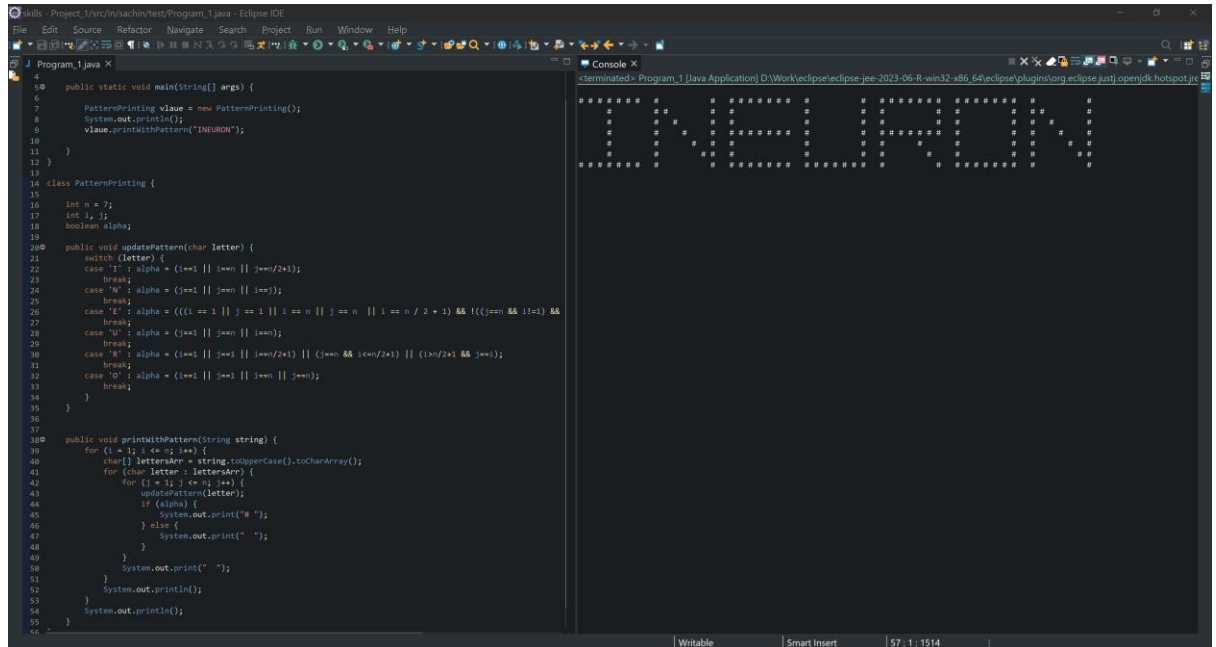


Assignment 1

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

Solution:

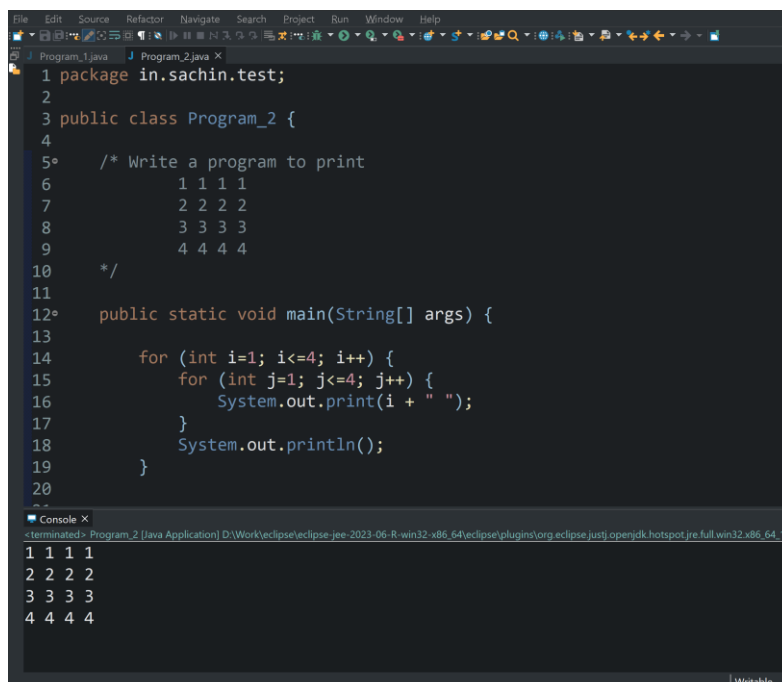


```
50 public static void main(String[] args) {
51     PatternPrinting v1aue = new PatternPrinting();
52     System.out.println();
53     v1aue.printWithPattern("INEURON");
54 }
55
56 class PatternPrinting {
57     int n = 7;
58     int i, j;
59     boolean alpha;
60
61     public void updatePattern(char letter) {
62         switch (letter) {
63             case 'I': alpha = (i==1 || i==n || j==n/2+1);
64             break;
65             case 'N': alpha = (j==1 || j==n || i==n);
66             break;
67             case 'E': alpha = (((i==1 || j==1 || i==n || j==n || i==n/2+1) && !((j==n && i!=1) &&
68             break;
69             case 'U': alpha = (j==1 || j==n || i==n);
70             break;
71             case 'R': alpha = (i==1 || j==1 || i==n/2+1) || (j==n && i==n/2+1) || (i==n/2+1 && j==1);
72             break;
73             case 'O': alpha = (i==1 || j==1 || i==n || j==n);
74             break;
75         }
76     }
77
78     public void printWithPattern(String string) {
79         for (i = 1; i <= n; i++) {
80             char[] lettersArr = string.toUpperCase().toCharArray();
81             for (char letter : lettersArr) {
82                 for (j = 1; j <= n; j++) {
83                     updatePattern(letter);
84                     if (alpha) {
85                         System.out.print("X ");
86                     } else {
87                         System.out.print(" ");
88                     }
89                     System.out.print(" ");
90                 }
91                 System.out.println();
92             }
93             System.out.println();
94         }
95     }
96 }
```

2. Write a program to print

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

Solution:



```
1 package in.sachin.test;
2
3 public class Program_2 {
4
5     /* Write a program to print
6         1 1 1 1
7         2 2 2 2
8         3 3 3 3
9         4 4 4 4
10    */
11
12     public static void main(String[] args) {
13
14         for (int i=1; i<=4; i++) {
15             for (int j=1; j<=4; j++) {
16                 System.out.print(i + " ");
17             }
18             System.out.println();
19         }
20     }
21 }
```

3. WAP to print.

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

Solution:

```
Program_1.java Program_2.java X Console X
1 package in.sachin.test;
2
3 public class Program_2 {
4     /* Write a program to print
5         * * * * *
6         * * * * *
7         * * * * *
8         * * * * *
9         * * * * *
10        * * * * *
11        * * * * *
12        * * * * *
13        * * * * *
14        * * * * *
15        * * * * *
16        * * * * *
17        * * * * *
18    */
19    public static void main(String[] args) {
20        int rows = 7;
21        for (int i=0; i<rows; i++) {
22            for (int j=1; j<=rows-i; j++) {
23                System.out.print(" ");
24            }
25            for (int j=1; j<=i*2; j++) {
26                System.out.print(" ");
27            }
28            for (int j=1; j<=rows-i; j++) {
29                System.out.print(" ");
30            }
31            System.out.println();
32        }
33        for (int i=0; i<rows-1; i++) {
34            for (int j=0; j<=rows*2; j++) {
35                if (j == 0 || j == rows*2-1)
36                    System.out.print(" ");
37                else System.out.print(" ");
38            }
39            System.out.println();
40        }
41        for (int i=0; i<rows*2; i++) {
42            System.out.print(" ");
43        }
44    }
45 }
46 }
47 }
```

4. WAP to print

```
*
                                     *
**                               **
***                             ****
****                           *****
*****                         *~*****
*****~*****                 ~*****
*****~*****~*****          ~*****~*****
*****~*****~*****~*****    ~*****~*****~*****
*****~*****~*****~*****~*****~*****~*****~*****~*****
```

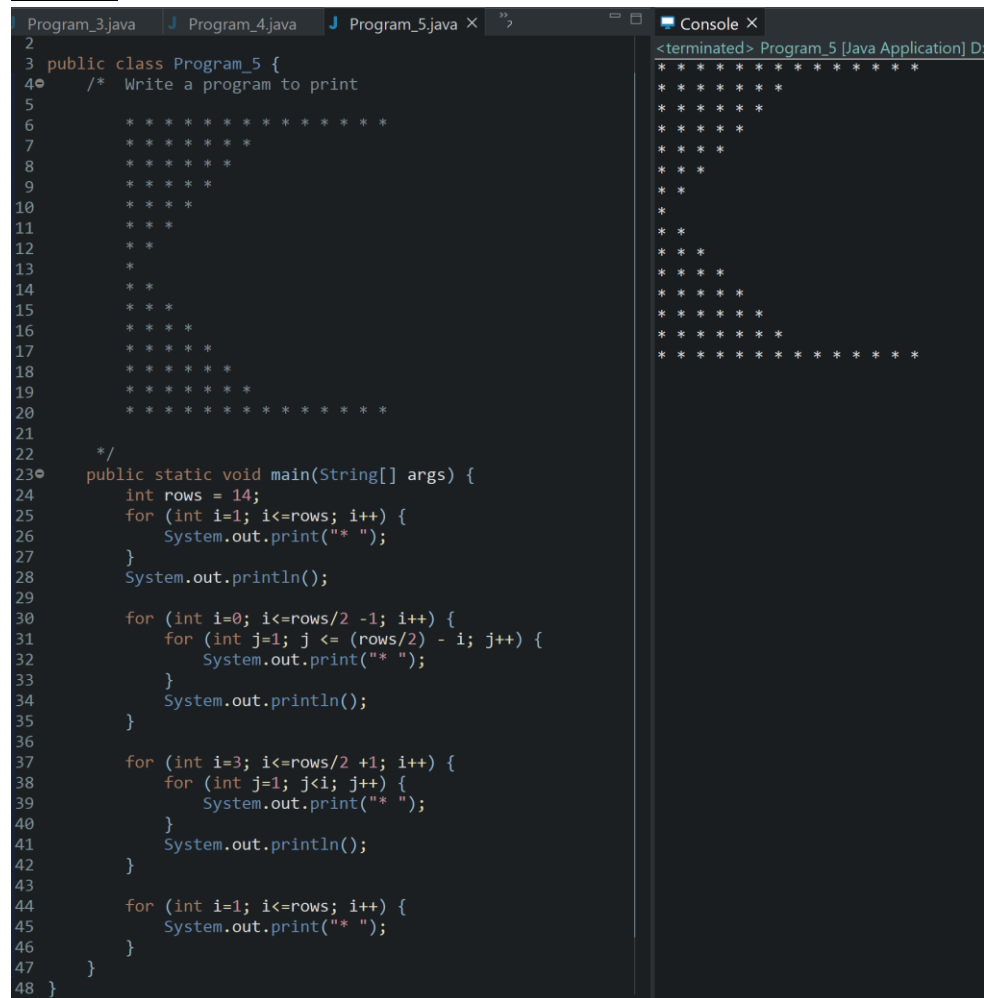
Solution:

```
Program_1.java Program_2.java Program_3.java Program_4.java X
1 package in.sachin.test;
2
3 public class Program_4 {
4     /* Write a program to print
5
6         *               *
7         * *           * *
8         * * *       * * *
9         * * * *   * * * *
10        * * * * * * * * *
11        * * * * *   * * * *
12        * * * * * * * * *
13        * * * * * * * * *
14
15        */
16        public static void main(String[] args) {
17            int rows = 7;
18            for (int i=1; i<=rows; i++) {
19                for (int j=0; j<i; j++) {
20                    System.out.print("* ");
21                }
22
23                for (int j=rows*2; j>i*2; j--) {
24                    System.out.print(" ");
25                }
26
27                for (int j=0; j<i; j++) {
28                    System.out.print("* ");
29                }
30                System.out.println();
31            }
32            for (int i=1; i<=rows*2; i++) {
33                System.out.print("* ");
34            }
35        }
36    }
37}
```

5. WAP to print

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

Solution:



```
Program_3.java Program_4.java Program_5.java X
2
3 public class Program_5 {
4     /* Write a program to print
5
6         * * * * *
7         * * * * *
8         * * * * *
9         * * * * *
10        * * * *
11        * * *
12        * *
13        *
14        * *
15        * * *
16        * * * *
17        * * * * *
18        * * * * *
19        * * * * *
20        * * * * *
21
22     */
23     public static void main(String[] args) {
24         int rows = 14;
25         for (int i=1; i<=rows; i++) {
26             System.out.print(" " );
27         }
28         System.out.println();
29
30         for (int i=0; i<=rows/2 -1; i++) {
31             for (int j=1; j <= (rows/2) - i; j++) {
32                 System.out.print(" " );
33             }
34             System.out.println();
35         }
36
37         for (int i=3; i<=rows/2 +1; i++) {
38             for (int j=1; j<i; j++) {
39                 System.out.print(" " );
40             }
41             System.out.println();
42         }
43
44         for (int i=1; i<=rows; i++) {
45             System.out.print(" " );
46         }
47     }
48 }
```

<terminated> Program_5 [Java Application] D:

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

Repository Link: <https://github.com/sachinknsachi/skills.git>