Assignment No:-50

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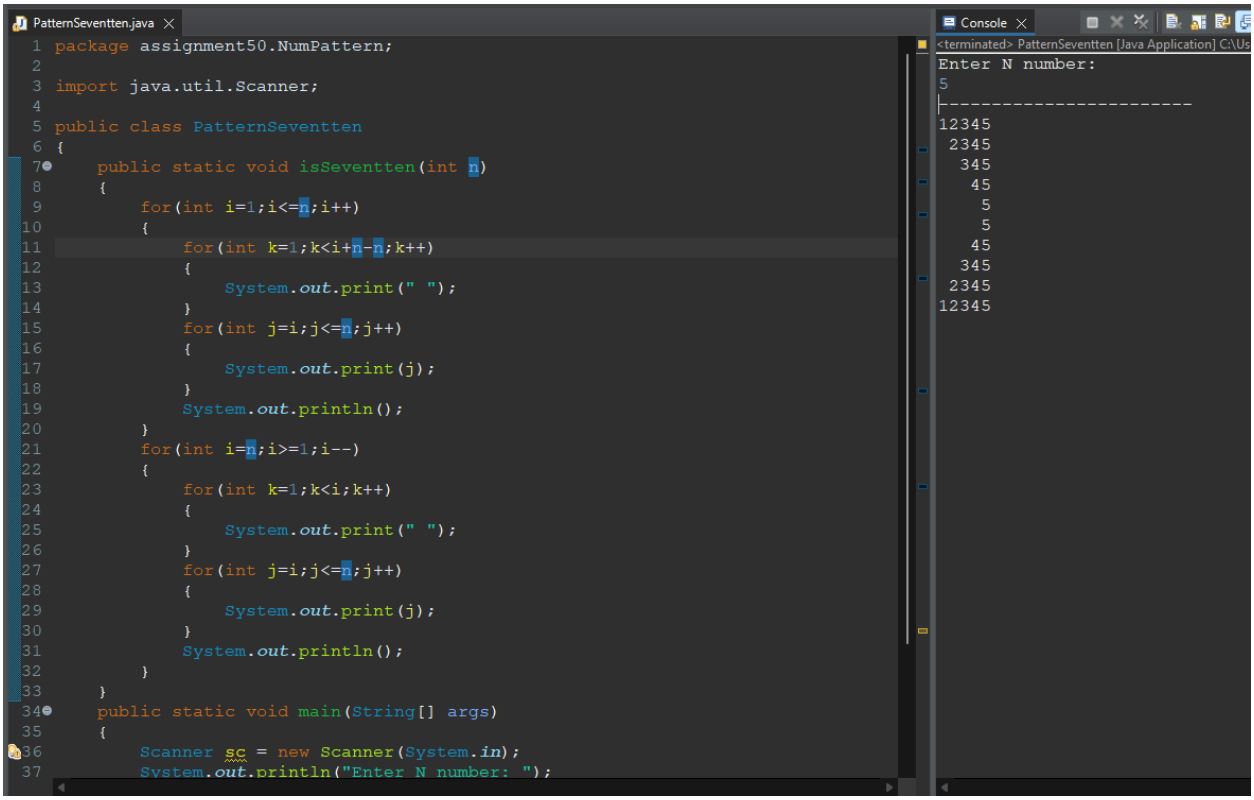
Batch: - Delta - DCA (Java) 2024 Date:-21/7/2024

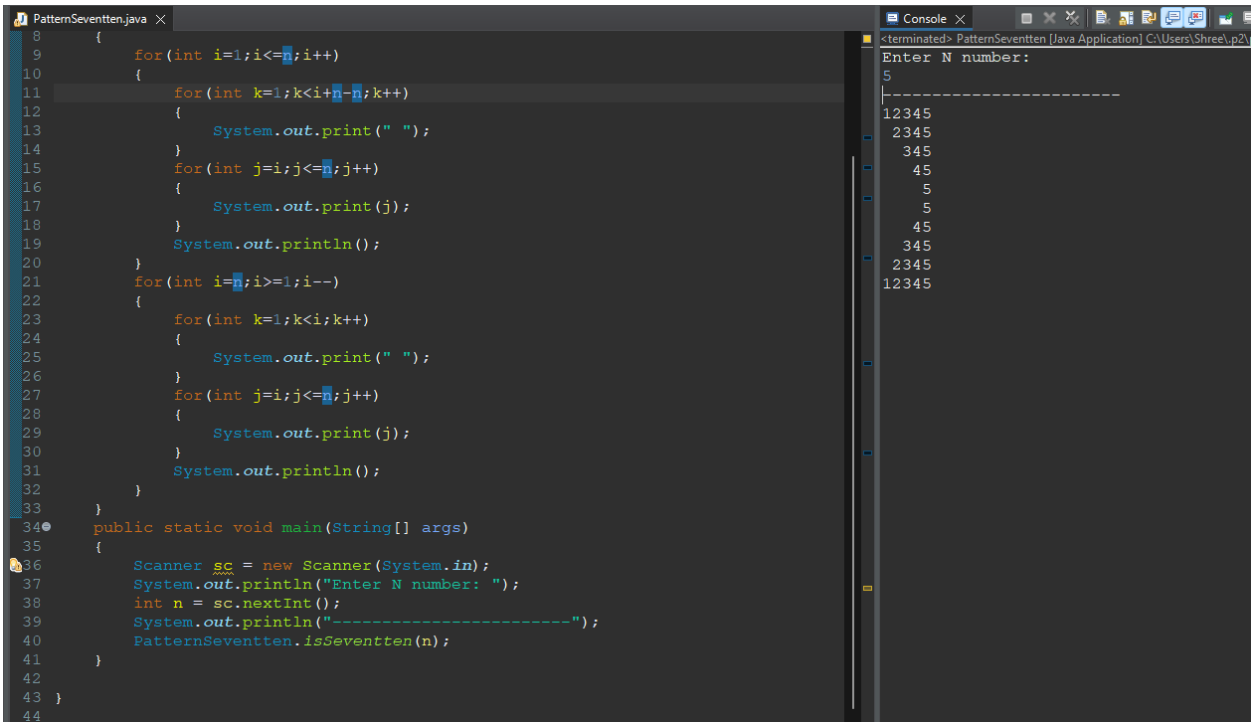
Q.1

```
12345
 2345
  345
   45
    5
    5
   45
  345
 2345
12345
```



```java
package assignment50.NumPattern;

import java.util.Scanner;

public class PatternSeventten
{
    public static void isSeventten(int n)
    {
        for(int i=1;i<=n;i++)
        {
            for(int k=1;k<i+n-n;k++)
            {
                System.out.print(" ");
            }
            for(int j=i;j<=n;j++)
            {
                System.out.print(j);
            }
            System.out.println();
        }
        for(int i=n;i>=1;i--)
        {
            for(int k=1;k<i;k++)
            {
                System.out.print(" ");
            }
            for(int j=i;j<=n;j++)
            {
                System.out.print(j);
            }
            System.out.println();
        }
    }
    public static void main(String[] args)
    {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter N number: ");
```

```
Enter N number:
5
-----------------------
12345
 2345
  345
   45
    5
    5
   45
  345
 2345
12345
```




```java
    {
        for(int i=1;i<=n;i++)
        {
            for(int k=1;k<i+n-n;k++)
            {
                System.out.print(" ");
            }
            for(int j=i;j<=n;j++)
            {
                System.out.print(j);
            }
            System.out.println();
        }
        for(int i=n;i>=1;i--)
        {
            for(int k=1;k<i;k++)
            {
                System.out.print(" ");
            }
            for(int j=i;j<=n;j++)
            {
                System.out.print(j);
            }
            System.out.println();
        }
    }
    public static void main(String[] args)
    {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter N number: ");
        int n = sc.nextInt();
        System.out.println("----------");
        PatternSeventten.isSeventten(n);
    }

}

```

Q.2

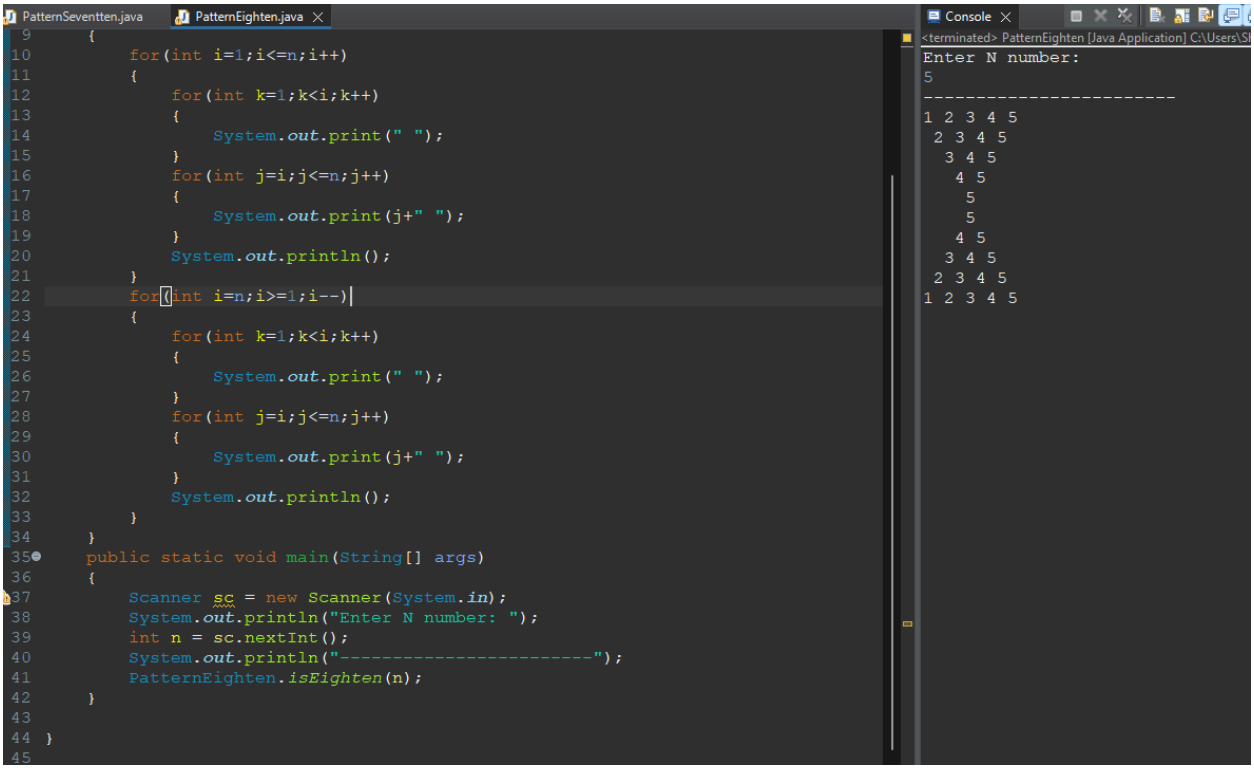
```
1 2 3 4 5
 2 3 4 5
  3 4 5
   4 5
    5
    5
   4 5
  3 4 5
 2 3 4 5
1 2 3 4 5
```

PatternSeventten.java PatternEighten.java

```
1  package assignment50.NumPattern;
2
3  import java.util.Scanner;
4
5  public class PatternEighten
6  {
7
8      public static void isEighten(int n)
9      {
10         for(int i=1;i<=n;i++)
11         {
12             for(int k=1;k<i;k++)
13             {
14                 System.out.print(" ");
15             }
16             for(int j=i;j<=n;j++)
17             {
18                 System.out.print(j+" ");
19             }
20             System.out.println();
21         }
22         for(int i=n;i>=1;i--)
23         {
24             for(int k=1;k<i;k++)
25             {
26                 System.out.print(" ");
27             }
28             for(int j=i;j<=n;j++)
29             {
30                 System.out.print(j+" ");
31             }
32             System.out.println();
33         }
34     }
35     public static void main(String[] args)
36     {
37         Scanner sc = new Scanner(System.in);
```

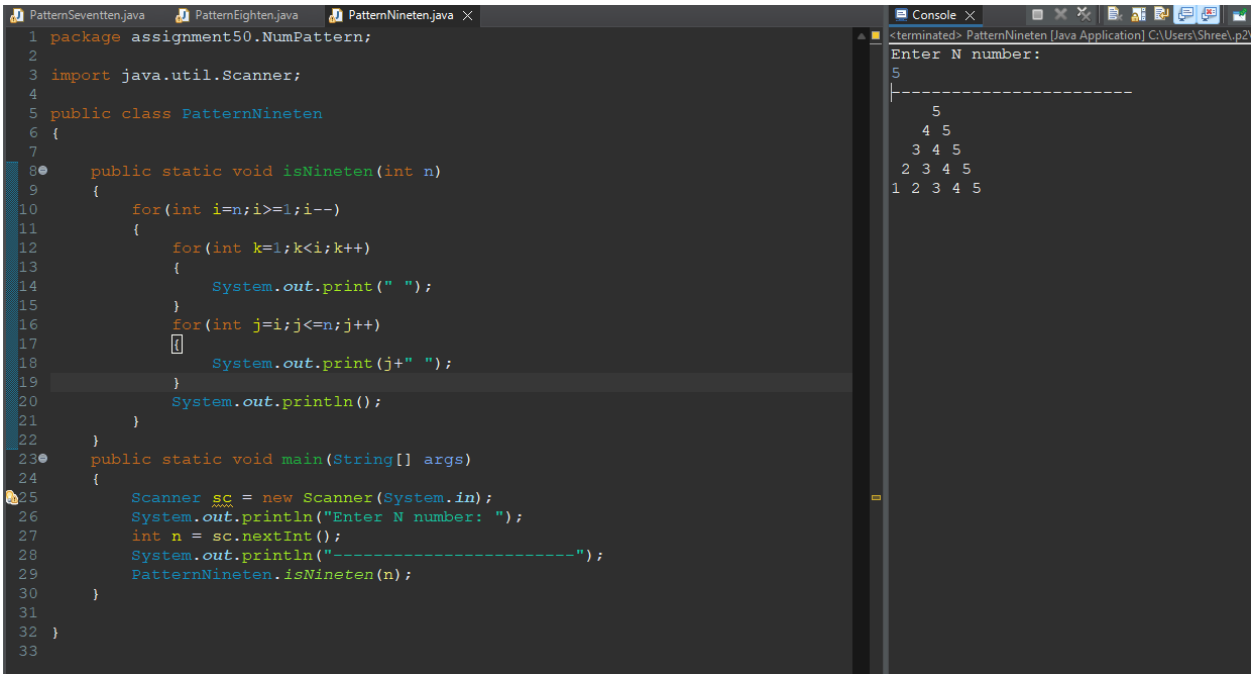
Console

```
<terminated> PatternEighten [Java Application] C:\Users\Shree\.p2\pool\plu
Enter N number:
5
------------------------
1 2 3 4 5
 2 3 4 5
  3 4 5
   4 5
    5
    5
   4 5
  3 4 5
 2 3 4 5
1 2 3 4 5
```


PatternSeventten.java
PatternEighten.java
{
for(int i=1;i<=n;i++)
{
for(int k=1;k<i;k++)
{
System.out.print(" ");
}
for(int j=i;j<=n;j++)
{
System.out.print(j+" ");
}
System.out.println();
}
for(int i=n;i>=1;i--)
{
for(int k=1;k<i;k++)
{
System.out.print(" ");
}
for(int j=i;j<=n;j++)
{
System.out.print(j+" ");
}
System.out.println();
}
}
public static void main(String[] args)
{
Scanner sc = new Scanner(System.in);
System.out.println("Enter N number: ");
int n = sc.nextInt();
System.out.println("------------------------");
PatternEighten.isEighten(n);
}
}
Console
<terminated> PatternEighten [Java Application] C:\Users\
Enter N number:
5
----
1 2 3 4 5
2 3 4 5
3 4 5
4 5
5
5
4 5
3 4 5
2 3 4 5
1 2 3 4 5

Q.3

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

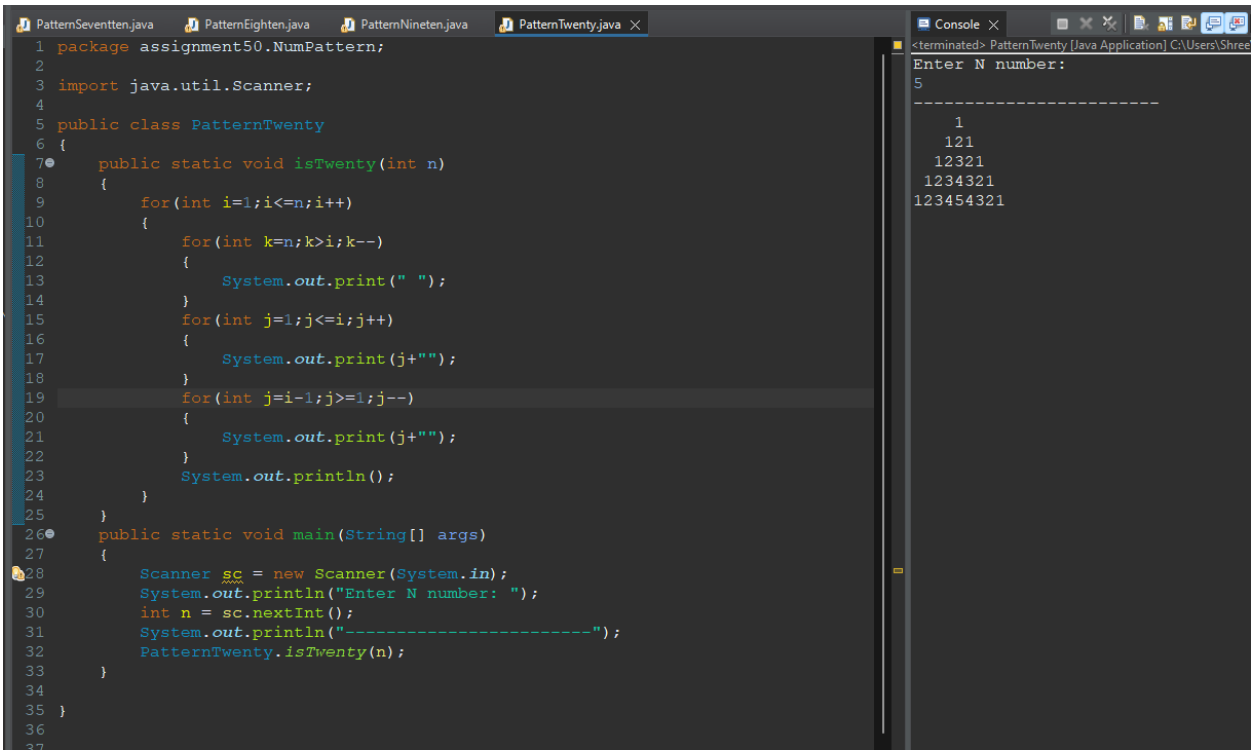


```
PatternSeventten.java  PatternEighten.java  PatternNineten.java

1  package assignment50.NumPattern;
2
3  import java.util.Scanner;
4
5  public class PatternNineten
6  {
7
8      public static void isNineten(int n)
9      {
10         for(int i=n;i>=1;i--)
11         {
12             for(int k=1;k<i;k++)
13             {
14                 System.out.print(" ");
15             }
16             for(int j=i;j<=n;j++)
17             {
18                 System.out.print(j+" ");
19             }
20             System.out.println();
21         }
22     }
23     public static void main(String[] args)
24     {
25         Scanner sc = new Scanner(System.in);
26         System.out.println("Enter N number: ");
27         int n = sc.nextInt();
28         System.out.println("------------------------");
29         PatternNineten.isNineten(n);
30     }
31
32 }
33
```

```
Console
<terminated> PatternNineten [Java Application] C:\Users\Shree\.p2\
Enter N number:
5
------------------------
    5
  4 5
3 4 5
2 3 4 5
1 2 3 4 5
```

Q.4

```
    1
   121
  12321
 1234321
123454321
```

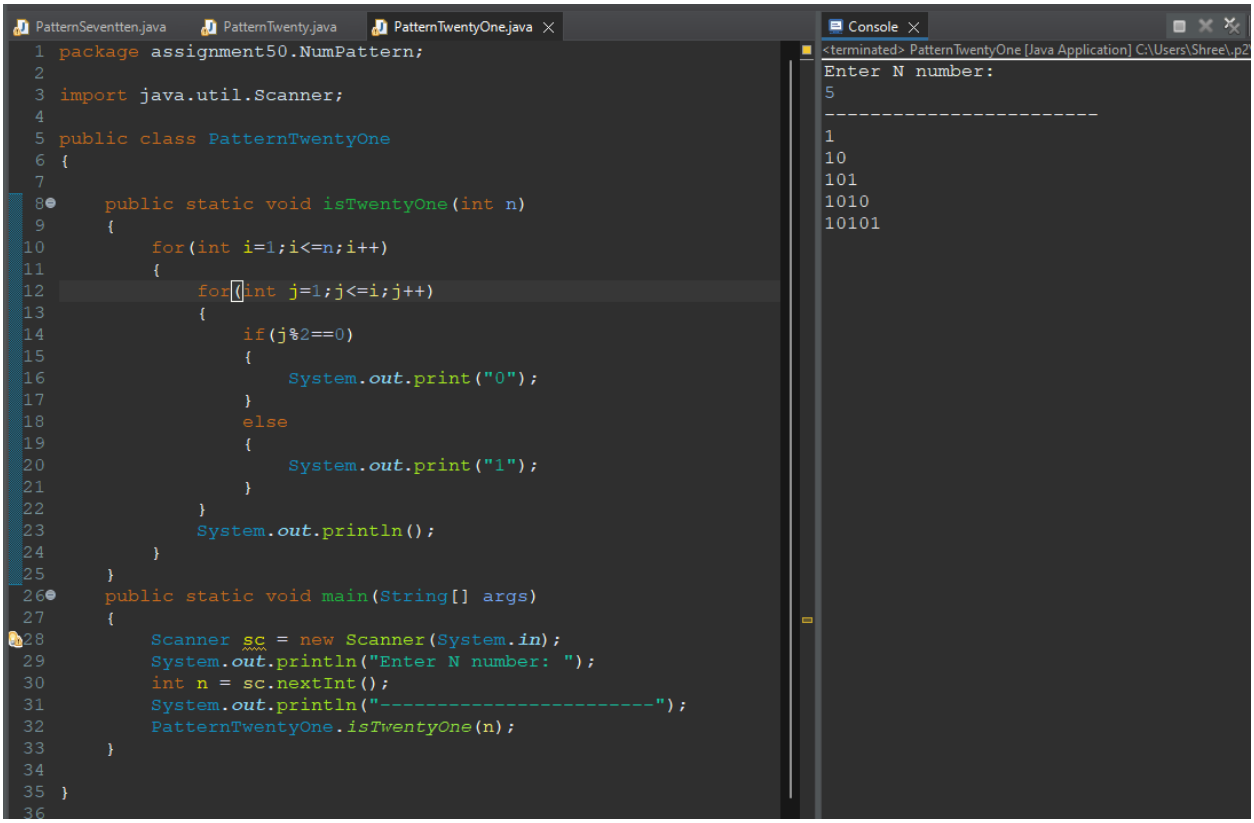


```
PatternSeventten.java  PatternEighten.java  PatternNineten.java  PatternTwenty.java

1  package assignment50.NumPattern;
2
3  import java.util.Scanner;
4
5  public class PatternTwenty
6  {
7      public static void isTwenty(int n)
8      {
9          for(int i=1;i<=n;i++)
10         {
11             for(int k=n;k>i;k--)
12             {
13                 System.out.print(" ");
14             }
15             for(int j=1;j<=i;j++)
16             {
17                 System.out.print(j+"");
18             }
19             for(int j=i-1;j>=1;j--)
20             {
21                 System.out.print(j+"");
22             }
23             System.out.println();
24         }
25     }
26     public static void main(String[] args)
27     {
28         Scanner sc = new Scanner(System.in);
29         System.out.println("Enter N number: ");
30         int n = sc.nextInt();
31         System.out.println("------------------------");
32         PatternTwenty.isTwenty(n);
33     }
34
35 }
36
```

```
Console
<terminated> PatternTwenty [Java Application] C:\Users\Shree
Enter N number:
5
------------------------
    1
   121
  12321
 1234321
123454321
```

Q.5

```
1
10
101
1010
10101
```



Q.6

```
11111
11122
11333
14444
55555
```

PatternSeventten.ja... | PatternTwenty.java | PatternTwentyOne.j... | PatternTwentyTwo.j... | PatternTwentyThree...

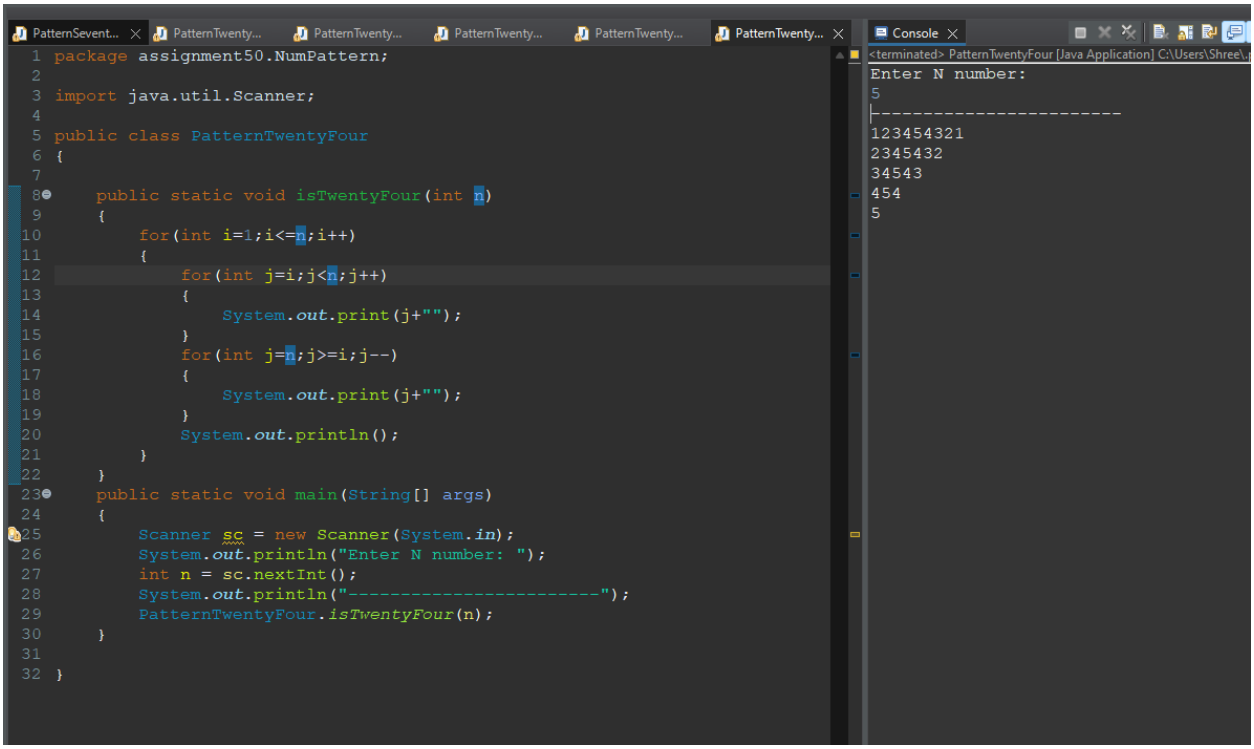
```java
package assignment50.NumPattern;

import java.util.Scanner;

public class PatternTwentyThree
{
    public static void isTwentyThree(int n)
    {
        int x=1;
        for(int i=1;i<=n;i++)
        {
            for(int j=n;j>i;j--)
            {
                System.out.print("1");
            }
            for(int j=1;j<=i;j++)
            {
                System.out.print(x+"");
            }
            System.out.println();
            x++;
        }
    }
    public static void main(String[] args)
    {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter N number: ");
        int n = sc.nextInt();
        System.out.println("------------------------");
        PatternTwentyThree.isTwentyThree(n);
    }

}

```

Console

```
<terminated> PatternTwentyThree [Java Application] C:\Users\Shre
Enter N number:
5
------------------------
11111
11122
11333
14444
55555
```

Q.7

```
123454321
2345432
34543
454
5
```

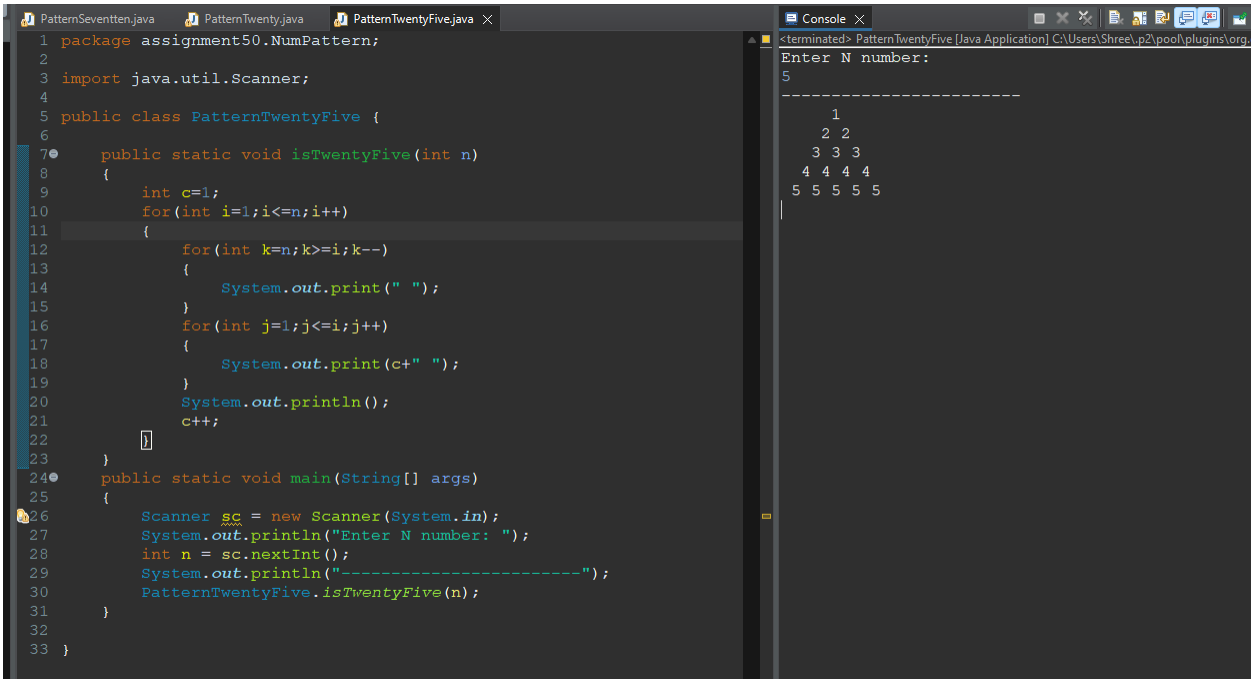


```java
package assignment50.NumPattern;

import java.util.Scanner;

public class PatternTwentyFour
{

    public static void isTwentyFour(int n)
    {
        for(int i=1;i<=n;i++)
        {
            for(int j=i;j<n;j++)
            {
                System.out.print(j+"");
            }
            for(int j=n;j>=i;j--)
            {
                System.out.print(j+"");
            }
            System.out.println();
        }
    }
    public static void main(String[] args)
    {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter N number: ");
        int n = sc.nextInt();
        System.out.println("------------------------");
        PatternTwentyFour.isTwentyFour(n);
    }

}
```

```
Enter N number:
5
------------------------
123454321
2345432
34543
454
5
```

Q.8

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



PatternSeventten.java | PatternTwenty.java | PatternTwentyFive.java

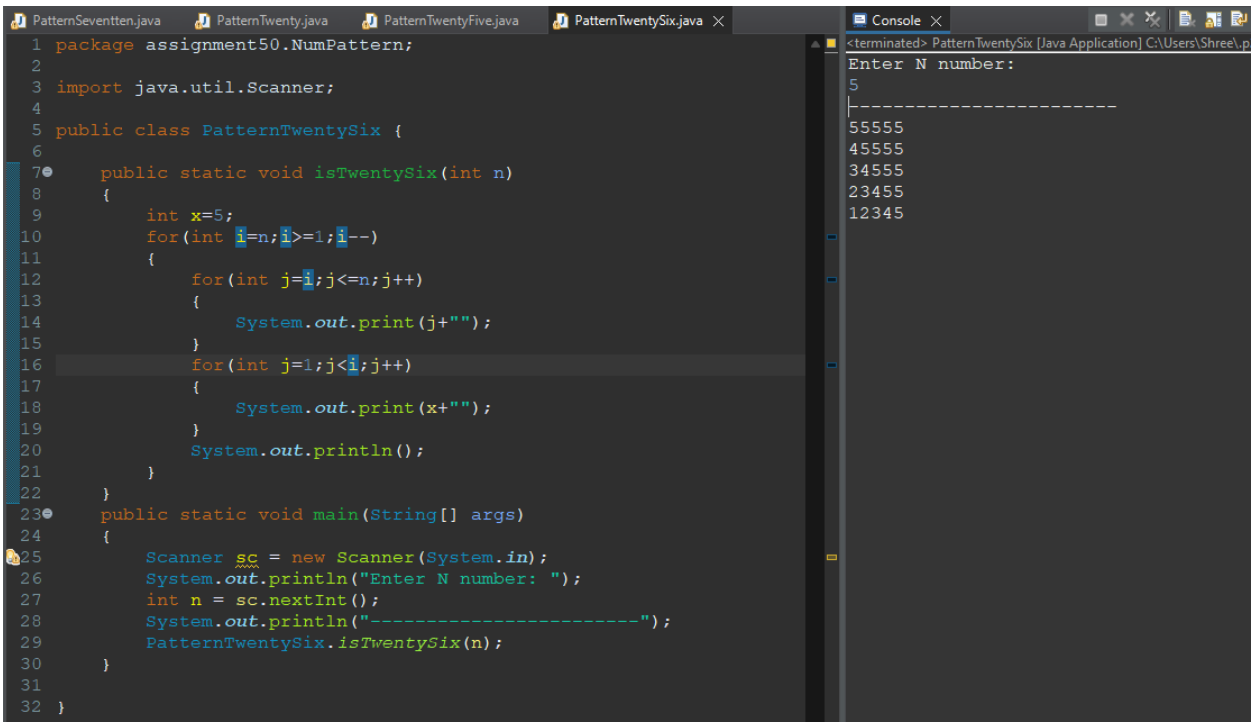
```java
package assignment50.NumPattern;

import java.util.Scanner;

public class PatternTwentyFive {

    public static void isTwentyFive(int n)
    {
        int c=1;
        for(int i=1;i<=n;i++)
        {
            for(int k=n;k>=i;k--)
            {
                System.out.print(" ");
            }
            for(int j=1;j<=i;j++)
            {
                System.out.print(c+" ");
            }
            System.out.println();
            c++;
        }
    }
    public static void main(String[] args)
    {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter N number: ");
        int n = sc.nextInt();
        System.out.println("------------------------");
        PatternTwentyFive.isTwentyFive(n);
    }

}
```

Console

```
<terminated> PatternTwentyFive [Java Application] C:\Users\Shree\.p2\pool\plugins\org.
Enter N number:
5
------------------------
      1
    2 2
  3 3 3
4 4 4 4
5 5 5 5 5
```

Q.9

```
55555
45555
34555
23455
12345
```



Q.10

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

FindMaxPossiblity.java | PatternTwentySeven.java

```
1  package assignment50.NumPattern;
2
3  import java.util.Scanner;
4
5  public class PatternTwentySeven
6  {
7      public static void isTwentySeven(int n)
8      {
9          int c=4;
10         for(int i=1;i<=n;i++)
11         {
12             c=4;
13             int c1=i;
14             for(int j=1;j<=i;j++)
15             {
16                 System.out.print(c1+" ");
17                 c1=c1+c;
18                 c--;
19             }
20             System.out.println();
21         }
22     }
23     public static void main(String[] args)
24     {
25         Scanner sc = new Scanner(System.in);
26         System.out.println("Enter N number: ");
27         int n = sc.nextInt();
28         System.out.println("------------------------");
29         PatternTwentySeven.isTwentySeven(n);
30     }
31
32 }
```

Console

```
<terminated> PatternTwentySeven [Java Application] C:\Users\Shree\.p2\pool\plug
Enter N number:
5
------------------------
1
2 6
3 7 10
4 8 11 13
5 9 12 14 15
```

Q.11

```
1
2  4
3  6  9
4  8  12  16
5  10  15  20  25
6  12  18  24
7  14  21
8  16
9
```

FindMaxPossiblity.java | PatternTwentySeven.java | PatternTwentyEight.java

```java
package assignment50.NumPattern;

import java.util.Scanner;

public class PatternTwentyEight
{
    public static void isTwentyEight(int n)
    {
        int c=1;
        for(int i=1;i<=n;i++)
        {
            int c1=i;
            for(int j=1;j<=i;j++)
            {
                System.out.print((i*j)+" ");
            }
            System.out.println();
        }
        c=6;
        for(int i=1;i<n;i++)
        {
            int c1=1;
            for(int j=n;j>i;j--)
            {
                System.out.print((c1*c)+" ");
                c1++;
            }
            c++;
            System.out.println();
        }
    }
    public static void main(String[] args)
    {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter N number: ");
        int n = sc.nextInt();
        System.out.println("-------------------------");
```

Console

```
<terminated> PatternTwentyEight [Java Application]
Enter N number:
5
-------------------------
1
2 4
3 6 9
4 8 12 16
5 10 15 20 25
6 12 18 24
7 14 21
8 16
9
```

FindMaxPossiblity.java | PatternTwentySeven.java | PatternTwentyEight.java

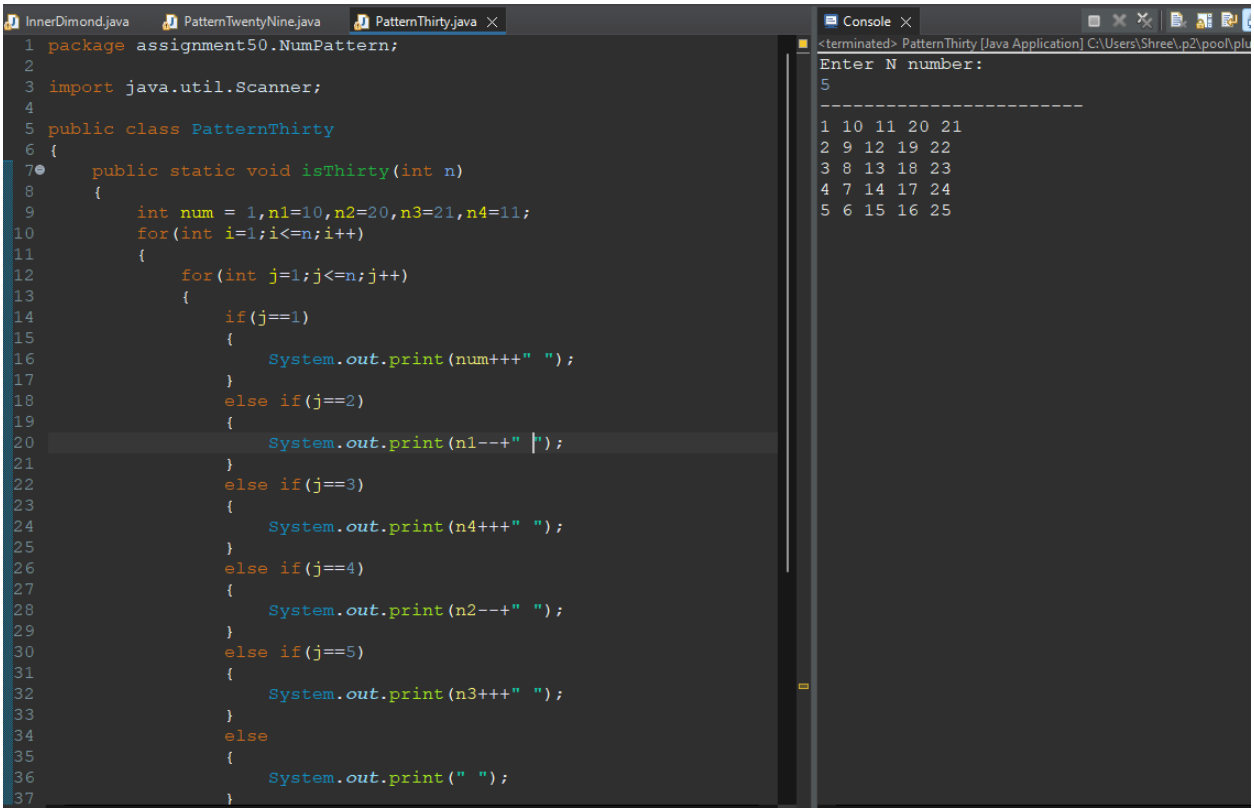
```java
public class PatternTwentyEight
{
    public static void isTwentyEight(int n)
    {
        int c=1;
        for(int i=1;i<=n;i++)
        {
            int c1=i;
            for(int j=1;j<=i;j++)
            {
                System.out.print((i*j)+" ");
            }
            System.out.println();
        }
        c=6;
        for(int i=1;i<n;i++)
        {
            int c1=1;
            for(int j=n;j>i;j--)
            {
                System.out.print((c1*c)+" ");
                c1++;
            }
            c++;
            System.out.println();
        }
    }
    public static void main(String[] args)
    {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter N number: ");
        int n = sc.nextInt();
        System.out.println("-------------------------");
        PatternTwentyEight.isTwentyEight(n);
    }

}
```

Console

```
<terminated> PatternTwentyEight [Java Application]
Enter N number:
5
-------------------------
1
2 4
3 6 9
4 8 12 16
5 10 15 20 25
6 12 18 24
7 14 21
8 16
9
```

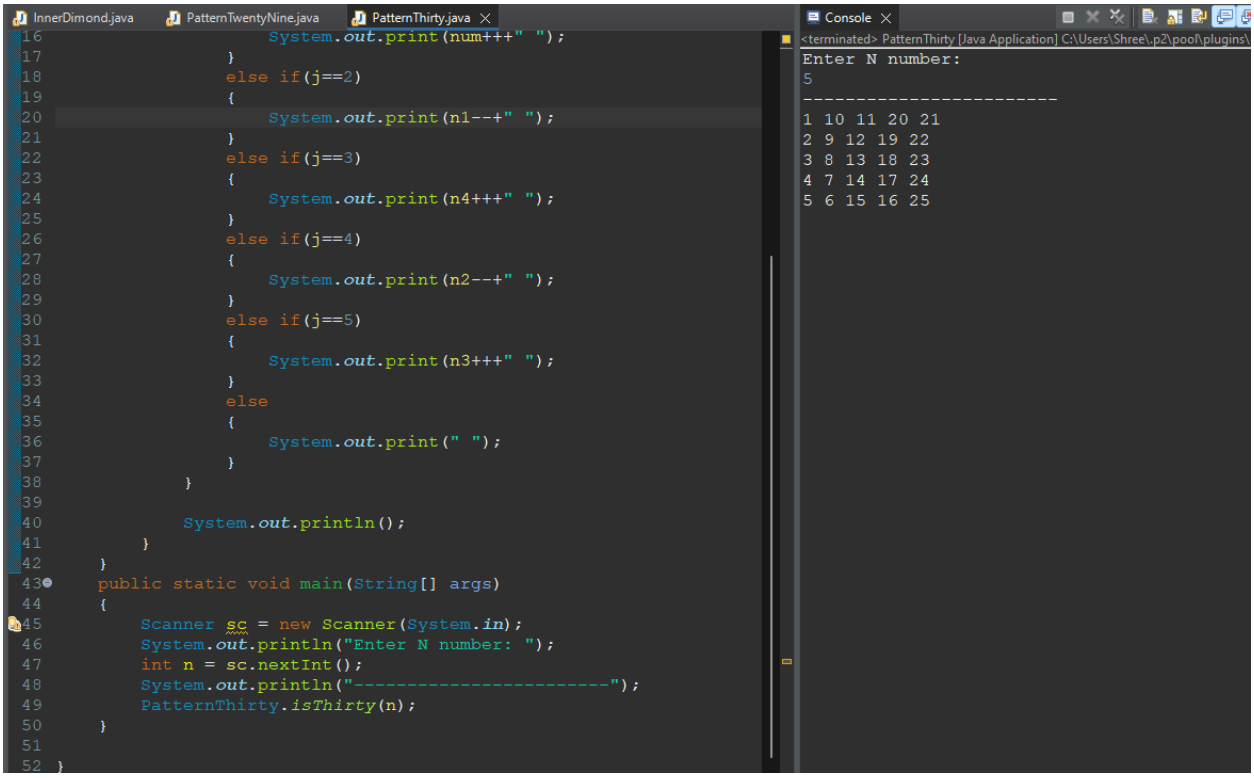
Q.12

Q.13



```
package assignment50.NumPattern;

import java.util.Scanner;

public class PatternThirty
{
    public static void isThirty(int n)
    {
        int num = 1,n1=10,n2=20,n3=21,n4=11;
        for(int i=1;i<=n;i++)
        {
            for(int j=1;j<=n;j++)
            {
                if(j==1)
                {
                    System.out.print(num+++" ");
                }
                else if(j==2)
                {
                    System.out.print(n1--+" ");
                }
                else if(j==3)
                {
                    System.out.print(n4+++" ");
                }
                else if(j==4)
                {
                    System.out.print(n2--+" ");
                }
                else if(j==5)
                {
                    System.out.print(n3+++" ");
                }
                else
                {
                    System.out.print(" ");
                }
```

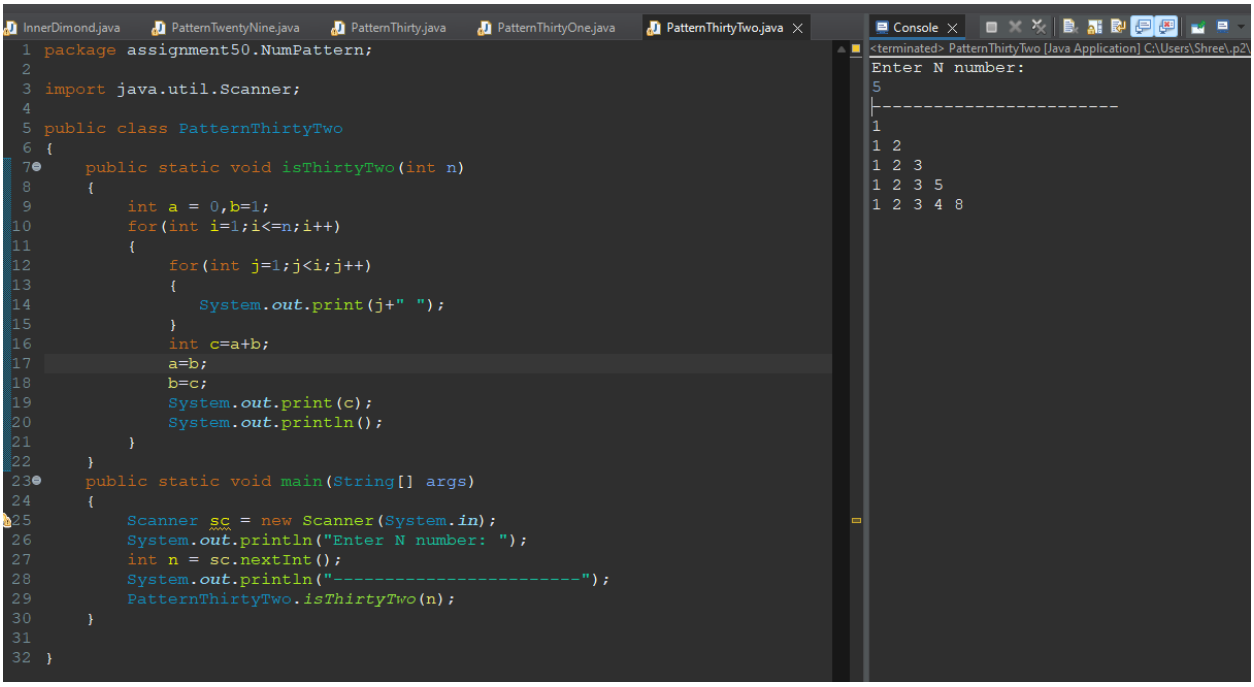
```
Enter N number:
5
------------------------
1 10 11 20 21
2 9 12 19 22
3 8 13 18 23
4 7 14 17 24
5 6 15 16 25
```



```
                    System.out.print(num+++" ");
                }
                else if(j==2)
                {
                    System.out.print(n1--+" ");
                }
                else if(j==3)
                {
                    System.out.print(n4+++" ");
                }
                else if(j==4)
                {
                    System.out.print(n2--+" ");
                }
                else if(j==5)
                {
                    System.out.print(n3+++" ");
                }
                else
                {
                    System.out.print(" ");
                }
            }

            System.out.println();
        }
    }
    public static void main(String[] args)
    {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter N number: ");
        int n = sc.nextInt();
        System.out.println("------------------------");
        PatternThirty.isThirty(n);
    }

}
```

```
Enter N number:
5
------------------------
1 10 11 20 21
2 9 12 19 22
3 8 13 18 23
4 7 14 17 24
5 6 15 16 25
```

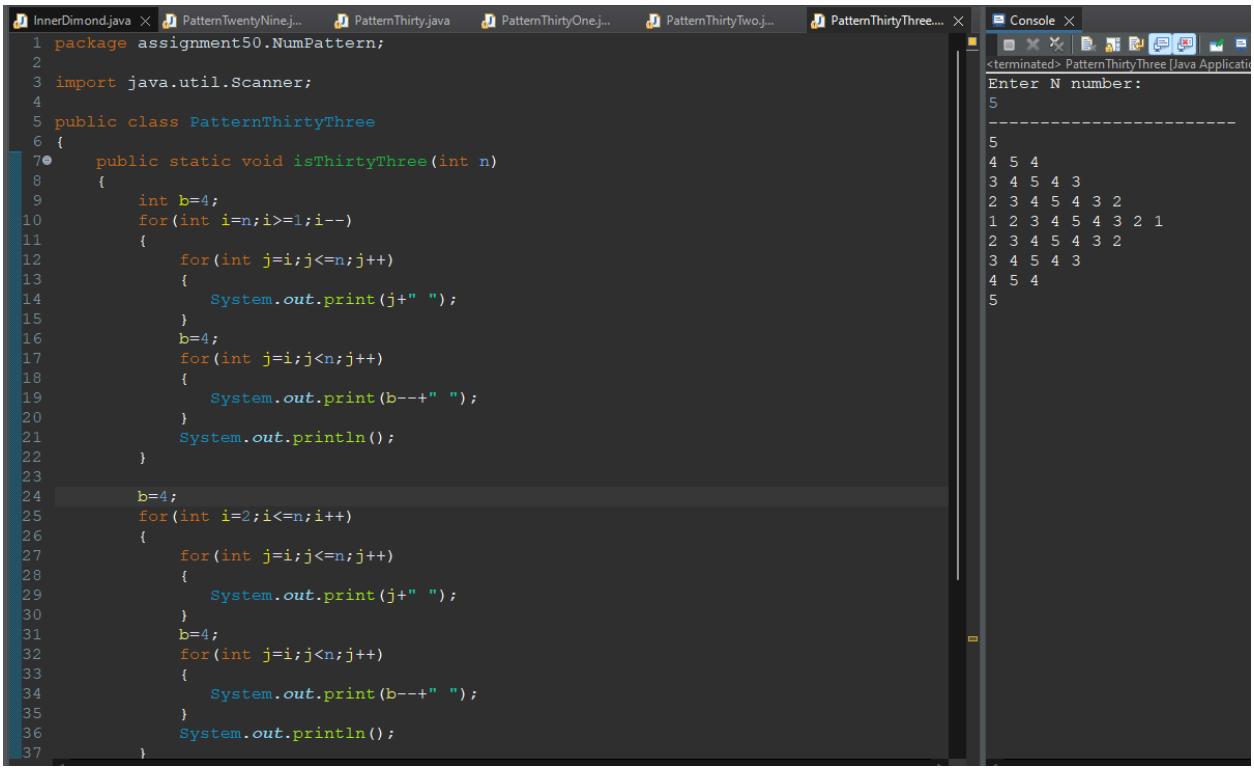
Q.14



```java
package assignment50.NumPattern;

import java.util.Scanner;

public class PatternThirtyTwo
{
    public static void isThirtyTwo(int n)
    {
        int a = 0,b=1;
        for(int i=1;i<=n;i++)
        {
            for(int j=1;j<i;j++)
            {
               System.out.print(j+" ");
            }
            int c=a+b;
            a=b;
            b=c;
            System.out.print(c);
            System.out.println();
        }
    }
    public static void main(String[] args)
    {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter N number: ");
        int n = sc.nextInt();
        System.out.println("------------------------");
        PatternThirtyTwo.isThirtyTwo(n);
    }

}
```

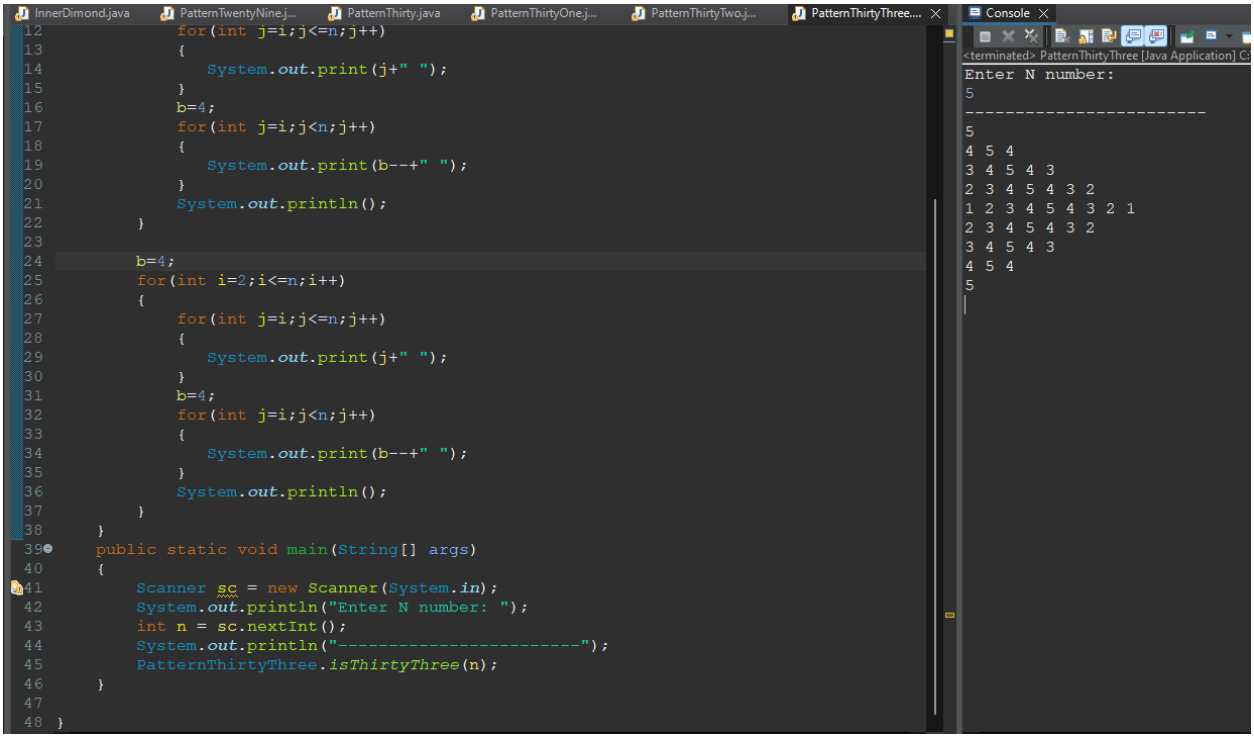
```
Enter N number:
5
------------------------
1
1 2
1 2 3
1 2 3 5
1 2 3 4 8
```

Q.15



```java
package assignment50.NumPattern;

import java.util.Scanner;

public class PatternThirtyThree
{
    public static void isThirtyThree(int n)
    {
        int b=4;
        for(int i=n;i>=1;i--)
        {
            for(int j=i;j<=n;j++)
            {
               System.out.print(j+" ");
            }
            b=4;
            for(int j=i;j<n;j++)
            {
               System.out.print(b--+" ");
            }
            System.out.println();
        }

        b=4;
        for(int i=2;i<=n;i++)
        {
            for(int j=i;j<=n;j++)
            {
               System.out.print(j+" ");
            }
            b=4;
            for(int j=i;j<n;j++)
            {
               System.out.print(b--+" ");
            }
            System.out.println();
        }
```

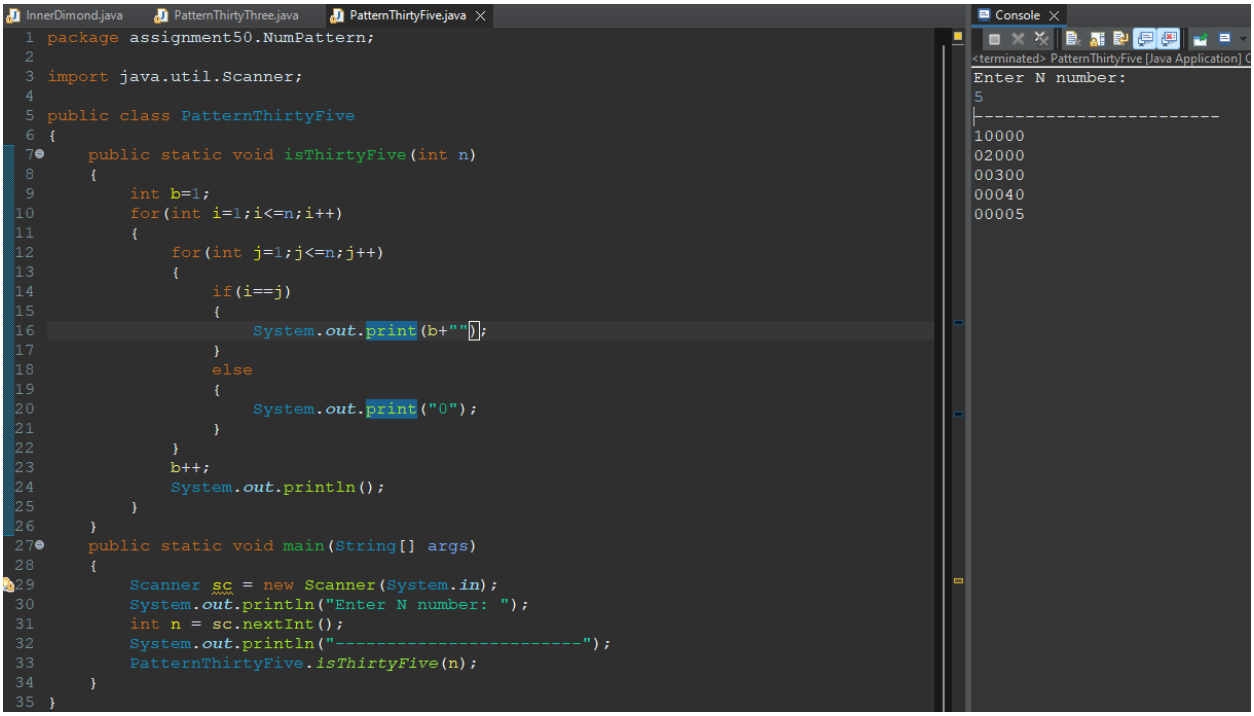
```
Enter N number:
5
------------------------
5
4 5 4
3 4 5 4 3
2 3 4 5 4 3 2
1 2 3 4 5 4 3 2 1
2 3 4 5 4 3 2
3 4 5 4 3
4 5 4
5
```



```
InnerDimond.java | PatternTwentyNine.j... | PatternThirty.java | PatternThirtyOne.j... | PatternThirtyTwo.j... | PatternThirtyThree....

            for(int j=i;j<=n;j++)
            {
               System.out.print(j+" ");
            }
            b=4;
            for(int j=i;j<n;j++)
            {
               System.out.print(b--+" ");
            }
            System.out.println();
        }

        b=4;
        for(int i=2;i<=n;i++)
        {
            for(int j=i;j<=n;j++)
            {
               System.out.print(j+" ");
            }
            b=4;
            for(int j=i;j<n;j++)
            {
               System.out.print(b--+" ");
            }
            System.out.println();
        }
    }
    public static void main(String[] args)
    {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter N number: ");
        int n = sc.nextInt();
        System.out.println("------------------------");
        PatternThirtyThree.isThirtyThree(n);
    }

}
```

```
Console
<terminated> PatternThirtyThree [Java Application] C:
Enter N number:
5
------------------------
5
4 5 4
3 4 5 4 3
2 3 4 5 4 3 2
1 2 3 4 5 4 3 2 1
2 3 4 5 4 3 2
3 4 5 4 3
4 5 4
5
```

Q.16



```
InnerDimond.java | PatternThirtyThree.java | PatternThirtyFive.java

package assignment50.NumPattern;

import java.util.Scanner;

public class PatternThirtyFive
{
    public static void isThirtyFive(int n)
    {
        int b=1;
        for(int i=1;i<=n;i++)
        {
            for(int j=1;j<=n;j++)
            {
                if(i==j)
                {
                    System.out.print(b+"");
                }
                else
                {
                    System.out.print("0");
                }
            }
            b++;
            System.out.println();
        }
    }
    public static void main(String[] args)
    {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter N number: ");
        int n = sc.nextInt();
        System.out.println("------------------------");
        PatternThirtyFive.isThirtyFive(n);
    }
}
```

```
Console
<terminated> PatternThirtyFive [Java Application] C
Enter N number:
5
------------------------
10000
02000
00300
00040
00005
```

Q.17

InnerDimond.java | PatternThirtySix.java

```
1  package assignment50.NumPattern;
2
3  import java.util.Scanner;
4
5  public class PatternThirtySix
6  {
7      public static void isThirtySix(int n)
8      {
9          int b=1;
10         for(int i=1;i<=n;i++)
11         {
12             for(int j=n;j>i;j--)
13             {
14                 System.out.print(b);
15             }
16             for(int j=1;j<=i;j++)
17             {
18                 System.out.print(i);
19             }
20             System.out.println();
21         }
22     }
23     public static void main(String[] args)
24     {
25         Scanner sc = new Scanner(System.in);
26         System.out.println("Enter N number: ");
27         int n = sc.nextInt();
28         System.out.println("------------------------");
29         PatternThirtySix.isThirtySix(n);
30     }
31 }
32
33
```

Console — <terminated> PatternThirtySix [Java Application] C:\Users\Shree\.p

```
Enter N number:
5
------------------------
11111
11122
11333
14444
55555
```

Q.18

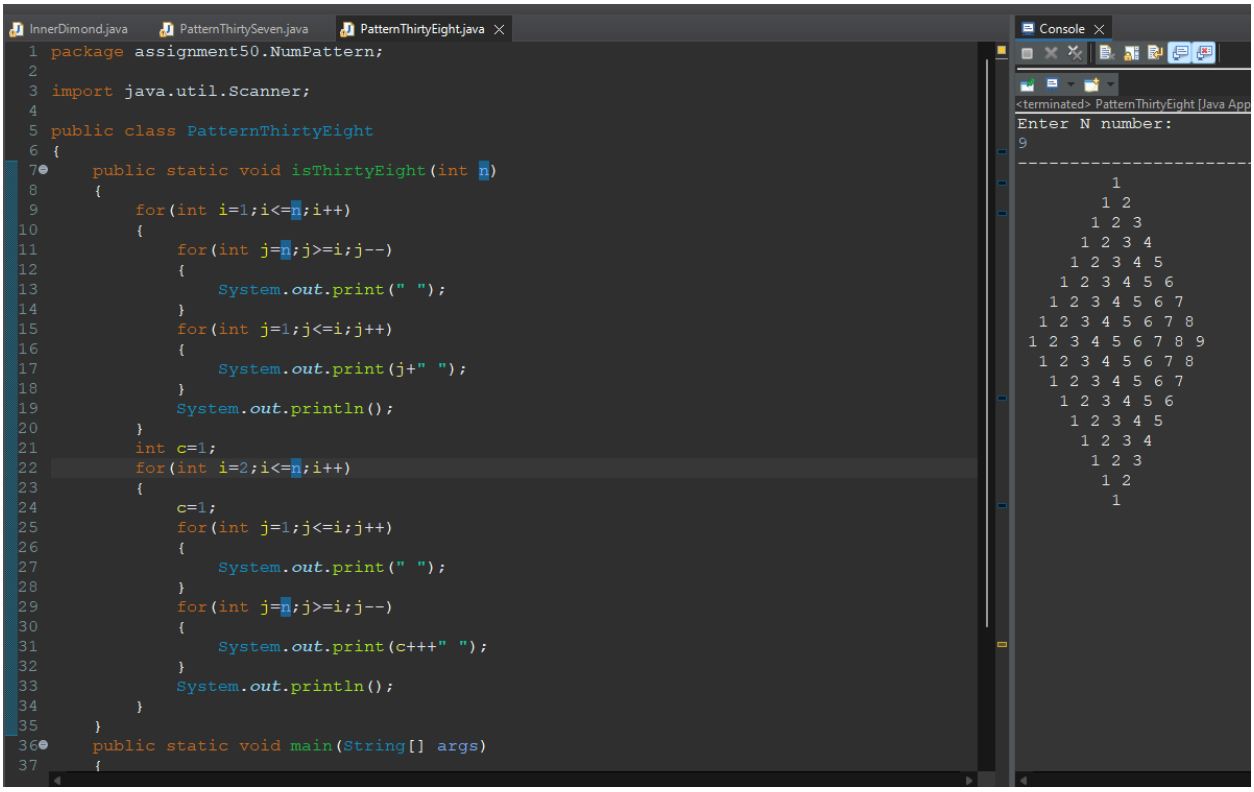
InnerDimond.java | PatternThirtySix.java | PatternThirtySeven.java

```
1  package assignment50.NumPattern;
2
3  import java.util.Scanner;
4
5  public class PatternThirtySeven
6  {
7      public static void isThirtySeven(int n)
8      {
9          int as=65,ascii=65;
10         for(int i=1;i<=n;i++)
11         {
12             for(int j=n;j>i;j--)
13             {
14                 System.out.print((char)as);
15             }
16             for(int j=1;j<=i;j++)
17             {
18                 System.out.print((char)ascii);
19             }
20             ascii++;
21             System.out.println();
22         }
23     }
24     public static void main(String[] args)
25     {
26         Scanner sc = new Scanner(System.in);
27         System.out.println("Enter N number: ");
28         int n = sc.nextInt();
29         System.out.println("------------------------");
30         PatternThirtySeven.isThirtySeven(n);
31     }
32 }
33
```

Console — <terminated> PatternThirtySeven [Java Application] C:\Users\Shree\.p

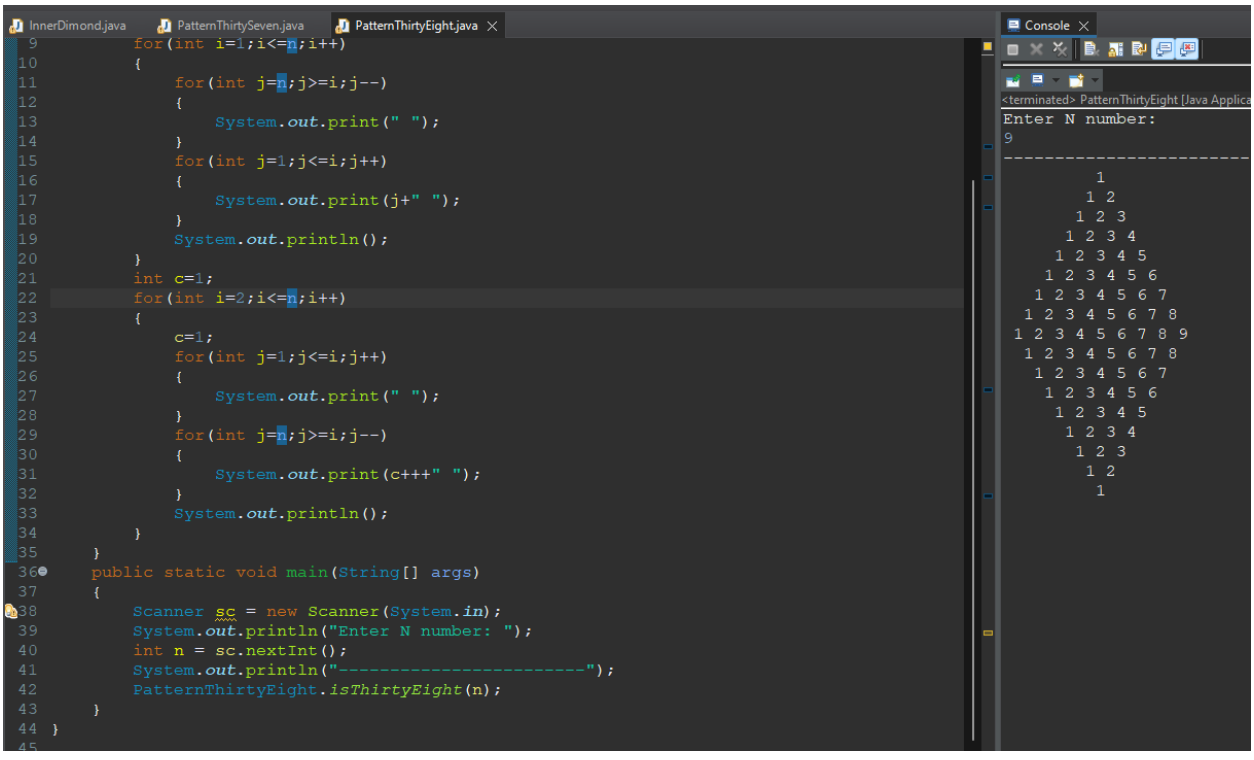
```
Enter N number:
5
------------------------
AAAAA
AAABB
AACCC
ADDDD
EEEEE
```

Q.19



```
InnerDimond.java  PatternThirtySeven.java  PatternThirtyEight.java

package assignment50.NumPattern;

import java.util.Scanner;

public class PatternThirtyEight
{
    public static void isThirtyEight(int n)
    {
        for(int i=1;i<=n;i++)
        {
            for(int j=n;j>=i;j--)
            {
                System.out.print(" ");
            }
            for(int j=1;j<=i;j++)
            {
                System.out.print(j+" ");
            }
            System.out.println();
        }
        int c=1;
        for(int i=2;i<=n;i++)
        {
            c=1;
            for(int j=1;j<=i;j++)
            {
                System.out.print(" ");
            }
            for(int j=n;j>=i;j--)
            {
                System.out.print(c+++" ");
            }
            System.out.println();
        }
    }
    public static void main(String[] args)
    {
```

```
Console
<terminated> PatternThirtyEight [Java App
Enter N number:
9
------------------------
         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
 1 2 3 4 5 6 7 8
  1 2 3 4 5 6 7
   1 2 3 4 5 6
    1 2 3 4 5
     1 2 3 4
      1 2 3
       1 2
        1
```



```
InnerDimond.java  PatternThirtySeven.java  PatternThirtyEight.java

        for(int i=1;i<=n;i++)
        {
            for(int j=n;j>=i;j--)
            {
                System.out.print(" ");
            }
            for(int j=1;j<=i;j++)
            {
                System.out.print(j+" ");
            }
            System.out.println();
        }
        int c=1;
        for(int i=2;i<=n;i++)
        {
            c=1;
            for(int j=1;j<=i;j++)
            {
                System.out.print(" ");
            }
            for(int j=n;j>=i;j--)
            {
                System.out.print(c+++" ");
            }
            System.out.println();
        }
    }
    public static void main(String[] args)
    {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter N number: ");
        int n = sc.nextInt();
        System.out.println("------------------------");
        PatternThirtyEight.isThirtyEight(n);
    }
}
```

```
Console
<terminated> PatternThirtyEight [Java Applica
Enter N number:
9
------------------------
         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
 1 2 3 4 5 6 7 8
  1 2 3 4 5 6 7
   1 2 3 4 5 6
    1 2 3 4 5
     1 2 3 4
      1 2 3
       1 2
        1
```

Q.20

InnerDimond.java | PatternThirtySeven.java | PatternThirtyEight.java | PatternThirtyNine.java

```
1  package assignment50.NumPattern;
2
3  import java.util.Scanner;
4
5  public class PatternThirtyNine
6  {
7      public static void isThirtyNine(int n)
8      {
9          int ascii=65;
10         for(int i=1;i<=n;i++)
11         {
12             ascii=65;
13             for(int j=n;j>=i;j--)
14             {
15                 System.out.print(" ");
16             }
17             for(int j=1;j<=i;j++)
18             {
19                 System.out.print((char)ascii+++" ");
20             }
21             System.out.println();
22         }
23         int c=65;
24         for(int i=2;i<=n;i++)
25         {
26             c=65;
27             for(int j=1;j<=i;j++)
28             {
29                 System.out.print(" ");
30             }
31             for(int j=n;j>=i;j--)
32             {
33                 System.out.print((char)c+++" ");
34             }
35             System.out.println();
36         }
37     }
```

Console — <terminated> PatternThirtyNine [Java Application] C:\Users\Shree\...

```
Enter N number:
5
------------------------
      A
     A B
    A B C
   A B C D
  A B C D E
   A B C D
    A B C
     A B
      A
```

InnerDimond.java | PatternThirtySeven.java | PatternThirtyEight.java | PatternThirtyNine.java

```
11         {
12             ascii=65;
13             for(int j=n;j>=i;j--)
14             {
15                 System.out.print(" ");
16             }
17             for(int j=1;j<=i;j++)
18             {
19                 System.out.print((char)ascii+++" ");
20             }
21             System.out.println();
22         }
23         int c=65;
24         for(int i=2;i<=n;i++)
25         {
26             c=65;
27             for(int j=1;j<=i;j++)
28             {
29                 System.out.print(" ");
30             }
31             for(int j=n;j>=i;j--)
32             {
33                 System.out.print((char)c+++" ");
34             }
35             System.out.println();
36         }
37     }
38     public static void main(String[] args)
39     {
40         Scanner sc = new Scanner(System.in);
41         System.out.println("Enter N number: ");
42         int n = sc.nextInt();
43         System.out.println("------------------------");
44         PatternThirtyNine.isThirtyNine(n);
45     }
46 }
```

Console — <terminated> PatternThirtyNine [Java Application] C:\Users\Shree\.p2\

```
Enter N number:
5
------------------------
      A
     A B
    A B C
   A B C D
  A B C D E
   A B C D
    A B C
     A B
      A
```

Q.21

InnerDimond.java | PatternThirtySeven.java | PatternFourty.java

```
1  package assignment50.NumPattern;
2
3  import java.util.Scanner;
4
5  public class PatternFourty
6  {
7      public static void isThirtyFourty(int n)
8      {
9          for(int i=1;i<=n;i++)
10         {
11             for(int j=n;j>=i;j--)
12             {
13                 System.out.print(" ");
14             }
15             for(int j=1;j<=i;j++)
16             {
17                 System.out.print("* ");
18             }
19             System.out.println();
20         }
21         for(int i=2;i<=n;i++)
22         {
23             for(int j=1;j<=i;j++)
24             {
25                 System.out.print(" ");
26             }
27             for(int j=n;j>=i;j--)
28             {
29                 System.out.print("* ");
30             }
31             System.out.println();
32         }
33     }
34     public static void main(String[] args)
35     {
36         Scanner sc = new Scanner(System.in);
37         System.out.println("Enter N number: ");
```

Console

```
<terminated> PatternFourty [Java Application] C:\Users\Shree\.p2\pool\p
Enter N number:
5
------------------------
      *
     * *
    * * *
   * * * *
  * * * * *
   * * * *
    * * *
     * *
      *
```

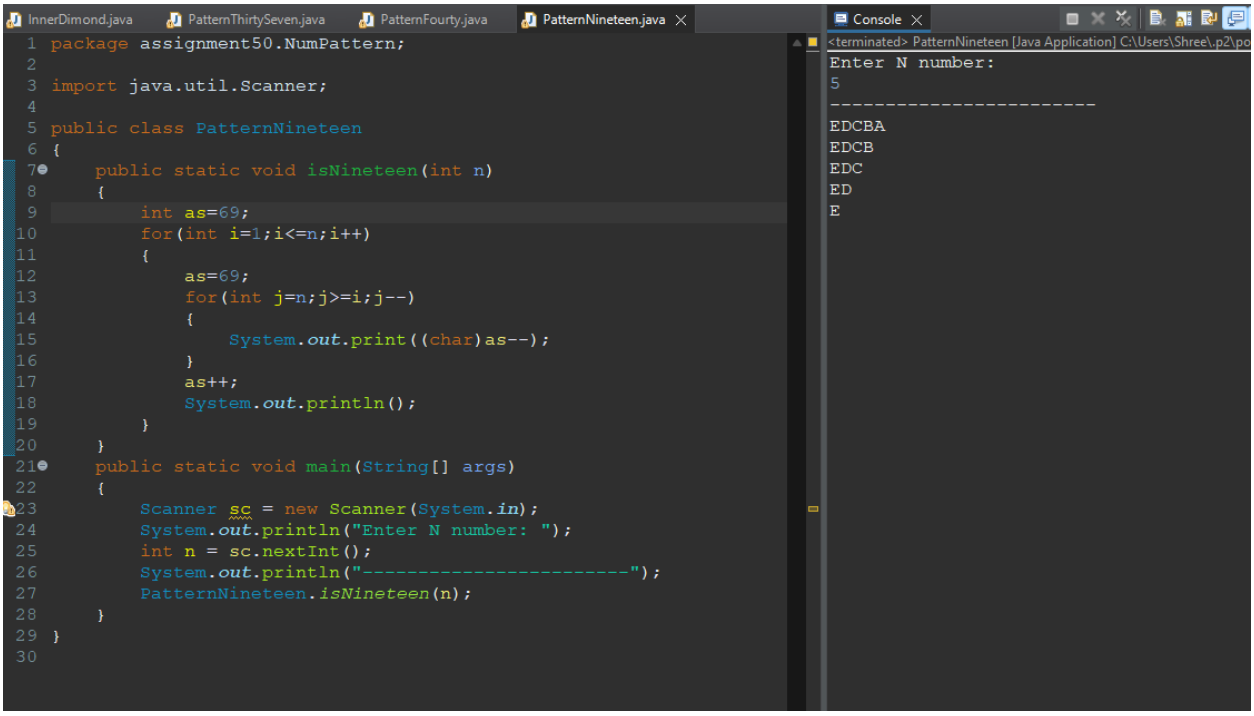
InnerDimond.java | PatternThirtySeven.java | PatternFourty.java

```
7      public static void isThirtyFourty(int n)
8      {
9          for(int i=1;i<=n;i++)
10         {
11             for(int j=n;j>=i;j--)
12             {
13                 System.out.print(" ");
14             }
15             for(int j=1;j<=i;j++)
16             {
17                 System.out.print("* ");
18             }
19             System.out.println();
20         }
21         for(int i=2;i<=n;i++)
22         {
23             for(int j=1;j<=i;j++)
24             {
25                 System.out.print(" ");
26             }
27             for(int j=n;j>=i;j--)
28             {
29                 System.out.print("* ");
30             }
31             System.out.println();
32         }
33     }
34     public static void main(String[] args)
35     {
36         Scanner sc = new Scanner(System.in);
37         System.out.println("Enter N number: ");
38         int n = sc.nextInt();
39         System.out.println("------------------------");
40         PatternFourty.isThirtyFourty(n);
41     }
42 }
```

Console

```
<terminated> PatternFourty [Java Application] C:\Users\Shree\.p2\pool\plugins\
Enter N number:
5
------------------------
      *
     * *
    * * *
   * * * *
  * * * * *
   * * * *
    * * *
     * *
      *
```

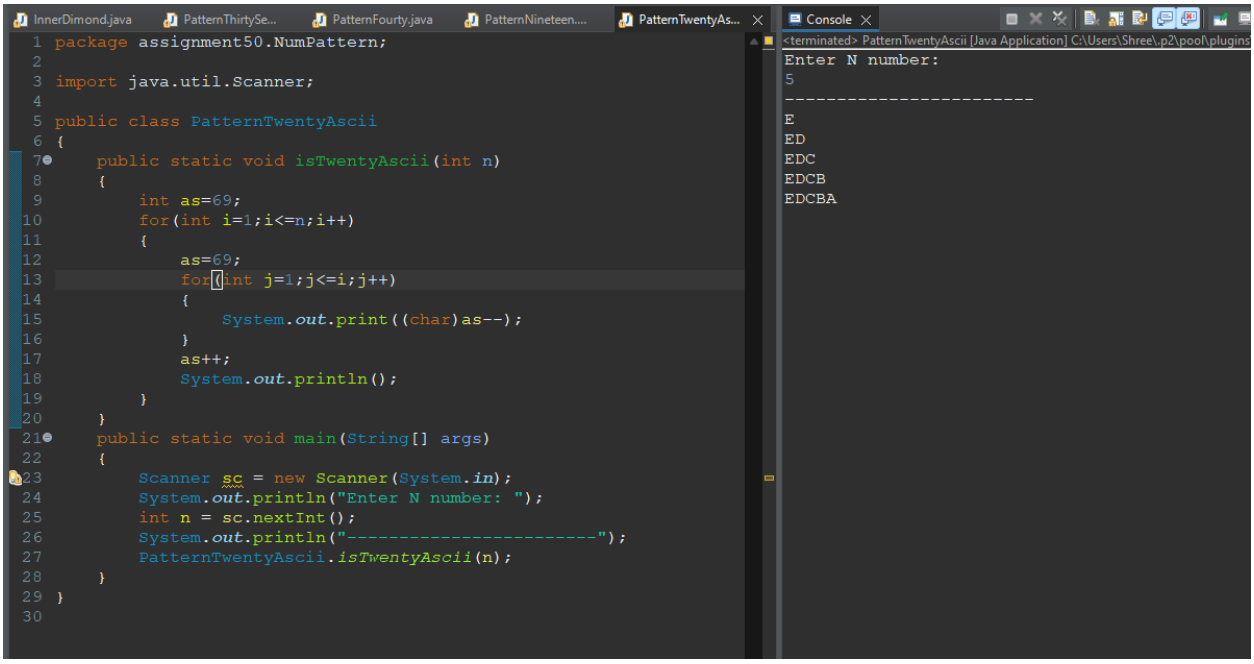
Q.22



```
package assignment50.NumPattern;

import java.util.Scanner;

public class PatternNineteen
{
    public static void isNineteen(int n)
    {
        int as=69;
        for(int i=1;i<=n;i++)
        {
            as=69;
            for(int j=n;j>=i;j--)
            {
                System.out.print((char)as--);
            }
            as++;
            System.out.println();
        }
    }
    public static void main(String[] args)
    {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter N number: ");
        int n = sc.nextInt();
        System.out.println("------------------------");
        PatternNineteen.isNineteen(n);
    }
}
```

```
Enter N number:
5
------------------------
EDCBA
EDCB
EDC
ED
E
```

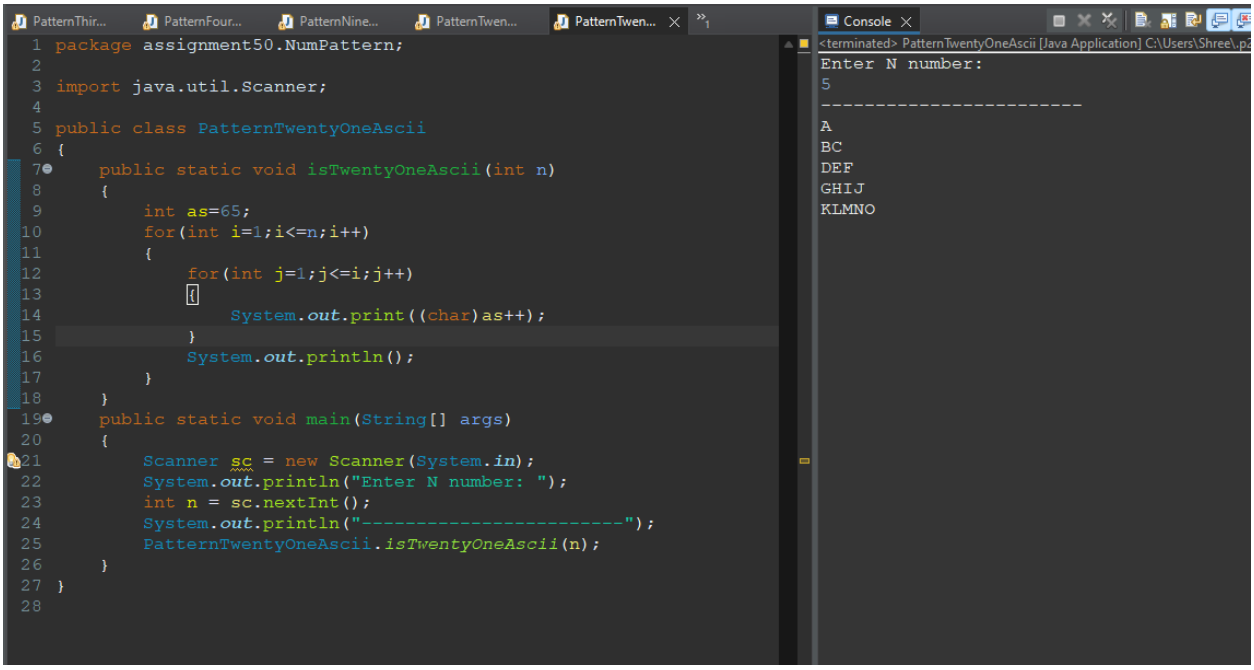
Q.23



```
package assignment50.NumPattern;

import java.util.Scanner;

public class PatternTwentyAscii
{
    public static void isTwentyAscii(int n)
    {
        int as=69;
        for(int i=1;i<=n;i++)
        {
            as=69;
            for(int j=1;j<=i;j++)
            {
                System.out.print((char)as--);
            }
            as++;
            System.out.println();
        }
    }
    public static void main(String[] args)
    {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter N number: ");
        int n = sc.nextInt();
        System.out.println("------------------------");
        PatternTwentyAscii.isTwentyAscii(n);
    }
}
```

```
Enter N number:
5
------------------------
E
ED
EDC
EDCB
EDCBA
```

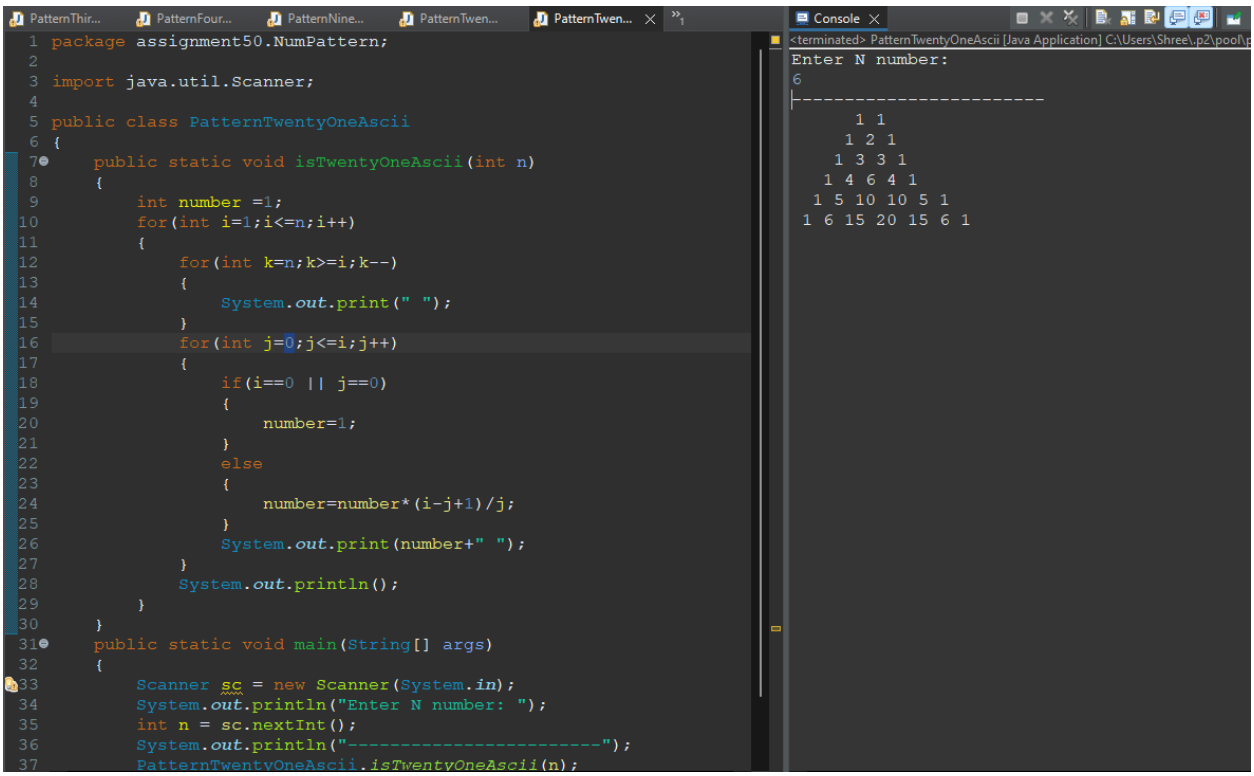
Q.24



```
package assignment50.NumPattern;

import java.util.Scanner;

public class PatternTwentyOneAscii
{
    public static void isTwentyOneAscii(int n)
    {
        int as=65;
        for(int i=1;i<=n;i++)
        {
            for(int j=1;j<=i;j++)
            {
                System.out.print((char)as++);
            }
            System.out.println();
        }
    }
    public static void main(String[] args)
    {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter N number: ");
        int n = sc.nextInt();
        System.out.println("------------------------");
        PatternTwentyOneAscii.isTwentyOneAscii(n);
    }
}
```

```
<terminated> PatternTwentyOneAscii [Java Application] C:\Users\Shree\.p2
Enter N number:
5
------------------------
A
BC
DEF
GHIJ
KLMNO
```

Q.25



```
package assignment50.NumPattern;

import java.util.Scanner;

public class PatternTwentyOneAscii
{
    public static void isTwentyOneAscii(int n)
    {
        int number =1;
        for(int i=1;i<=n;i++)
        {
            for(int k=n;k>=i;k--)
            {
                System.out.print(" ");
            }
            for(int j=0;j<=i;j++)
            {
                if(i==0 || j==0)
                {
                    number=1;
                }
                else
                {
                    number=number*(i-j+1)/j;
                }
                System.out.print(number+" ");
            }
            System.out.println();
        }
    }
    public static void main(String[] args)
    {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter N number: ");
        int n = sc.nextInt();
        System.out.println("------------------------");
        PatternTwentyOneAscii.isTwentyOneAscii(n);
```

```
<terminated> PatternTwentyOneAscii [Java Application] C:\Users\Shree\.p2\pool\p
Enter N number:
6
------------------------
      1 1
     1 2 1
    1 3 3 1
   1 4 6 4 1
  1 5 10 10 5 1
 1 6 15 20 15 6 1
```

```java
public class PatternTwentyOneAscii
{
    public static void isTwentyOneAscii(int n)
    {
        int number =1;
        for(int i=1;i<=n;i++)
        {
            for(int k=n;k>=i;k--)
            {
                System.out.print(" ");
            }
            for(int j=0;j<=i;j++)
            {
                if(i==0 || j==0)
                {
                    number=1;
                }
                else
                {
                    number=number*(i-j+1)/j;
                }
                System.out.print(number+" ");
            }
            System.out.println();
        }
    }
    public static void main(String[] args)
    {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter N number: ");
        int n = sc.nextInt();
        System.out.println("-------------------------");
        PatternTwentyOneAscii.isTwentyOneAscii(n);
    }
}
```

```
Enter N number:
6
-------------------------
      1 1
     1 2 1
    1 3 3 1
   1 4 6 4 1
  1 5 10 10 5 1
 1 6 15 20 15 6 1
```

Q.26

```java
package assignment50.NumPattern;

import java.util.Scanner;

public class PatternTwentyThreeAscii
{
    public static void isTwentyThreeAscii(int n)
    {
        int number =0;
        for(int i=1;i<=n;i++)
        {
            for(int k=n;k>=i;k--)
            {
                System.out.print(" ");
            }
            for(int j=0;j<=i;j++)
            {
                if(i==0 || j==0)
                {
                    number=1;
                }
                else
                {
                    number=number*(i-j+1)/j;
                }
                  char letter = (char)(number + 64);
                    System.out.print(letter + " ");
            }
            System.out.println();
        }
    }
    public static void main(String[] args)
    {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter N number: ");
        int n = sc.nextInt();
        System.out.println("-------------------------");
```

```
Enter N number:
5
-------------------------
     A A
    A B A
   A C C A
  A D F D A
 A E J J E A
```

InnerDimond.java | PatternThirtySeven.java | PatternTwentyOneAscii.java | PatternTwentyThreeAscii.java

```java
public class PatternTwentyThreeAscii
{
    public static void isTwentyThreeAscii(int n)
    {
        int number =0;
        for(int i=1;i<=n;i++)
        {
            for(int k=n;k>=i;k--)
            {
                System.out.print(" ");
            }
            for(int j=0;j<=i;j++)
            {
                if(i==0 || j==0)
                {
                    number=1;
                }
                else
                {
                    number=number*(i-j+1)/j;
                }
                  char letter = (char)(number + 64);
                    System.out.print(letter + " ");
            }
            System.out.println();
        }
    }
    public static void main(String[] args)
    {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter N number: ");
        int n = sc.nextInt();
        System.out.println("-------------------------");
        PatternTwentyThreeAscii.isTwentyThreeAscii(n);
    }
}
```

Console

```
<terminated> PatternTwentyThreeAscii [Java Application] C:\Users\Shree\.p2\p
Enter N number:
5
-------------------------
      A A
    A B A
  A C C A
A D F D A
A E J J E A
```

Q.27

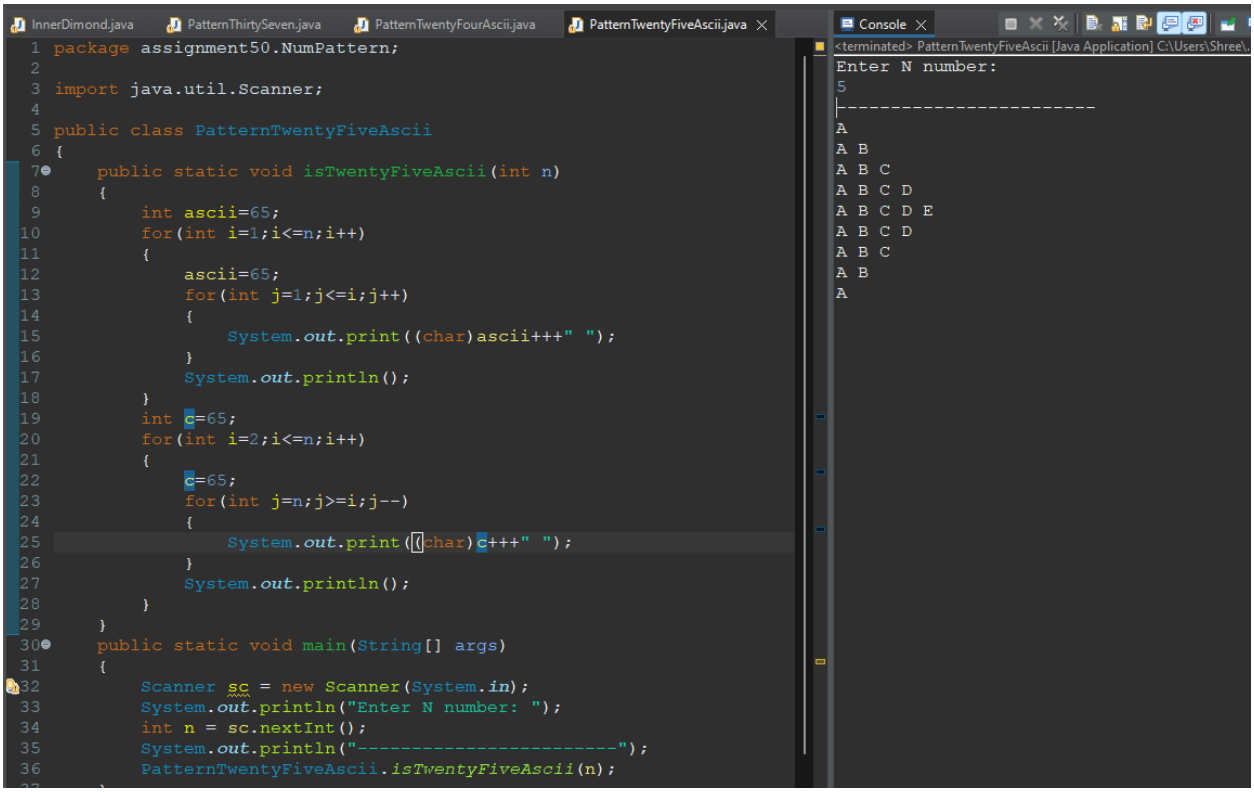
InnerDimond.java | PatternThirtySeven.java | PatternTwentyFourAscii.java

```java
package assignment50.NumPattern;

import java.util.Scanner;

public class PatternTwentyFourAscii
{
    public static void isTwentyFourAscii(int n)
    {
        for(int i=1;i<=n;i++)
        {
            for(int j=1;j<=i;j++)
            {
                System.out.print(j+" ");
            }
            System.out.println();
        }
        int c=1;
        for(int i=2;i<=n;i++)
        {
            c=1;
            for(int j=n;j>=i;j--)
            {
                System.out.print(c+++" ");
            }
            System.out.println();
        }
    }
    public static void main(String[] args)
    {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter N number: ");
        int n = sc.nextInt();
        System.out.println("-------------------------");
        PatternTwentyFourAscii.isTwentyFourAscii(n);
    }
}
```

Console

```
<terminated> PatternTwentyFourAscii [Java Application] C:\Use
Enter N number:
5
-------------------------
1
1 2
1 2 3
1 2 3 4
1 2 3 4 5
1 2 3 4
1 2 3
1 2
1
```

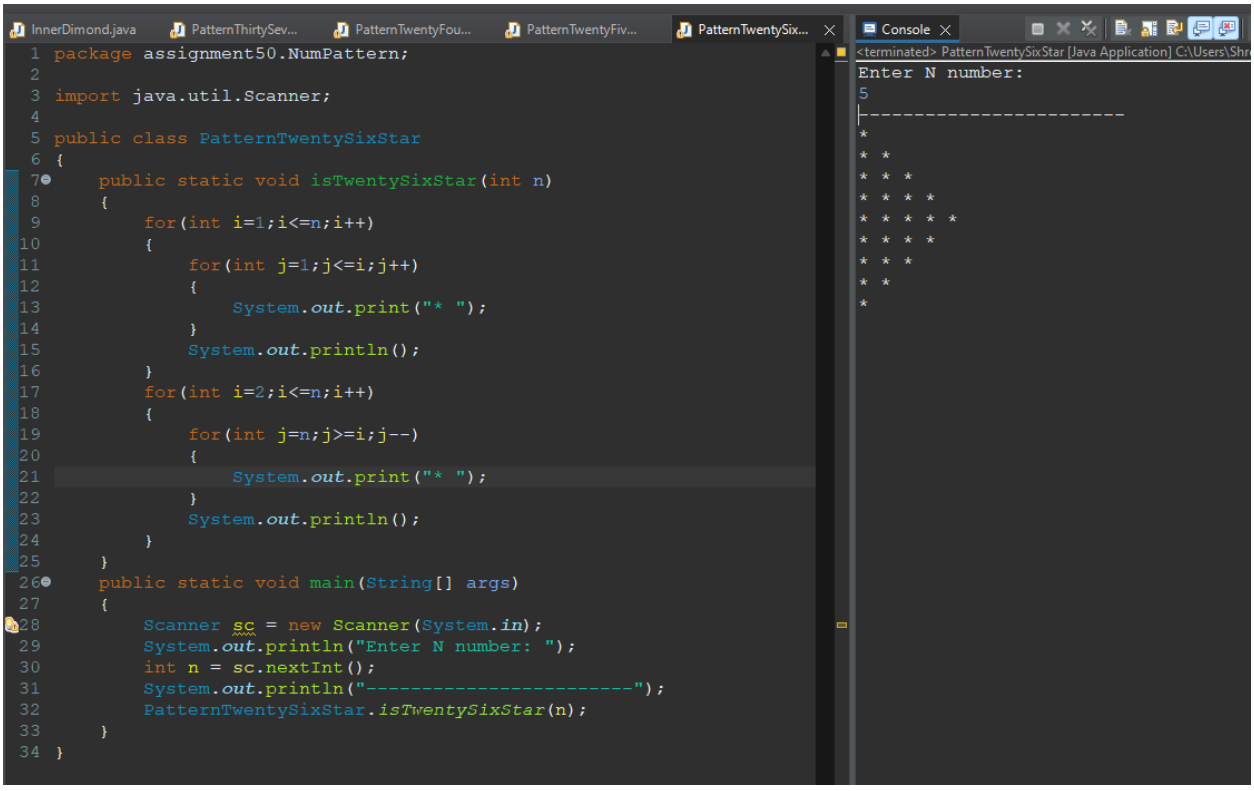
Q.28



```
InnerDimond.java  PatternThirtySeven.java  PatternTwentyFourAscii.java  PatternTwentyFiveAscii.java

1  package assignment50.NumPattern;
2
3  import java.util.Scanner;
4
5  public class PatternTwentyFiveAscii
6  {
7      public static void isTwentyFiveAscii(int n)
8      {
9          int ascii=65;
10         for(int i=1;i<=n;i++)
11         {
12             ascii=65;
13             for(int j=1;j<=i;j++)
14             {
15                 System.out.print((char)ascii+++" ");
16             }
17             System.out.println();
18         }
19         int c=65;
20         for(int i=2;i<=n;i++)
21         {
22             c=65;
23             for(int j=n;j>=i;j--)
24             {
25                 System.out.print((char)c+++" ");
26             }
27             System.out.println();
28         }
29     }
30     public static void main(String[] args)
31     {
32         Scanner sc = new Scanner(System.in);
33         System.out.println("Enter N number: ");
34         int n = sc.nextInt();
35         System.out.println("------------------------");
36         PatternTwentyFiveAscii.isTwentyFiveAscii(n);
```

```
Console
<terminated> PatternTwentyFiveAscii [Java Application] C:\Users\Shree\
Enter N number:
5
------------------------
A
A B
A B C
A B C D
A B C D E
A B C D
A B C
A B
A
```

Q.29



```
InnerDimond.java  PatternThirtySev...  PatternTwentyFou...  PatternTwentyFiv...  PatternTwentySix...

1  package assignment50.NumPattern;
2
3  import java.util.Scanner;
4
5  public class PatternTwentySixStar
6  {
7      public static void isTwentySixStar(int n)
8      {
9          for(int i=1;i<=n;i++)
10         {
11             for(int j=1;j<=i;j++)
12             {
13                 System.out.print("* ");
14             }
15             System.out.println();
16         }
17         for(int i=2;i<=n;i++)
18         {
19             for(int j=n;j>=i;j--)
20             {
21                 System.out.print("* ");
22             }
23             System.out.println();
24         }
25     }
26     public static void main(String[] args)
27     {
28         Scanner sc = new Scanner(System.in);
29         System.out.println("Enter N number: ");
30         int n = sc.nextInt();
31         System.out.println("------------------------");
32         PatternTwentySixStar.isTwentySixStar(n);
33     }
34 }
```

```
Console
<terminated> PatternTwentySixStar [Java Application] C:\Users\Shr
Enter N number:
5
------------------------
*
* *
* * *
* * * *
* * * * *
* * * *
* * *
* *
*
```

Q.30

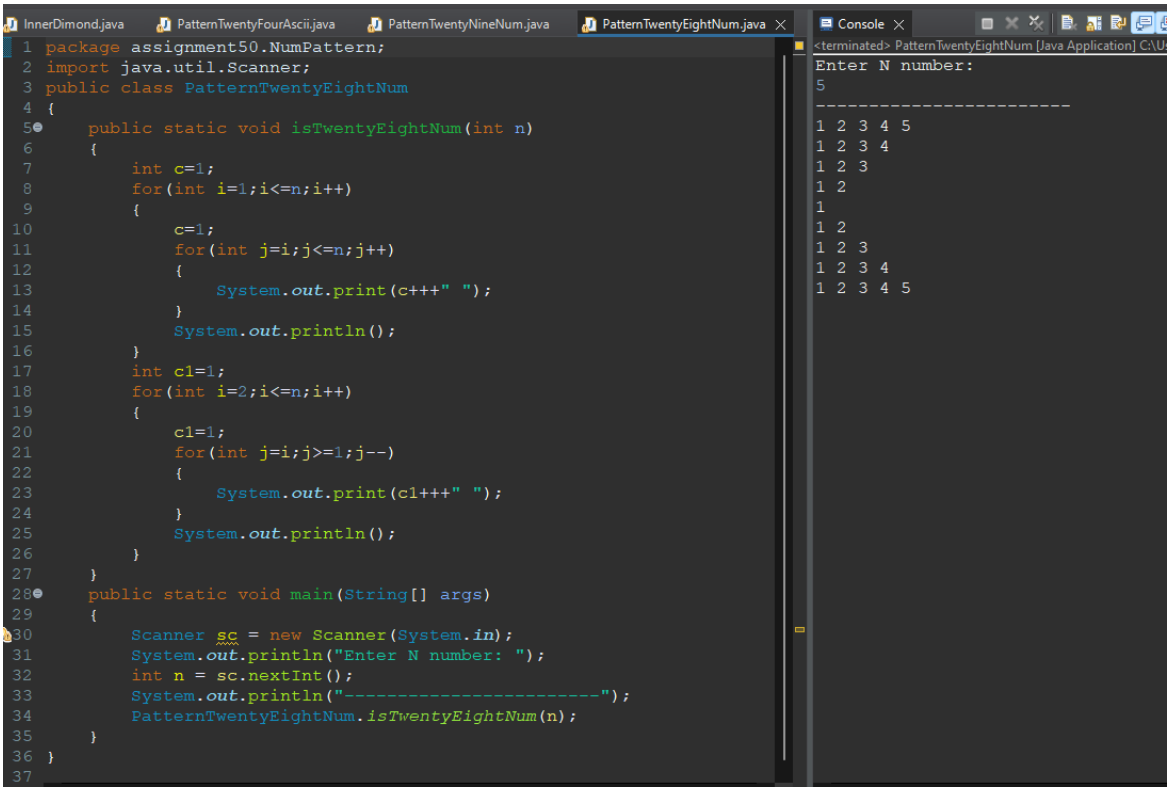
```java
package assignment50.NumPattern;

import java.util.Scanner;

public class PatternTwentySevenStar
{
    public static void isTwentySevenStar(int n)
    {
        for(int i=1;i<=n;i++)
        {
            for(int j=n;j>=i;j--)
            {
                System.out.print(" ");
            }
            for(int j=1;j<=i;j++)
            {
                System.out.print("*");
            }
            System.out.println();
        }
        for(int i=2;i<=n;i++)
        {
            for(int j=1;j<=i;j++)
            {
                System.out.print(" ");
            }
            for(int j=n;j>=i;j--)
            {
                System.out.print("*");
            }
            System.out.println();
        }
    }
    public static void main(String[] args)
    {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter N number: ");
```

```
<terminated> PatternTwentySevenStar [Java Application]
6Enter N number:

------------------------
       *
      **
     ***
    ****
   *****
  ******
   *****
    ****
     ***
      **
       *
```

```java
package assignment50.NumPattern;

import java.util.Scanner;

public class PatternTwentySevenStar
{
    public static void isTwentySevenStar(int n)
    {
        for(int i=1;i<=n;i++)
        {
            for(int j=n;j>=i;j--)
            {
                System.out.print(" ");
            }
            for(int j=1;j<=i;j++)
            {
                System.out.print("*");
            }
            System.out.println();
        }
        for(int i=2;i<=n;i++)
        {
            for(int j=1;j<=i;j++)
            {
                System.out.print(" ");
            }
            for(int j=n;j>=i;j--)
            {
                System.out.print("*");
            }
            System.out.println();
        }
    }
    public static void main(String[] args)
    {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter N number: ");
        int n = sc.nextInt();
        System.out.println("------------------------");
        PatternTwentySevenStar.isTwentySevenStar(n);
    }
}
```

```
<terminated> PatternTwentySevenStar [Java Application] C:\Users
6Enter N number:

------------------------
       *
      **
     ***
    ****
   *****
  ******
   *****
    ****
     ***
      **
       *
```

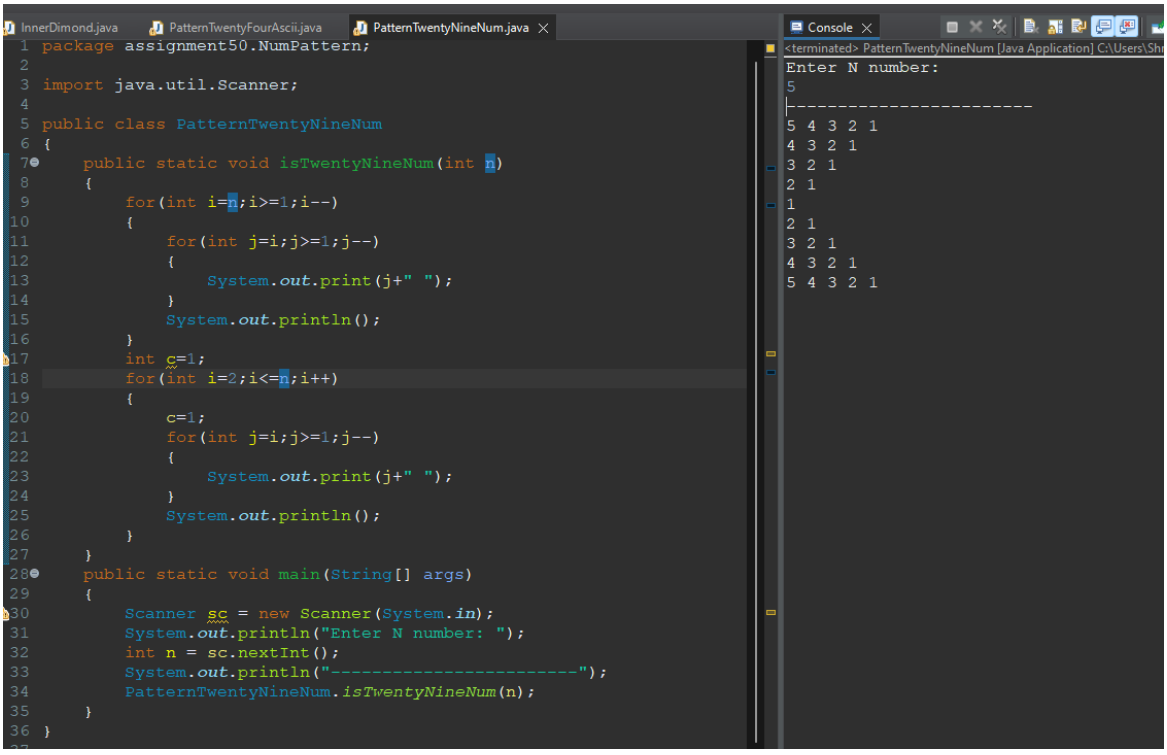
Q.31



```
package assignment50.NumPattern;
import java.util.Scanner;
public class PatternTwentyEightNum
{
    public static void isTwentyEightNum(int n)
    {
        int c=1;
        for(int i=1;i<=n;i++)
        {
            c=1;
            for(int j=i;j<=n;j++)
            {
                System.out.print(c+++" ");
            }
            System.out.println();
        }
        int c1=1;
        for(int i=2;i<=n;i++)
        {
            c1=1;
            for(int j=i;j>=1;j--)
            {
                System.out.print(c1+++" ");
            }
            System.out.println();
        }
    }
    public static void main(String[] args)
    {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter N number: ");
        int n = sc.nextInt();
        System.out.println("------------------------");
        PatternTwentyEightNum.isTwentyEightNum(n);
    }
}
```

```
Enter N number:
5
------------------------
1 2 3 4 5
1 2 3 4
1 2 3
1 2
1
1 2
1 2 3
1 2 3 4
1 2 3 4 5
```

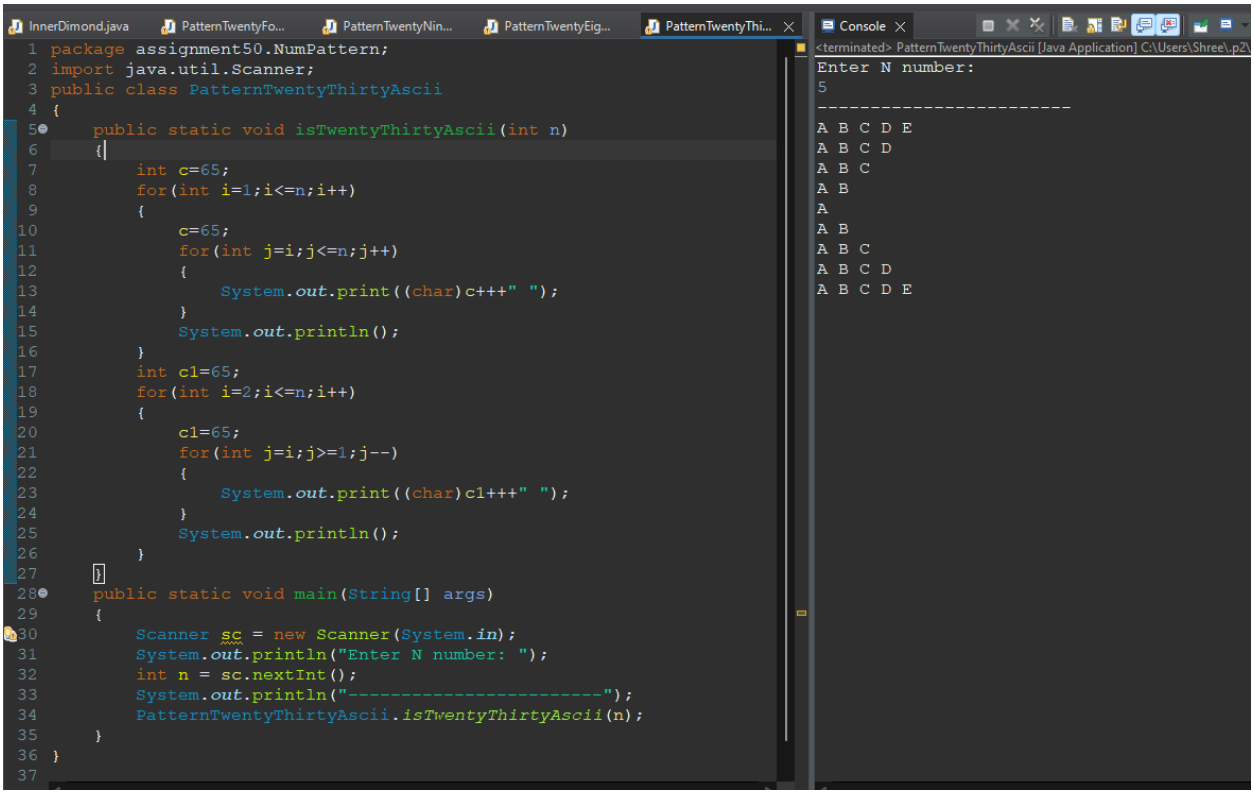
Q.32



```
package assignment50.NumPattern;

import java.util.Scanner;

public class PatternTwentyNineNum
{
    public static void isTwentyNineNum(int n)
    {
        for(int i=n;i>=1;i--)
        {
            for(int j=i;j>=1;j--)
            {
                System.out.print(j+" ");
            }
            System.out.println();
        }
        int c=1;
        for(int i=2;i<=n;i++)
        {
            c=1;
            for(int j=i;j>=1;j--)
            {
                System.out.print(j+" ");
            }
            System.out.println();
        }
    }
    public static void main(String[] args)
    {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter N number: ");
        int n = sc.nextInt();
        System.out.println("------------------------");
        PatternTwentyNineNum.isTwentyNineNum(n);
    }
}
```

```
Enter N number:
5
------------------------
5 4 3 2 1
4 3 2 1
3 2 1
2 1
1
2 1
3 2 1
4 3 2 1
5 4 3 2 1
```

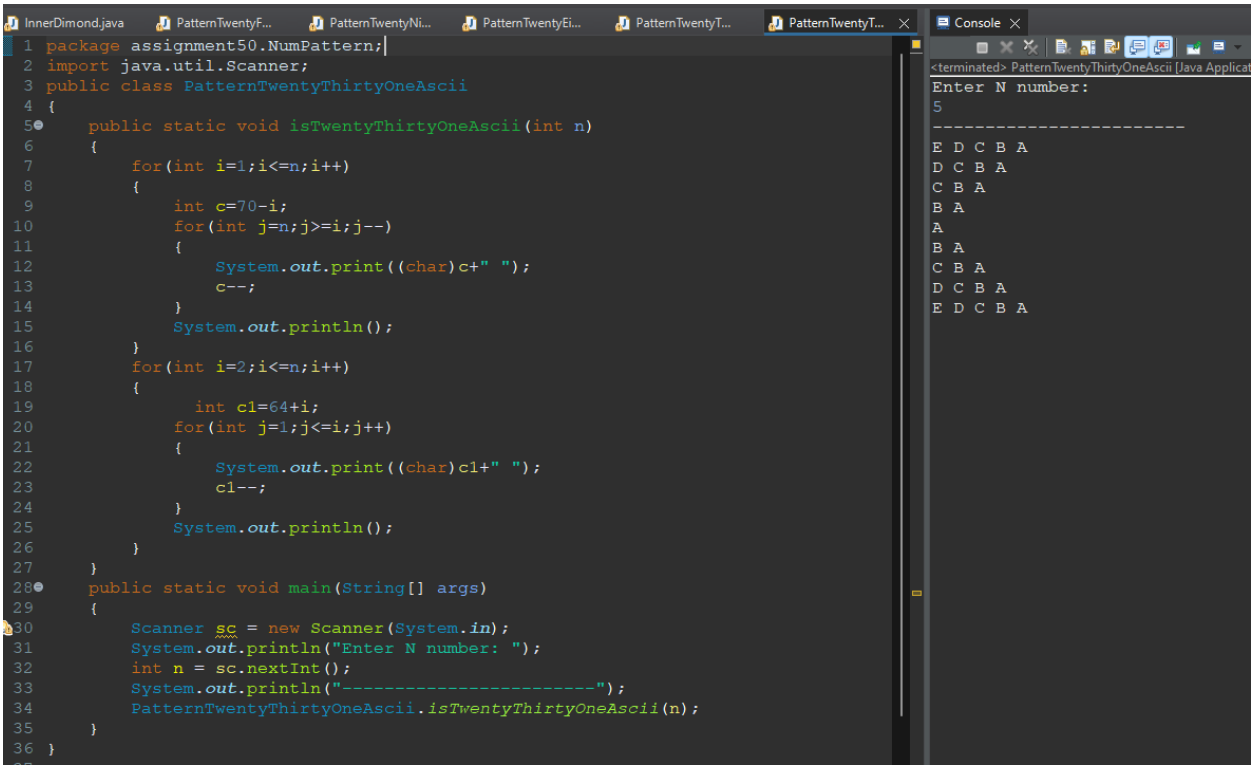
Q.33



```
package assignment50.NumPattern;
import java.util.Scanner;
public class PatternTwentyThirtyAscii
{
    public static void isTwentyThirtyAscii(int n)
    {
        int c=65;
        for(int i=1;i<=n;i++)
        {
            c=65;
            for(int j=i;j<=n;j++)
            {
                System.out.print((char)c+++" ");
            }
            System.out.println();
        }
        int c1=65;
        for(int i=2;i<=n;i++)
        {
            c1=65;
            for(int j=i;j>=1;j--)
            {
                System.out.print((char)c1+++" ");
            }
            System.out.println();
        }
    }
    public static void main(String[] args)
    {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter N number: ");
        int n = sc.nextInt();
        System.out.println("------------------------");
        PatternTwentyThirtyAscii.isTwentyThirtyAscii(n);
    }
}
```

```
Enter N number:
5
------------------------
A B C D E
A B C D
A B C
A B
A
A B
A B C
A B C D
A B C D E
```

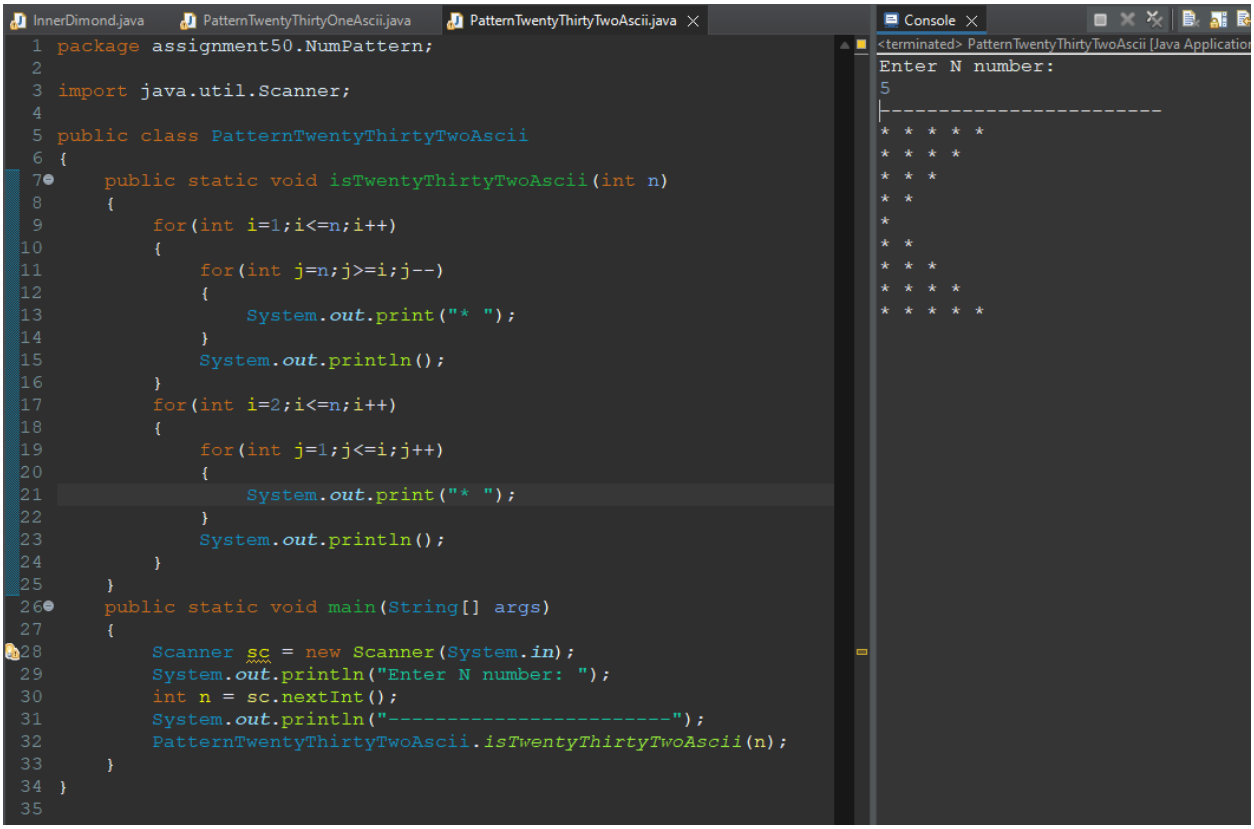
Q.34



```
package assignment50.NumPattern;
import java.util.Scanner;
public class PatternTwentyThirtyOneAscii
{
    public static void isTwentyThirtyOneAscii(int n)
    {
        for(int i=1;i<=n;i++)
        {
            int c=70-i;
            for(int j=n;j>=i;j--)
            {
                System.out.print((char)c+" ");
                c--;
            }
            System.out.println();
        }
        for(int i=2;i<=n;i++)
        {
              int c1=64+i;
            for(int j=1;j<=i;j++)
            {
                System.out.print((char)c1+" ");
                c1--;
            }
            System.out.println();
        }
    }
    public static void main(String[] args)
    {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter N number: ");
        int n = sc.nextInt();
        System.out.println("------------------------");
        PatternTwentyThirtyOneAscii.isTwentyThirtyOneAscii(n);
    }
}
```

```
Enter N number:
5
------------------------
E D C B A
D C B A
C B A
B A
A
B A
C B A
D C B A
E D C B A
```

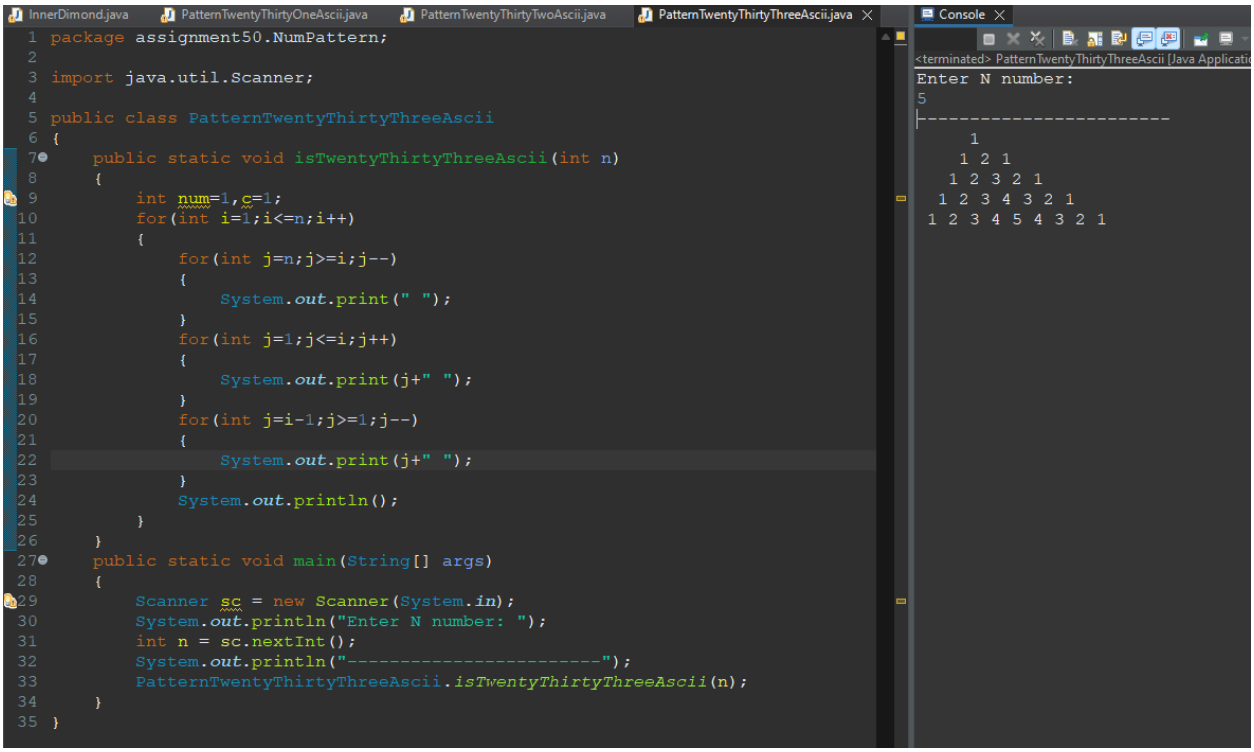
Q.35



```
InnerDimond.java  PatternTwentyThirtyOneAscii.java  PatternTwentyThirtyTwoAscii.java

1  package assignment50.NumPattern;
2
3  import java.util.Scanner;
4
5  public class PatternTwentyThirtyTwoAscii
6  {
7      public static void isTwentyThirtyTwoAscii(int n)
8      {
9          for(int i=1;i<=n;i++)
10         {
11             for(int j=n;j>=i;j--)
12             {
13                 System.out.print("* ");
14             }
15             System.out.println();
16         }
17         for(int i=2;i<=n;i++)
18         {
19             for(int j=1;j<=i;j++)
20             {
21                 System.out.print("* ");
22             }
23             System.out.println();
24         }
25     }
26     public static void main(String[] args)
27     {
28         Scanner sc = new Scanner(System.in);
29         System.out.println("Enter N number: ");
30         int n = sc.nextInt();
31         System.out.println("------------------------");
32         PatternTwentyThirtyTwoAscii.isTwentyThirtyTwoAscii(n);
33     }
34 }
35
```

```
Console
<terminated> PatternTwentyThirtyTwoAscii [Java Application
Enter N number:
5
------------------------
* * * * *
* * * *
* * *
* *
*
* *
* * *
* * * *
* * * * *
```

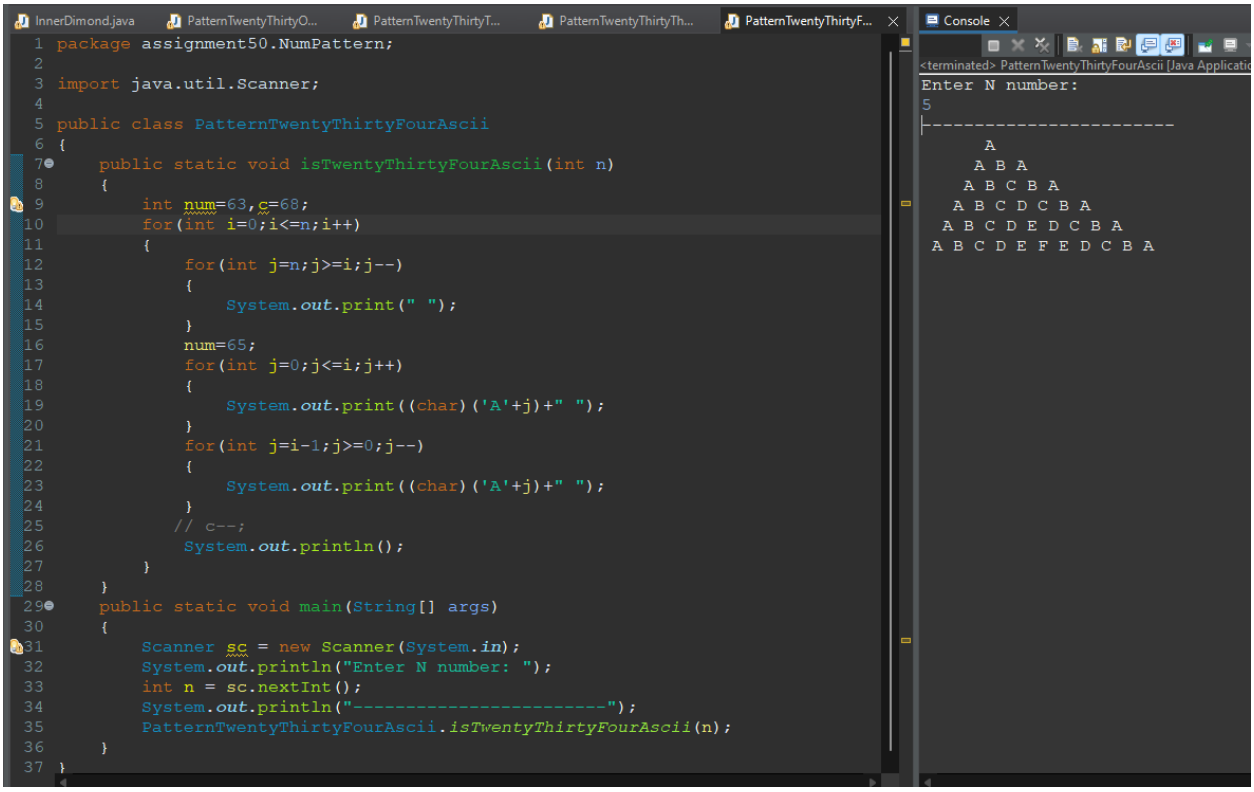
Q.36



```
InnerDimond.java  PatternTwentyThirtyOneAscii.java  PatternTwentyThirtyTwoAscii.java  PatternTwentyThirtyThreeAscii.java

1  package assignment50.NumPattern;
2
3  import java.util.Scanner;
4
5  public class PatternTwentyThirtyThreeAscii
6  {
7      public static void isTwentyThirtyThreeAscii(int n)
8      {
9          int num=1,c=1;
10         for(int i=1;i<=n;i++)
11         {
12             for(int j=n;j>=i;j--)
13             {
14                 System.out.print(" ");
15             }
16             for(int j=1;j<=i;j++)
17             {
18                 System.out.print(j+" ");
19             }
20             for(int j=i-1;j>=1;j--)
21             {
22                 System.out.print(j+" ");
23             }
24             System.out.println();
25         }
26     }
27     public static void main(String[] args)
28     {
29         Scanner sc = new Scanner(System.in);
30         System.out.println("Enter N number: ");
31         int n = sc.nextInt();
32         System.out.println("------------------------");
33         PatternTwentyThirtyThreeAscii.isTwentyThirtyThreeAscii(n);
34     }
35 }
```

```
Console
<terminated> PatternTwentyThirtyThreeAscii [Java Applicati
Enter N number:
5
------------------------
      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
```

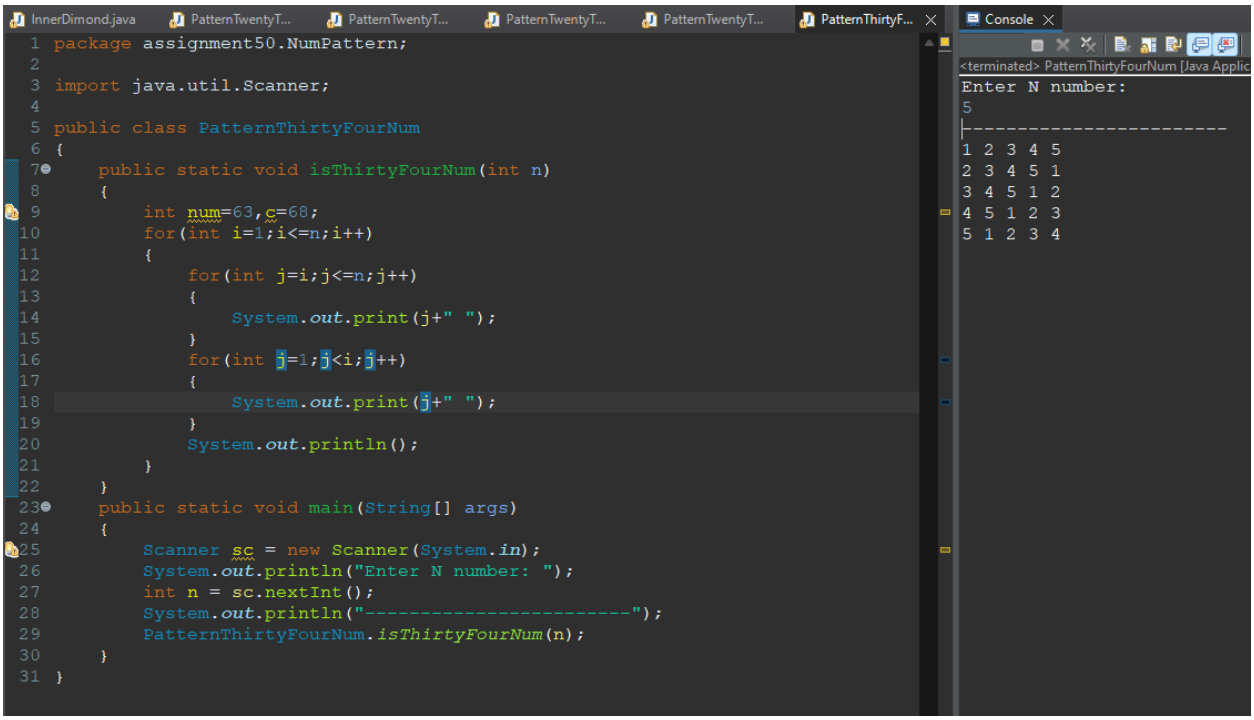
Q.37



```
package assignment50.NumPattern;

import java.util.Scanner;

public class PatternTwentyThirtyFourAscii
{
    public static void isTwentyThirtyFourAscii(int n)
    {
        int num=63,c=68;
        for(int i=0;i<=n;i++)
        {
            for(int j=n;j>=i;j--)
            {
                System.out.print(" ");
            }
            num=65;
            for(int j=0;j<=i;j++)
            {
                System.out.print((char)('A'+j)+" ");
            }
            for(int j=i-1;j>=0;j--)
            {
                System.out.print((char)('A'+j)+" ");
            }
           // c--;
            System.out.println();
        }
    }
    public static void main(String[] args)
    {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter N number: ");
        int n = sc.nextInt();
        System.out.println("------------------------");
        PatternTwentyThirtyFourAscii.isTwentyThirtyFourAscii(n);
    }
}
```

```
Enter N number:
5
------------------------
        A
      A B A
    A B C B A
  A B C D C B A
A B C D E D C B A
```

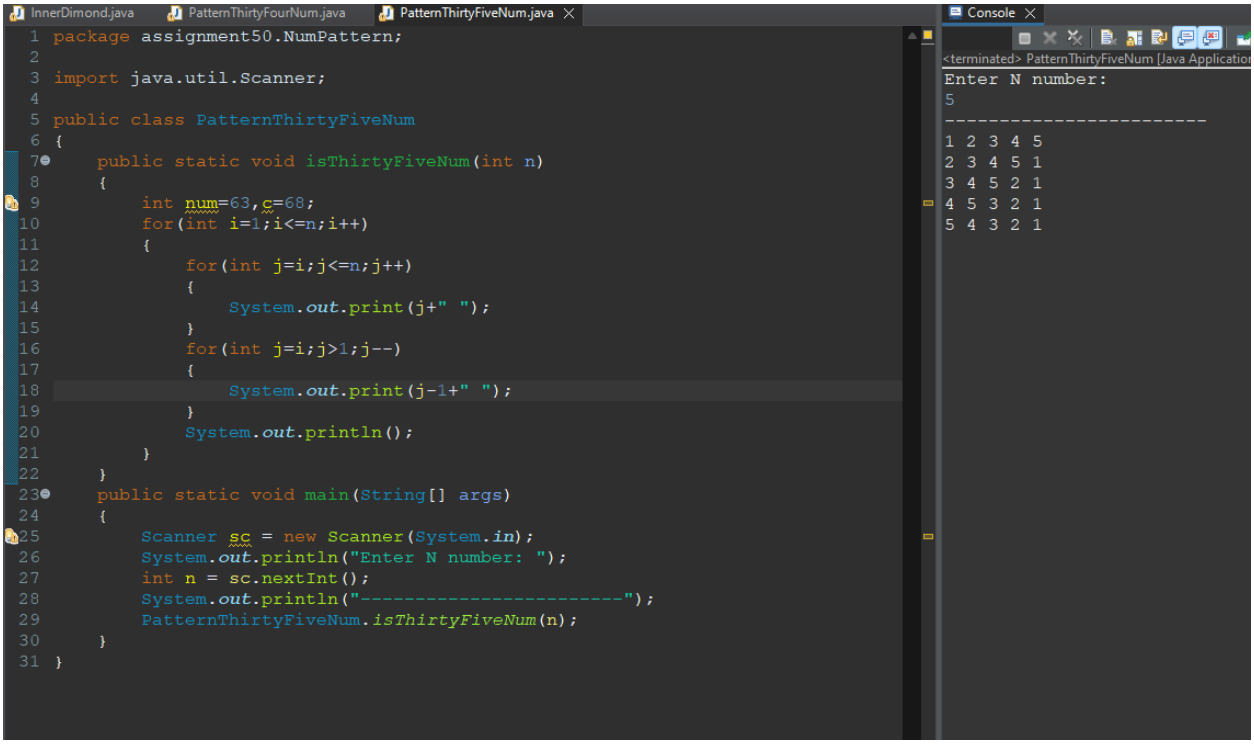
Q.38



```
package assignment50.NumPattern;

import java.util.Scanner;

public class PatternThirtyFourNum
{
    public static void isThirtyFourNum(int n)
    {
        int num=63,c=68;
        for(int i=1;i<=n;i++)
        {
            for(int j=i;j<=n;j++)
            {
                System.out.print(j+" ");
            }
            for(int j=1;j<i;j++)
            {
                System.out.print(j+" ");
            }
            System.out.println();
        }
    }
    public static void main(String[] args)
    {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter N number: ");
        int n = sc.nextInt();
        System.out.println("------------------------");
        PatternThirtyFourNum.isThirtyFourNum(n);
    }
}
```

```
Enter N number:
5
------------------------
1 2 3 4 5
2 3 4 5 1
3 4 5 1 2
4 5 1 2 3
5 1 2 3 4
```

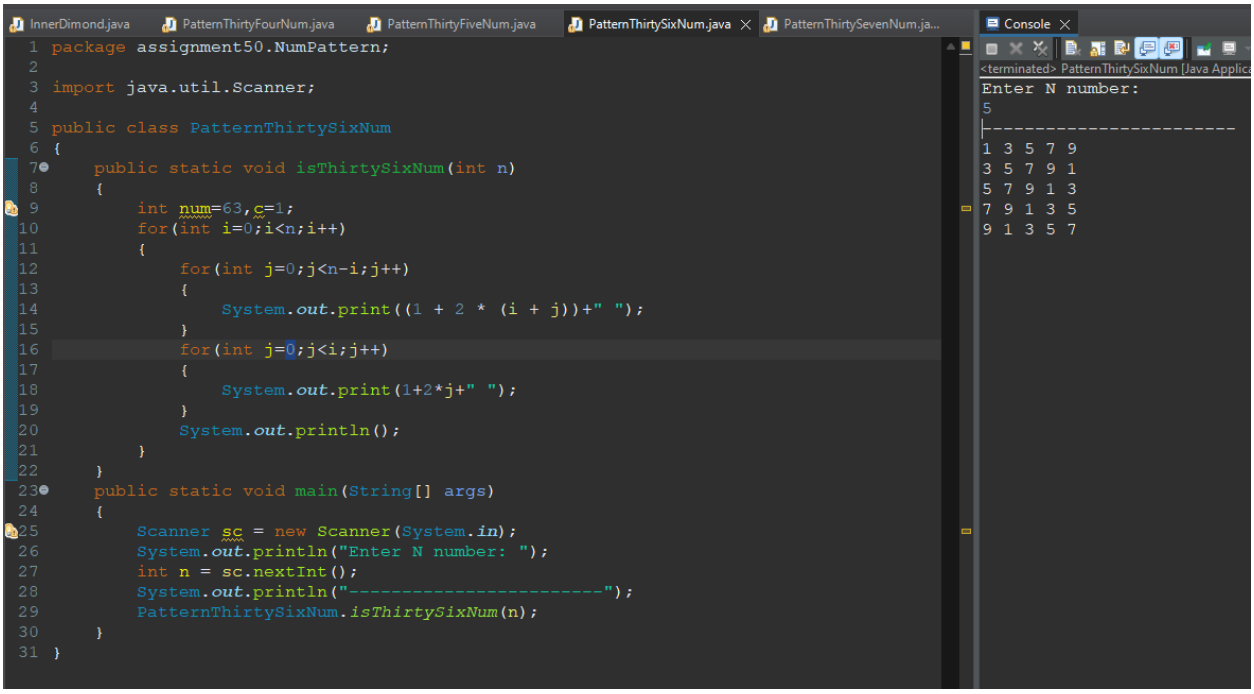
Q.39



```
InnerDimond.java  PatternThirtyFourNum.java  PatternThirtyFiveNum.java
1  package assignment50.NumPattern;
2
3  import java.util.Scanner;
4
5  public class PatternThirtyFiveNum
6  {
7      public static void isThirtyFiveNum(int n)
8      {
9          int num=63,c=68;
10         for(int i=1;i<=n;i++)
11         {
12             for(int j=i;j<=n;j++)
13             {
14                 System.out.print(j+" ");
15             }
16             for(int j=i;j>1;j--)
17             {
18                 System.out.print(j-1+" ");
19             }
20             System.out.println();
21         }
22     }
23     public static void main(String[] args)
24     {
25         Scanner sc = new Scanner(System.in);
26         System.out.println("Enter N number: ");
27         int n = sc.nextInt();
28         System.out.println("------------------------");
29         PatternThirtyFiveNum.isThirtyFiveNum(n);
30     }
31 }
```

```
Console
<terminated> PatternThirtyFiveNum [Java Application
Enter N number:
5
------------------------
1 2 3 4 5
2 3 4 5 1
3 4 5 2 1
4 5 3 2 1
5 4 3 2 1
```

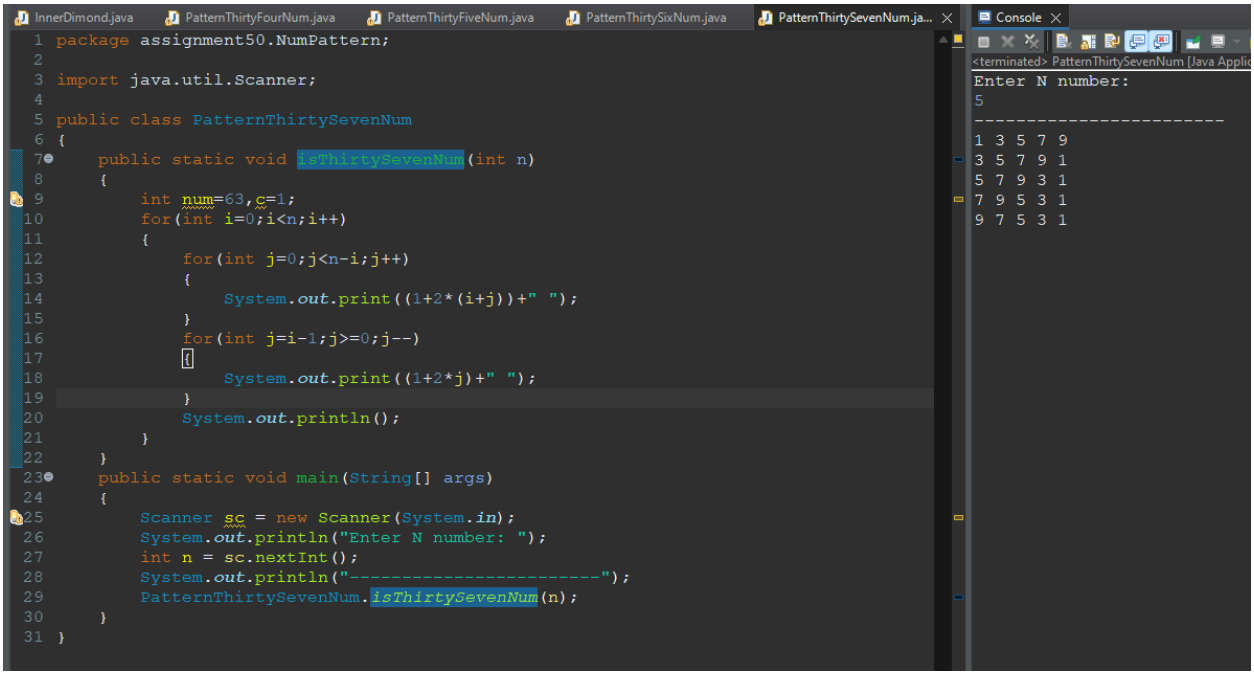
Q.40



```
InnerDimond.java  PatternThirtyFourNum.java  PatternThirtyFiveNum.java  PatternThirtySixNum.java  PatternThirtySevenNum.ja...
1  package assignment50.NumPattern;
2
3  import java.util.Scanner;
4
5  public class PatternThirtySixNum
6  {
7      public static void isThirtySixNum(int n)
8      {
9          int num=63,c=1;
10         for(int i=0;i<n;i++)
11         {
12             for(int j=0;j<n-i;j++)
13             {
14                 System.out.print((1 + 2 * (i + j))+" ");
15             }
16             for(int j=0;j<i;j++)
17             {
18                 System.out.print(1+2*j+" ");
19             }
20             System.out.println();
21         }
22     }
23     public static void main(String[] args)
24     {
25         Scanner sc = new Scanner(System.in);
26         System.out.println("Enter N number: ");
27         int n = sc.nextInt();
28         System.out.println("------------------------");
29         PatternThirtySixNum.isThirtySixNum(n);
30     }
31 }
```

```
Console
<terminated> PatternThirtySixNum [Java Applica
Enter N number:
5
------------------------
1 3 5 7 9
3 5 7 9 1
5 7 9 1 3
7 9 1 3 5
9 1 3 5 7
```

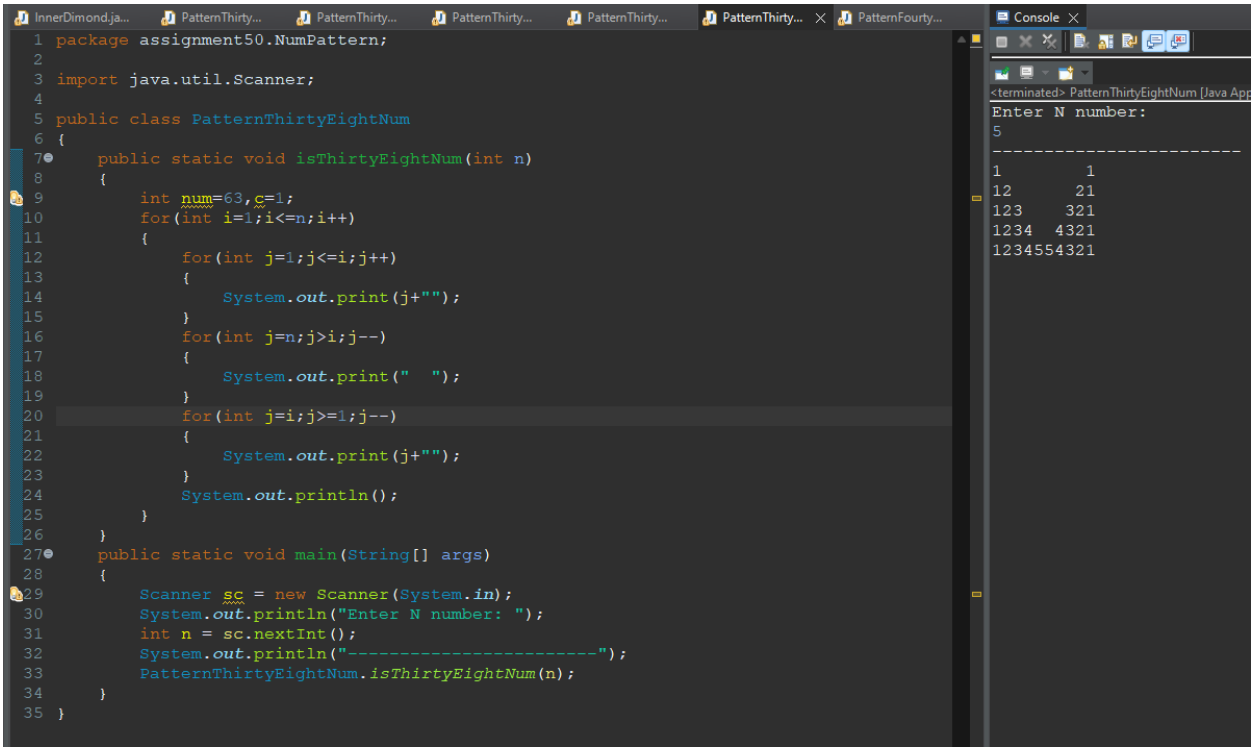
Q.41



```
package assignment50.NumPattern;

import java.util.Scanner;

public class PatternThirtySevenNum
{
    public static void isThirtySevenNum(int n)
    {
        int num=63,c=1;
        for(int i=0;i<n;i++)
        {
            for(int j=0;j<n-i;j++)
            {
                System.out.print((1+2*(i+j))+" ");
            }
            for(int j=i-1;j>=0;j--)
            {
                System.out.print((1+2*j)+" ");
            }
            System.out.println();
        }
    }
    public static void main(String[] args)
    {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter N number: ");
        int n = sc.nextInt();
        System.out.println("-----------------------");
        PatternThirtySevenNum.isThirtySevenNum(n);
    }
}
```

```
Enter N number:
5
-----------------------
1 3 5 7 9
3 5 7 9 1
5 7 9 3 1
7 9 5 3 1
9 7 5 3 1
```

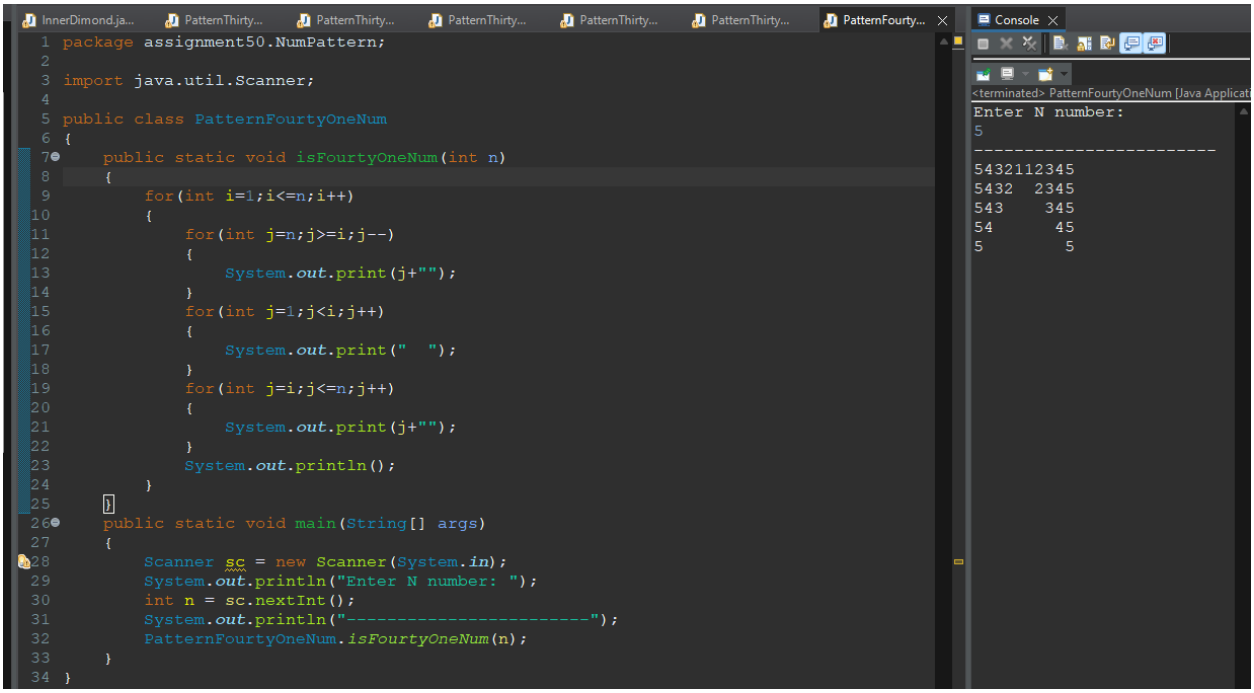
Q.42



```
package assignment50.NumPattern;

import java.util.Scanner;

public class PatternThirtyEightNum
{
    public static void isThirtyEightNum(int n)
    {
        int num=63,c=1;
        for(int i=1;i<=n;i++)
        {
            for(int j=1;j<=i;j++)
            {
                System.out.print(j+"");
            }
            for(int j=n;j>i;j--)
            {
                System.out.print("  ");
            }
            for(int j=i;j>=1;j--)
            {
                System.out.print(j+"");
            }
            System.out.println();
        }
    }
    public static void main(String[] args)
    {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter N number: ");
        int n = sc.nextInt();
        System.out.println("-----------------------");
        PatternThirtyEightNum.isThirtyEightNum(n);
    }
}
```

```
Enter N number:
5
-----------------------
1         1
12       21
123     321
1234   4321
1234554321
```

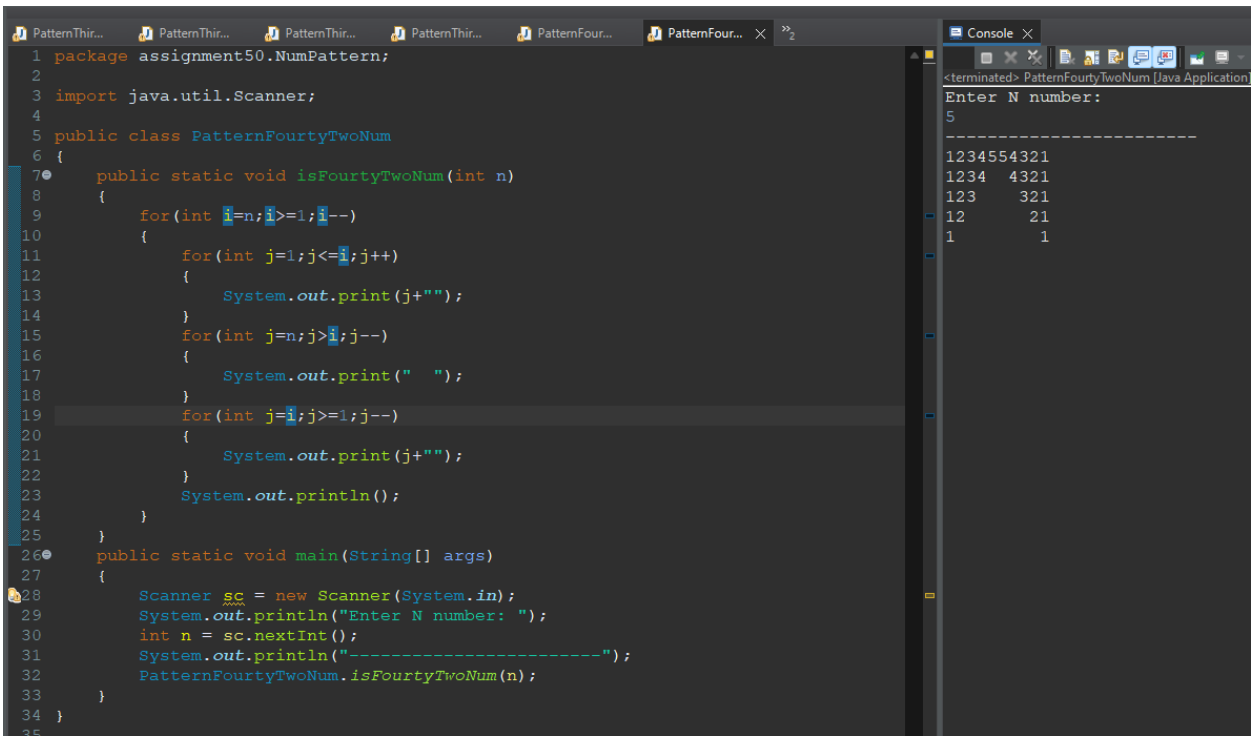
Q.45



```
package assignment50.NumPattern;

import java.util.Scanner;

public class PatternFourtyOneNum
{
    public static void isFourtyOneNum(int n)
    {
        for(int i=1;i<=n;i++)
        {
            for(int j=n;j>=i;j--)
            {
                System.out.print(j+"");
            }
            for(int j=1;j<i;j++)
            {
                System.out.print("  ");
            }
            for(int j=i;j<=n;j++)
            {
                System.out.print(j+"");
            }
            System.out.println();
        }
    }
    public static void main(String[] args)
    {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter N number: ");
        int n = sc.nextInt();
        System.out.println("------------------------");
        PatternFourtyOneNum.isFourtyOneNum(n);
    }
}
```

```
Enter N number:
5
------------------------
5432112345
5432  2345
543    345
54      45
5        5
```

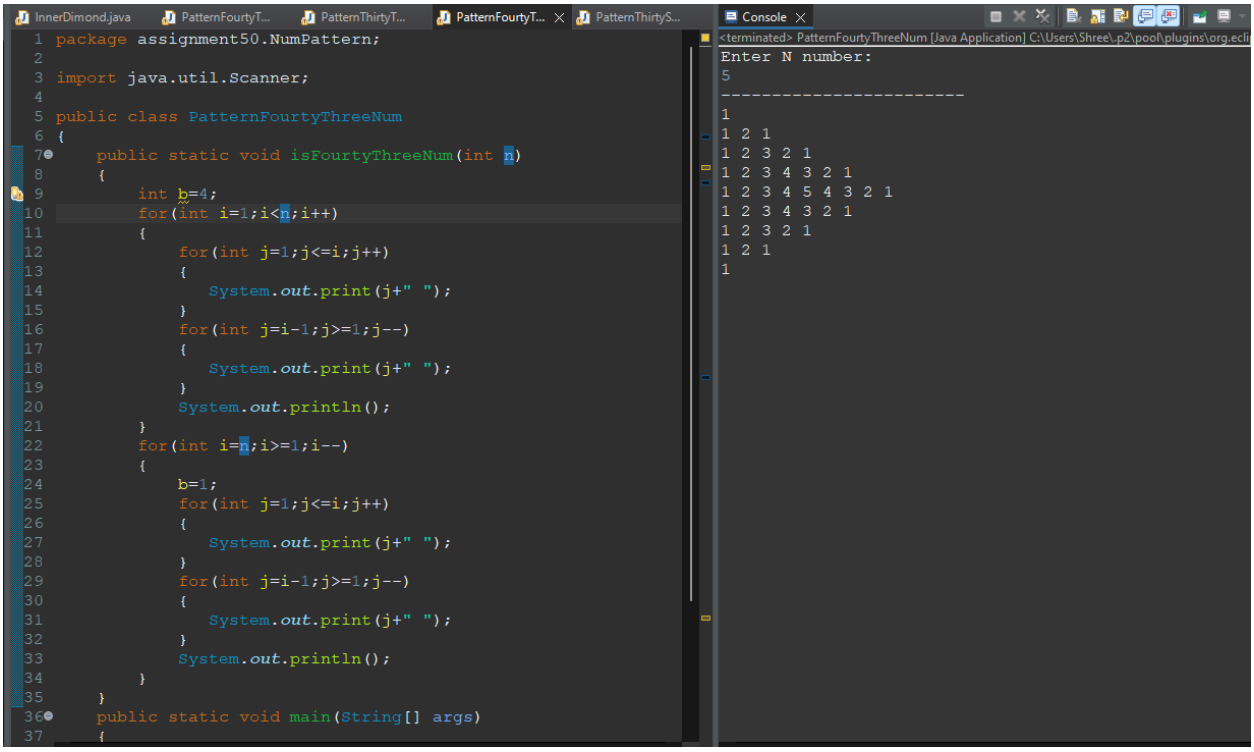
Q.46



```
package assignment50.NumPattern;

import java.util.Scanner;

public class PatternFourtyTwoNum
{
    public static void isFourtyTwoNum(int n)
    {
        for(int i=n;i>=1;i--)
        {
            for(int j=1;j<=i;j++)
            {
                System.out.print(j+"");
            }
            for(int j=n;j>i;j--)
            {
                System.out.print("  ");
            }
            for(int j=i;j>=1;j--)
            {
                System.out.print(j+"");
            }
            System.out.println();
        }
    }
    public static void main(String[] args)
    {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter N number: ");
        int n = sc.nextInt();
        System.out.println("------------------------");
        PatternFourtyTwoNum.isFourtyTwoNum(n);
    }
}
```

```
Enter N number:
5
------------------------
1234554321
1234  4321
123    321
12      21
1        1
```

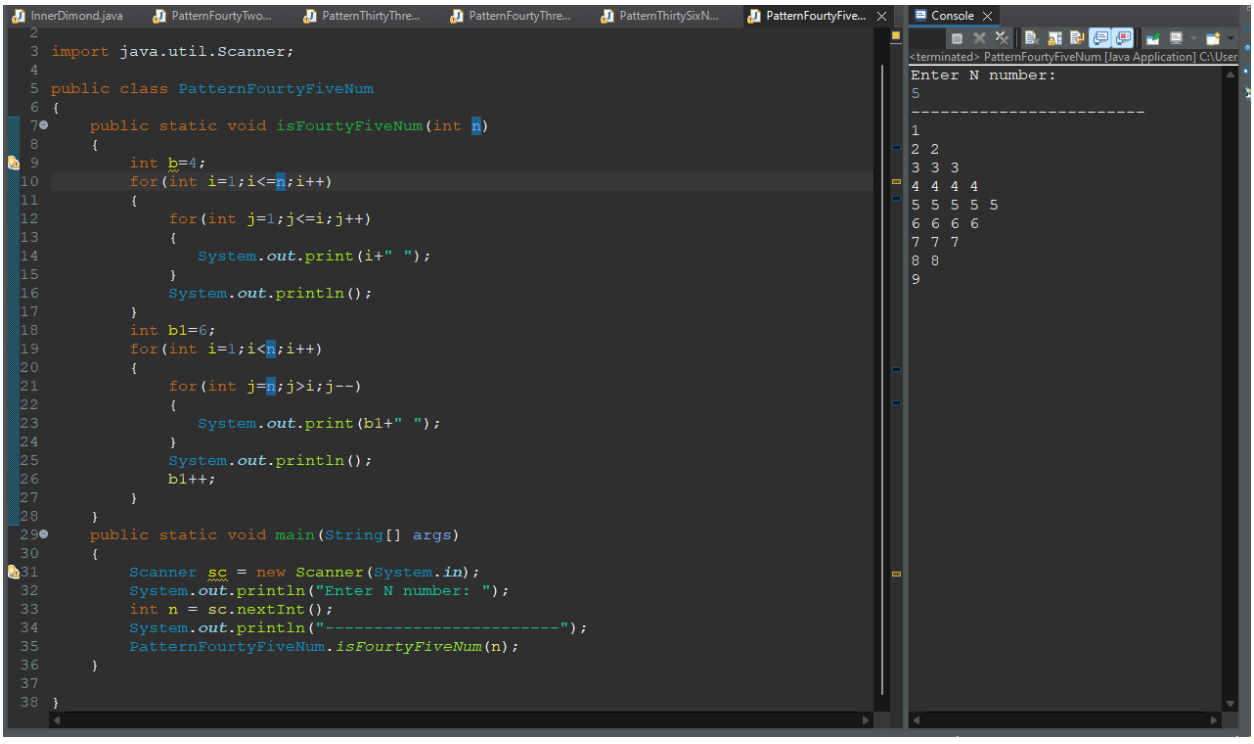
Q.47



```
package assignment50.NumPattern;

import java.util.Scanner;

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

```
<terminated> PatternFourtyThreeNum [Java Application] C:\Users\Shree\.p2\pool\plugins\org.ecli
Enter N number:
5
------------------------
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 3 2 1
1 2 3 2 1
1 2 1
1
```

Q.49



```
import java.util.Scanner;

public class PatternFourtyFiveNum
{
    public static void isFourtyFiveNum(int n)
    {
        int b=4;
        for(int i=1;i<=n;i++)
        {
            for(int j=1;j<=i;j++)
            {
               System.out.print(i+" ");
            }
            System.out.println();
        }
        int b1=6;
        for(int i=1;i<n;i++)
        {
            for(int j=n;j>i;j--)
            {
               System.out.print(b1+" ");
            }
            System.out.println();
            b1++;
        }
    }
    public static void main(String[] args)
    {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter N number: ");
        int n = sc.nextInt();
        System.out.println("------------------------");
        PatternFourtyFiveNum.isFourtyFiveNum(n);
    }

}
```

```
<terminated> PatternFourtyFiveNum [Java Application] C:\User
Enter N number:
5
------------------------
1
2 2
3 3 3
4 4 4 4
5 5 5 5 5
6 6 6 6
7 7 7
8 8
9
```