-1||j==n/2){
                    System.out.print("*");
                }else{
                    System.out.print(" ");
                }
            }
            System.out.print(" ");
            for(int j=0;j<n;j++){
                if(j==0||j==n-1||i==j){
                    System.out.print("*");
                }else{
                    System.out.print(" ");
                }
            }
            System.out.print(" ");
            for(int j=0;j<n;j++){
                if((j==0 && i<n-1)|| (j==n-1 && i<n-1)|| (i==n-1&& j>0
&&j<n-1)){
                    System.out.print("*");
                }else{
                    System.out.print(" ");
                }
            }
            System.out.print(" ");
            for(int j=0;j<n;j++){
                if(i==0||i==n/2||i==n-1||j==0){
                    System.out.print("*");
                }else{
                    System.out.print(" ");
                }
            }
        }
    }
}
```

```

    }
}
System.out.print("  ");
for(int j=0;j<n;j++){
    if((j==0 && i>0) || (i==0 && j>0 && j<3*n/4) || (j==3*n/4
&& i>0 && i<n/2) || (i==n/2 && j>0 && j<3*n/4) || (i==j && i>n/2 &&
j>n/2)){
        System.out.print("*");
    }else{
        System.out.print(" ");
    }
}
System.out.print("  ");
for(int j=0;j<n;j++){
    if((i==0 && j>0 && j<3*n/4) || (j==0 && i>0 && i<n-
1) || (j==3*n/4 && i>0 && i<n-1) || (i==n-1 && j>0 && j<3*n/4)){
        System.out.print("*");
    }else{
        System.out.print(" ");
    }
}
System.out.print("  ");
for(int j=0;j<n;j++){
    if(j==0 || j==n-1 || i==j){
        System.out.print("*");
    }else{
        System.out.print(" ");
    }
}
System.out.print("  ");
System.out.println();
}
}
}

```

```
$ java Inueron.java
```

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

2. Write a program to print

```
1 1 1 1
```

```
2 2 2 2
```

```
3 3 3 3
```

```
4 4 4 4
```

```
public class PatternTwo {
    public static void main(String args[]){
        int n=4;
        for(int i=1;i<=n;i++){
            for(int j=1;j<=n;j++){
                System.out.print(i);
            }
            System.out.println();
        }
    }
}
```

```
$ java PatternTwo.java
```

```
1111
```

```
2222
```

```
3333
```

```
4444
```

3. WAP to print

```
public class PatternThree {
    public static void main(String args[]){
        int n=15;
        for(int i=0;i<n;i++){
            for(int j=0;j<n;j++){
                if((i==0)|| (i==n-1)|| (j==0)|| (j==n-1)|| (i+j<=n/2)|| (j-
i>=n/2)){
                    System.out.print("*");
                }else{
                    System.out.print(" ");
                }
            }
            System.out.println();
        }
    }
}
```

```
$ java PatternThree.java
*****
*****
*****
*****
*****
*****
*****
*****
*****
*****
*****
*****
*****
*****
*****
```

4. WAP to print

```
public class PatternFour {
    public static void main(String args[]) {
        int n=15;
        for(int i=0;i<n;i++){
            for(int j=0;j<n;j++){
                if((j==0 && i>=n/2)|| (j==n-1&& i>= n/2)|| (i==n-1)|| (i-
j>=n/2)|| (i+j>=(n-1+(n-1)/2))){
                    System.out.print("*");
                }
            }
        }
    }
}
```

```

        }else{
            System.out.print(" ");
        }
    }
    System.out.println();
}
}
}

```

➤ java PatternFour.java

```

*               *
**            **
***         ***
****      ****
*****   *****
*****  *****
***** *****
***** *****

```

5. WAP to print

```

public class PatternFive {
    public static void main(String args[]) {
        int n=15;
        for(int i=0;i<n;i++){
            for(int j=0;j<n;j++){
                if((i==0)|| (i==n-1)|| (j==0)|| (i+j<=(n-1)/2)|| (i-j>=(n-
1)/2)){
                    System.out.print("*");
                }else{
                    System.out.print(" ");
                }
            }
            System.out.println();
        }
    }
}

```

```
10:00@pratyusha-pc:~/Desktop / C/
$ java PatternFive.java
*****
*****
*****
*****
****
***
**
*
**
***
****
*****
*****
*****
*****
```