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Pattern Program In Java

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In this tutorial, we will learn to create **Pattern program in Java**. We will see 30 different patterns in Java with explanation and source code.

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1. Square pattern in Java

The [square pattern](#) in Java is the simplest pattern that you can start with.

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

This pattern makes a shape of a square or you can shape it in a rectangle.

Steps to create a square pattern in Java:

1. Define the size of the square (or you can take user input).
2. Create a nested loop where the external loop is the number of rows and the inner loop is the number of columns.
3. Print the star in each column and print a new line after each row.



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```
1 public class squarePattern {  
2     public static void main(String[] args) {  
3         // size of the square  
4         int size = 5;  
5         // outer loop  
6         for (int i = 0; i < size; i++) {  
7             // inner loop  
8             for (int j = 0; j < size; j++) {  
9                 System.out.print("*");  
10            }  
11            System.out.println();  
12        }  
13    }  
14 }  
15 }
```

Output:

```
*****
```



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

2. Hollow Square pattern

The **hollow square** is the same as the above pattern but stars only at the borders. Which makes it a hollow square.

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

Steps to create a hollow square pattern in Java:

1. Set size of the square (or take user input).
2. Create a nested loop where the external loop executes the number of rows.
3. In the internal loop, print star in the first and last row and only at the first and last column.
4. Break the line after each row.

```
public class hollowSquare {
    public static void main(String[] args) {

        // size of the square
        int size = 5;
        // outer loop
        for (int i = 0; i < size; i++) {
            // inner loop
            for (int j = 0; j < size; j++) {
                // print only star in first and last ro
                if (i == 0 || i == size - 1) {
                    System.out.print("*");
                }
            }
        }
    }
}
```



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```

17         if (j == 0 || j == size - 1) {
18             System.out.print("*");
19         }
20         else {
21             System.out.print(" ");
22         }
23     }
24 }
25 System.out.println();
26 }
27 }
}

```

Output:

```

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

```

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3. Left triangle star pattern in Java

The **left triangle star pattern** is also quite a simple pattern. It has a shape of a triangle with its perpendicular line at the left side.

```

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

```

Steps to create a left triangle star pattern in Java:

1. Take the size of the triangle.
2. Create a nested loop and repeat the outer loop for times equal to the size of the triangle.
3. Repeat the inner loop for times equal to the index of the outer loop and print star (*).
4. Use `println` to break the line after each row.

```

1 public class leftTrianlge {
2     public static void main(String[] args) {
3

```



```

7   // loop to print the pattern
8   for (int i = 0; i < size; i++) {
9     // print column
10    for (int j = 0; j <= i; j++) {
11      System.out.print("*");
12    }
13    System.out.println();
14  }
15}

```

Output:

```

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

```

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4. Right triangle pattern program in Java

The [right triangle star pattern](#) is also the same as the left triangle star pattern but it has a shape of a triangle with its perpendicular line at the right side.

```

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

```

This is a bit harder than the left triangle star pattern



Steps to create a right triangle star pattern:

1. Repeat the external loop to print columns of the triangle.
2. Inside this loop use, 2 different loops first to print spaces and second to print stars.
3. At the end of each row, create a new line.

```

1 public class rightTriangle {
2     public static void main(String[] args) {
3
4         // size of the triangle
5         int size = 5;
6         // loop to print the pattern
7         for (int i = 0; i < size; i++) {
8             // print spaces
9             for (int j = 1; j < size - i; j++) {
10                 System.out.print(" ");
11             }
12             // print stars
13             for (int k = 0; k <= i; k++) {
14                 System.out.print("*");
15             }
16             System.out.println();
17         }
18     }
19 }
```

Output:

```

*
**
***
```



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5. Left Down Triangle

You can see [Left down triangle](#) below.

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

Here are the steps to create a downward triangle pattern program in Java:

1. Take the size of your triangle.
2. Create an external loop to print rows of triangles.
3. Create an inner loop that print star for times equal to size minus the outer loop index.

```
1 public class leftDown {
2     public static void main(String[] args) {
3
4         // size of the triangle
5         int size = 5;
6         for (int i = 0; i < size; i++) {
7             // print stars
8             for (int j = 0; j < size - i; j++) {
9                 System.out.print("*");
10            }
11            System.out.println();
12        }
13    }
14 }
```

Output:

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



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6. Right Down Triangle

You can see [Right down triangle](#) below.

```
**
*
```

Here is the complete code create downward triangle pattern program in Java:

```
1 public class rightDown {
2     public static void main(String[] args) {
3
4         // size of the triangle
5         int size = 5;
6         for (int i = 0; i < size; i++) {
7             // print spaces
8             for (int j = 0; j < i; j++) {
9                 System.out.print(" ");
10            }
11            // print stars
12            for (int j = size; j > i; j--) {
13                System.out.print("*");
14            }
15            System.out.println();
16        }
17    }
18 }
```

Output:

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



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7. Hollow triangle star pattern in Java

The [hollow triangle star pattern](#) is a simple triangle



```

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

```

Steps to create hollow triangle pattern program in Java:

1. Set a size for the triangle and create an outer loop to print rows.
2. Inside the inner loop, if the index of the inner loop is last then print star (*) at first and last index of the inner loop.
3. If it is the last row then print only star (*).
4. Change line after each row.

```

1 public class hollowTriangle {
2     public static void main(String[] args) {
3
4         // size of the triangle
5         int size = 5;
6         for (int i = 1; i <= size; i++) {
7             for (int j = 0; j < i; j++) {
8                 // not last row
9                 if (i != size) {
10                     if (j == 0 || j == i - 1) {
11                         System.out.print("*");
12                     } else {
13                         System.out.print(" ");
14                     }
15                 }
16                 // last row
17                 else {
18                     System.out.print("*");
19                 }
20             }

```



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```
24 |     }
    }
```

Output:

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

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8. Pyramid star pattern in Java

The most famous star pattern is the [pyramid pattern](#).

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

Steps to create a pyramid Java pattern programs:

1. Take the size and create an external loop to print all rows.
2. Inside the outer loop, we have to create 2 inner loops. First for printing spaces and second for printing stars.
3. print number of spaces equal to size minus the outer loop index in the first inner loop.
4. Inside the second inner loop, print the number of stars equal to 2 times the outer loop index minus 1.
5. At the end of these 2 inner loops create a new line.

```
1 | public class pyramid {  
2 |     // pyramid star pattern
```



```

7   for (int i = 0; i < size; i++) {
8     // print spaces
9     for (int j = 0; j < size - i - 1; j++) {
10       System.out.print(" ");
11     }
12     // print stars
13     for (int k = 0; k < 2 * i + 1; k++) {
14       System.out.print("*");
15     }
16     System.out.println();
17   }
18 }
```

Output:

```

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

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9. Reverse pyramid star pattern in Java

```

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

The **reverse pyramid star pattern** is the same as the pyramid star pattern but rotated 180 degrees.

This also follows the same logic as the pyramid star pattern just a different loop order.

```

public class reversePyramid {
  public static void main(String[] args) {
    // size of the pyramid
    int size = 5;
    for (int i = 0; i < size; i++) {
      // print spaces
```



```

10     // print stars
11     for (int k = 0; k < 2 * (size - i) - 1; k
12         System.out.print("*");
13     }
14     System.out.println();
15 }
16 }
17 }
```

Output:

```

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

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10. Hollow pyramid pattern program in Java

The **hollow pyramid** is a hollow pyramid with stars only at corners.

```

*
* *
*   *
```



Here are the steps to create a **Hollow pyramid pattern program in Java**:

1. Set size of the hollow pyramid.
 2. Inside the external loop, we have to create 2 inner loops. First for printing spaces and second for printing stars.
 3. The first loop print a number of spaces equal to size minus the outer loop index.
 4. The second inner loop will run for 2 times the outer loop index plus 1 and print star only at the first and last index of the row.
 5. Keep changing line after each row.

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```
1 public class hollowPyramid {  
2     public static void main(String[] args) {  
3         // size of the pyramid  
4         int size = 5;  
5         for (int i = 0; i < size; i++) {  
6             // print spaces  
7             for (int j = 0; j < size - i - 1; j++) {  
8                 System.out.print(" ");  
9             }  
10            // print stars  
11            for (int k = 0; k < 2 * i + 1; k++) {  
12                if (i == 0 || i == size - 1) {  
13                    System.out.print("*");  
14                }  
15                else {  
16                    if (k == 0 || k == 2 * i) {  
17                        System.out.print("*");  
18                    }  
19                    else {  
20                        System.out.print(" ");  
21                    }  
22                }  
23            }  
24        }  
25    }
```



```
    | }
}
```

Output:

```

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

```

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11. Diamond star pattern in Java

You can see here the [diamond star pattern](#). It is made up of the pyramid and the reverse pyramid pattern.

```

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

```

If you combine the code of pyramid and reverse pyramid in the right order, you will get the diamond star pattern.

Here is complete code to create diamond pattern program in Java:

```
public class diamond {
    public static void main(String[] args) {
        int size = 5;
        // upside pyramid
        for (int i = 1; i <= size; i++) {
```



```

9      }
10     // printing star
11     for (int k = 0; k < i * 2 - 1; k++) {
12         System.out.print("*");
13     }
14     System.out.println();
15 }
16 // downside pyramid
17 for (int i = 1; i <= size - 1; i++) {
18     // printing spaces
19     for (int j = 0; j < i; j++) {
20         System.out.print(" ");
21     }
22     // printing star
23     for (int k = (size - i) * 2 - 1; k > 0; k--)
24         System.out.print("*");
25     }
26     System.out.println();
27 }
28 }
29 }
```

Output:

```

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

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12. Hollow diamond star pattern in Java



```

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

```

Here is complete code to create hollow diamond pattern program in Java:

```

public class hollowDiamond {
    public static void main(String[] args) {
        int size = 5;
        // upside pyramid
        for (int i = 1; i <= size; i++) {
            // printing spaces
            for (int j = size; j > i; j--) {
                System.out.print(" ");
            }
            // printing star
            for (int k = 0; k < i * 2 - 1; k++) {
                if (k == 0 || k == 2 * i - 2) {
                    System.out.print("*");
                } else {
                    System.out.print(" ");
                }
            }
            System.out.println();
        }
        // downside triangle
        for (int i = 1; i < size; i++) {
            // printing spaces
            for (int j = 0; j < i; j++) {
                System.out.print(" ");
            }
        }
    }
}

```



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```

30         System.out.print("*");
31     }
32     else {
33         System.out.print(" ");
34     }
35 }
36 System.out.println();
37 }
38 }
39 }
```

Output:

```

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

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13. Hourglass star pattern in Java

You can see below the [hourglass pattern](#). It is a combination of reverse pyramid and pyramid pattern.

```

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

Here is complete code to create hourglass pattern program in Java:

```

public class hourGlass {
    public static void main(String[] args) {
        int size = 5;
        // reversed pyramid star pattern
        for (int i = 0; i < size; i++) {
```



```
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
```



Output:



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

14. Right pascal star pattern



```

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

```

You can see in the above pattern it is a combination of the right triangle star pattern and reversed triangle star pattern together. Here is the complete code for the right pascal pattern program in Java.

```

1 public class leftPascal {
2     public static void main(String[] args) {
3         // left pasal triangle
4         int size = 5;
5
6         for (int i = 1; i <= size; i++) {
7             for (int j = 0; j < i; j++) {
8                 System.out.print("*");
9             }
10            System.out.println();
11        }
12
13        for (int i = 1; i <= size - 1; i++) {
14            for (int j = 0; j < size - i; j++) {
15                System.out.print("*");
16            }
17            System.out.println();
18        }
19    }
20 }

```

Output:



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```

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

```



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15. Left pascal star pattern

The **left pascal star pattern** is the mirror image of the right pascal star pattern and you have to work with spaces also in this.

```

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

```

Here is complete code to create **left pascal pattern** program in Java:

```

1 public class leftPascal {
2     public static void main(String[] args) {
3         // left pasal triangle
4         int size = 5;
5
6         for (int i = 1; i <= size; i++) {
7             for (int j = 0; j < size - i; j++) {
8                 System.out.print(" ");
9             }

```



```

13     System.out.println();
14 }
15 for (int i = 1; i <= size - 1; i++) {
16     for (int j = 0; j < i; j++) {
17         System.out.print(" ");
18     }
19     for (int k = 0; k < size - i; k++) {
20         System.out.print("*");
21     }
22     System.out.println();
23 }
24 }
25 }
```

Output:

```

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

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16. Heart pattern

```

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



Heart star pattern is quite complex pattern. Here is complete code to create heart pattern program in Java:

```

1  public class heart {
2      public static void main(String[] args) {
3          // heart star pattern
4          int size = 6;
5
6          for (int i = size / 2; i < size; i += 2) {
7              // print first spaces
8              for (int j = 1; j < size - i; j += 2) {
9                  System.out.print(" ");
10             }
11             // print first stars
12             for (int j = 1; j < i + 1; j++) {
13                 System.out.print("*");
14             }
15             // print second spaces
16             for (int j = 1; j < size - i + 1; j++) {
17                 System.out.print(" ");
18             }
19             // print second stars
20             for (int j = 1; j < i + 1; j++) {
21                 System.out.print("*");
22             }
23             System.out.println();
24         }
25         // lower part
26         // inverted pyramid
27         for (int i = size; i > 0; i--) {
28             for (int j = 0; j < size - i; j++) {
29                 System.out.print(" ");
30             }
31             for (int j = 1; j < i * 2; j++) {
32                 System.out.print("*");
33             }
34             System.out.println();
35     }

```



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Output:

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

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17. Plus pattern program in Java

The **plus pattern** has the shape of the mathematical plus sign (+).

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

Here is complete code to create plus pattern program in Java:

```
public class plus {
    public static void main(String[] args) {
        // size of plus, use odd number
        int size = 5;

        for (int i = 0; i < size; i++) {
            for (int j = 0; j < size; j++) {
                // print only stars in middle row
                if (i == size / 2) {
                    System.out.print("*");
                }
                // other than middle row, print star on
            }
        }
    }
}
```



```

16
17     } else {
18         System.out.print(" ");
19     }
20 }
21 System.out.println();
22 }
23 }
24 }
```

Output:

```

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

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18. Cross pattern program in Java

The **cross pattern** has the shape of the mathematical cross sign (X).

```

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

Here is complete code to create cross pattern program in Java:



```

1 public class cross {
2     public static void main(String[] args) {
3         // size of cross, use odd number
4         int size = 5;
5
6         for (int i = 0; i < size; i++) {
7             for (int j = 0; j < size; j++) {
8                 if (i==j || i+j==size-1) {
9                     System.out.print("*");
10                } else {
11                    System.out.print(" ");
12                }
13            }
14            System.out.println();
15        }
16    }
17 }
```

Output:

```

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

We have seen 18 star patterns till now let's see some number patterns.

19. Left triangle number pattern

```

1
12
123
1234
12345
```

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Here is complete code to create a left triangle number pattern program in Java:

```
1 public class leftTrianlge {  
2     public static void main(String[] args) {  
3         int size = 5;  
4         // loop to print the pattern  
5         for (int i = 0; i < size; i++) {  
6             // print column  
7             for (int j = 0; j <= i; j++) {  
8                 System.out.print(j+1);  
9             }  
10            System.out.println();  
11        }  
12    }  
13 }  
14 }
```



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Output:

```
1  
12  
123  
1234  
12345
```

20. Right triangle number pattern

```
1  
12  
123  
1234  
12345
```



Here is complete code to create the right triangle number pattern program in Java:

```

1 public class rightTriangle {
2     public static void main(String[] args) {
3
4         int size = 5;
5         // loop to print the pattern
6         for (int i = 0; i < size; i++) {
7             // print spaces
8             for (int j = 1; j < size - i; j++) {
9                 System.out.print(" ");
10            }
11            // print number
12            for (int k = 0; k <= i; k++) {
13                System.out.print(k+1);
14            }
15            System.out.println();
16        }
17    }
18 }
```



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Output:

```

1
12
123
1234
12345
```

21. Number pyramid pattern

The **number pyramid pattern** has the shape of the mathematical number pyramid.

```
1234567
123456789
```

Here is complete code to create number pyramid pattern program in Java:

```
1 public class numberPyramid {
2     // pyramid stnumberar pattern
3     public static void main(String[] args) {
4
5         int size = 5;
6         for (int i = 0; i < size; i++) {
7             // print spaces
8             for (int j = 0; j < size - i - 1; j++) {
9                 System.out.print(" ");
10            }
11            // print number
12            for (int k = 0; k < 2 * i + 1; k++) {
13                System.out.print(k+1);
14            }
15            System.out.println();
16        }
17    }
18 }
```



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Output:

```
1
123
12345
1234567
123456789
```

22. Number pyramid reverse pattern

The **number pyramid reverse pattern** has the shape of
the mathematical number pyramid in reverse order.



```

123456789
1234567
12345
123
1

```

Here is complete code to create a number pyramid reverse pattern in Java:

```

1 public class reverseNumberPyramid {
2     public static void main(String[] args) {
3
4         int size = 5;
5         for (int i = 0; i < size; i++) {
6             // print spaces
7             for (int j = 0; j < i; j++) {
8                 System.out.print(" ");
9             }
10            // print number
11            for (int k = 0; k < 2 * (size - i) - 1; k
12                System.out.print(k+1);
13            }
14            System.out.println();
15        }
16    }
17 }

```

Output:

```

123456789
1234567
12345
123
1

```



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23. Hollow number pyramid pattern

The **hollow number pyramid pattern** has the shape of the mathematical number pyramid with hollow inside.

```

1
1 2
1   2
1     2
123456789

```



```

1 public class hollowNumberPyramid {
2     public static void main(String[] args) {
3
4         int size = 5;
5         for (int i = 0; i < size; i++) {
6             // print spaces
7             for (int j = 0; j < size - i - 1; j++) {
8                 System.out.print(" ");
9             }
10            // print number
11            int num = 1;
12            for (int k = 0; k < 2 * i + 1; k++) {
13                if (i == 0 || i == size - 1) {
14                    System.out.print(num++);
15                } else {
16                    if (k == 0 || k == 2 * i) {
17                        System.out.print(num++);
18                    } else {
19                        System.out.print(" ");
20                    }
21                }
22            }
23            System.out.println();
24        }
25    }
26 }

```

Output:

```

1
1 2
1   2
1       2
123456789

```

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24. Number diamond pattern

The **number diamond pattern** has the shape of the diamond made of numbers.

```

1
123
12345
1234567
123456789
1234567
12345

```



Here is complete code to create number diamond pattern in Java:

```

1 public class numberDiamond {
2     public static void main(String[] args) {
3         int size = 5;
4         int num = 1;
5         // upside pyramid
6         for (int i = 1; i <= size; i++) {
7             // printing spaces
8             for (int j = size; j > i; j--) {
9                 System.out.print(" ");
10            }
11            // printing number
12            for (int k = 0; k < i * 2 - 1; k++) {
13                System.out.print(num++);
14            }
15            // set the number to 1
16            num = 1;
17            System.out.println();
18        }
19        // downside pyramid
20        for (int i = 1; i <= size - 1; i++) {
21            // printing spaces
22            for (int j = 0; j < i; j++) {
23                System.out.print(" ");
24            }
25            // printing number
26            for (int k = (size - i) * 2 - 1; k > 0; k)
27                System.out.print(num++);
28            }
29            // set num to 1
30            num = 1;
31            System.out.println();
32        }
33    }
34 }
```

Output:

```

1
123
12345
1234567
123456789
1234567
```



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25. Hollow number diamond pattern

The **hollow number diamond pattern** has the shape of the diamond made of numbers with hollow inside.

```

1
1 2
1   2
1     2
1       2
1         2
1           2
1             2
1               2
1                 2
1                   2
1                     2
1

```

Here is complete code to create hollow number diamond pattern program in Java:

```

public class hollowDiamond {
    public static void main(String[] args) {
        int size = 5, num = 1;
        // upside pyramid
        for (int i = 1; i <= size; i++) {
            // printing spaces
            for (int j = size; j > i; j--) {
                System.out.print(" ");
            }
            // printing number
            for (int k = 0; k < i * 2 - 1; k++) {
                if (k == 0 || k == 2 * i - 2) {
                    System.out.print(num++);
                } else {
                    System.out.print(" ");
                }
            }
            // set the number to 1
            num = 1;
            System.out.println();
        }
        // downside triangle
        for (int i = 1; i < size; i++) {
            // printing spaces
            for (int j = 0; j < i; j++) {
                System.out.print(" ");
            }
            // printing number
            for (int k = (size - i) * 2 - 1; k >= 1;

```



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```

33         System.out.print(" ");
34     }
35   }
36   // set the number to 1
37   num = 1;
38   System.out.println();
39 }
40 }
41 }

```

Output:

```

1
1 2
1  2
1    2
1      2
1        2
1          2
1            2
1              2
1                2
1                  2
1

```

Let's now create some patterns that use alphabets instead of stars or numbers.

26. Alphabet pyramid pattern

The **alphabet pyramid pattern** has the shape of the pyramid made of alphabets.

```

A
ABC
ABCDE
ABCDEFG
ABCDEFGH

```

Here is complete code to create alphabet pyramid pattern program in Java:

```

1 public class alphabetPyramid {
2     // pyramid alphabet pattern
3     public static void main(String[] args) {
4
5         int size = 5, alpha = 65;
6         for (int i = 0; i < size; i++) {

```



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```

10
11     }
12     // print alphabets
13     for (int k = 0; k < 2 * i + 1; k++) {
14         System.out.print((char)(alpha+k));
15     }
16     System.out.println();
17 }
18 }
```

Output:

```

A
ABC
ABCDE
ABCDEFG
ABCDEFGHI
```

27. Reverse alphabet pyramid pattern

The **reverse alphabet pyramid pattern** has the shape of a reversed pyramid made of alphabets.

```

ABCDEFGHI
ABCDEFG
ABCDE
ABC
A
```

Here is complete code to create reverse alphabet pyramid Java pattern program:

```

public class reverseAlphabetPyramid {
    public static void main(String[] args) {
        // size of the square
        int size = 5, alpha = 65;
        for (int i = 0; i < size; i++) {
            // print spaces
            for (int j = 0; j < i; j++) {
                System.out.print(" ");
            }
            // print alphabets
            for (int k = 0; k < 2 * (size - i) - 1; k)
                System.out.print((char) (alpha + k));
        }
        System.out.println();
```



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```

    }
}

◀ ▶

```

Output:

```

ABCDEFGHI
ABCDEFG
ABCDE
ABC
A

```

28. Hollow alphabet pyramid pattern

The **hollow alphabet pyramid pattern** has the shape pyramid hollow inside which is made of alphabets.

```

A
B C
D E
◀ ▶
HIJKLMNOP

```

Here is complete code to create a hollow alphabet pyramid Java pattern program:

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```

public class hollowAlphabetPyramid {
    public static void main(String[] args) {

        int size = 5, alpha = 65, num = 0;
        for (int i = 0; i < size; i++) {
            // print spaces
            for (int j = 0; j < size - i - 1; j++) {
                System.out.print(" ");
            }
            // print alphabets
            for (int k = 0; k < 2 * i + 1; k++) {

```



```

15         if (k == 0 || k == 2 * i) {
16             System.out.print((char)(alpha+num++))
17         } else {
18             System.out.print(" ");
19         }
20     }
21   }
22   System.out.println();
23 }
24 }
25 }
```

Output:

```

A
B C
D   E
F   G
HIJKLMNOP
```

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29. Alphabet diamond pattern

The [alphabet diamond pattern](#) has the shape of a diamond made of alphabets.

```

A
ABC
ABCDE
ABCDEFG
ABCDEFGHI
ABCDEFG
ABCDE
ABCDE
ABC
A
```

Here is complete code to create alphabet diamond Java pattern program:

```

public class alphabetDiamond {
    public static void main(String[] args) {
        int size = 5;
        int alpha = 65;
        int num = 0;
        // upside pyramid
        for (int i = 1; i <= size; i++) {
            // printing spaces
```

```

12
13     }
14     // printing alphabets
15     for (int k = 0; k < i * 2 - 1; k++) {
16         System.out.print((char)(alpha+num++));
17     }
18     // set the number to 0
19     num = 0;
20     System.out.println();
21
22     // downside pyramid
23     for (int i = 1; i <= size - 1; i++) {
24         // printing spaces
25         for (int j = 0; j < i; j++) {
26             System.out.print(" ");
27         }
28         // printing alphabets
29         for (int k = (size - i) * 2 - 1; k > 0; k--)
30             System.out.print((char)(alpha+num++));
31         }
32         // set num to 0
33         num = 0;
34         System.out.println();
35     }
}

```

Output:

```

A
ABC
ABCDE
ABCDEFG
ABCDEFGH
ABCDEFG
ABCDE
ABC
A

```

30. Hollow alphabet diamond pattern

The **hollow alphabet diamond pattern** has the shape of a diamond hollow inside which is made of alphabets.

A

(X)

```

A      B
 A    B
  A B
   A

```

Here is complete code to create hollow alphabet diamond Java pattern program:

```

public class hollowAlphabetDiamond {
    public static void main(String[] args) {
        int size = 5;
        int alpha = 65;
        int num = 0;
        // upside pyramid
        for (int i = 1; i <= size; i++) {
            // printing spaces
            for (int j = size; j > i; j--) {
                System.out.print(" ");
            }
            // printing alphabets
            for (int k = 0; k < i * 2 - 1; k++) {
                if (k == 0 || k == 2 * i - 2) {
                    System.out.print((char)(alpha+num++));
                } else {
                    System.out.print(" ");
                }
            }
            // set the number to 0
            num = 0;
            System.out.println();
        }
        // downside triangle
        for (int i = 1; i < size; i++) {
            // printing spaces
            for (int j = 0; j < i; j++) {
                System.out.print(" ");
            }
            // printing alphabets
            for (int k = (size - i) * 2 - 1; k >= 1;
                 if (k == 1 || k == (size - i) * 2 - 1)
                     System.out.print((char)(alpha+num++));
                 } else {
                     System.out.print(" ");
                 }
            }
            // set the number to 0
            num = 0;
            System.out.println();
    }
}

```



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```
    }  
}
```

Output:

```
 A  
 A B  
 A   B  
 A   B  
 A     B  
 A     B  
 A   B  
 A B  
 A
```

Conclusion

In this article, we have discussed 30 different java pattern programs in different ways. We used stars, numbers and, alphabets to create patterns.

Also, look at [star pattern in javascript](#) and [star pattern in python](#).



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