```java
import java.util.Scanner;

// import jdk.javadoc.internal.doclets.formats.html.SourceToHTMLConverter;

class week2a {
    public static void main(String args[]){
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter a number-");
        int n = sc.nextInt();

        int num = 1;
        for (int i = 0; i < n; i++){
            for (int j = 0; j <= i; j++){
                System.out.print(num + " ");
                ++num;
            }
            System.out.println();

        }

    }
}
```
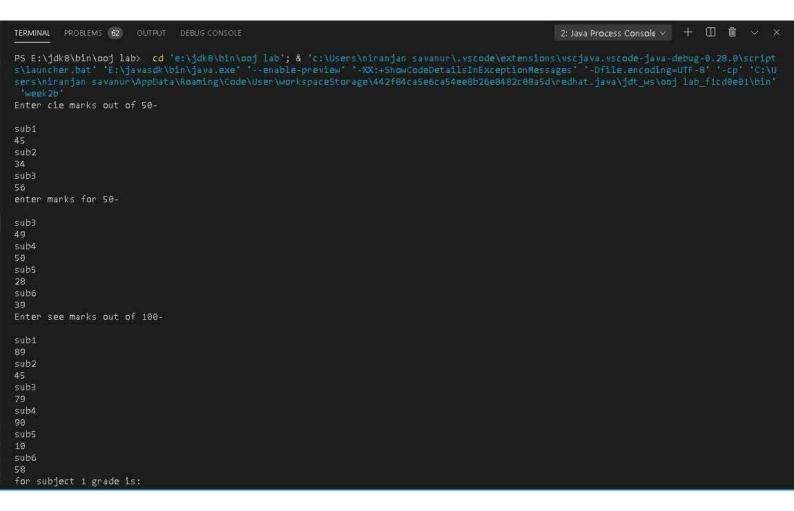
```
PS E:\jdk8\bin\ooj lab>  cd 'e:\jdk8\bin\ooj lab'; & 'c:\Users\niranjan savanur\.vscode\extensions\vscjava.vscode-java-debug-0.28.0\script
s\launcher.bat' 'E:\javasdk\bin\java.exe' '--enable-preview' '-XX:+ShowCodeDetailsInExceptionMessages' '-Dfile.encoding=UTF-8' '-cp' 'C:\U
sers\niranjan savanur\AppData\Roaming\Code\User\workspaceStorage\442f84ca5e6ca54ee8b26e8482c08a5d\redhat.java\jdt_ws\ooj lab_f1cd0e01\bin'
 'week2a'
Enter a number-
7
1
2 3
4 5 6
7 8 9 10
11 12 13 14 15
16 17 18 19 20 21
22 23 24 25 26 27 28
PS E:\jdk8\bin\ooj lab> 
```
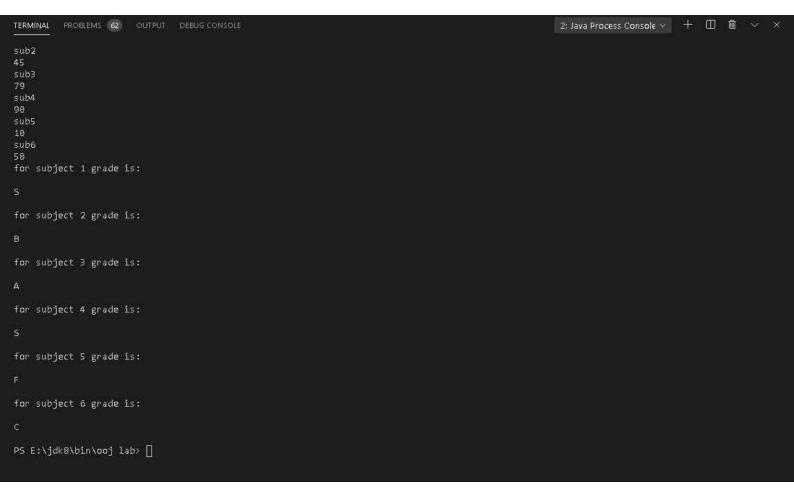
```java
1    import java.util.Scanner;
2    import java.lang.Math;
3    class week2b {
     Run | Debug
4        public static void main(String args[]){
5            final int SUB = 6;
6            float[] cieMark = new float[SUB];
7            float[] seeMark = new float[SUB];
8            float[] totMark = new float[SUB];
9            float cie, see;
10           int i, j, k;
11           Scanner sc = new Scanner(System.in);
12           System.out.println("Enter cie marks out of 50-\n");
13            for ( i = 0; i<SUB; i++){
14               System.out.print("sub"+(i+1)+"\n");
15
16               cie = sc.nextFloat();
17               if (cie > 50) {
18                   System.out.println("enter marks for 50-\n");
19                   i -= 1;
20               }
21               cieMark[i] = Math.round(cie);
22           }
23           System.out.println("Enter see marks out of 100-\n");
24           for( j = 0; j< SUB; j++){
25               System.out.print("sub"+(j+1)+"\n");
26
27               see = sc.nextFloat();
28               if (see > 100){
29                   System.out.println("enter marks for 100-\n");
30                   i -= 1;
31               }
32               else {
```

```java
            System.out.println("enter marks for 100-\n");
            i -= 1;
        }
        else {
            seeMark[j] = Math.round(see/2);
        }
    }
    for (k = 0; k < SUB; k++) {
        totMark[k] = cieMark[k] + seeMark[k];
        System.out.println("for subject " + (k+1) + " grade is:\n");
        if (totMark[k] >= 90) {
            System.out.println("S\n");
        } else if (totMark[k] >= 80) {
            System.out.println("A\n");
        } else if (totMark[k] >= 70) {
            System.out.println("B\n");
        } else if (totMark[k] >= 60) {
            System.out.println("C\n");
        } else if (totMark[k] >= 50) {
            System.out.println("D\n");
        } else if (totMark[k] >= 40) {
            System.out.println("E\n");
        } else {
            System.out.println("F\n");
        }

    }

    }
}
```

```
PS E:\jdk8\bin\ooj lab>  cd 'e:\jdk8\bin\ooj lab'; & 'c:\Users\niranjan savanur\.vscode\extensions\vscjava.vscode-java-debug-0.28.0\script
s\launcher.bat' 'E:\javasdk\bin\java.exe' '--enable-preview' '-XX:+ShowCodeDetailsInExceptionMessages' '-Dfile.encoding=UTF-8' '-cp' 'C:\U
sers\niranjan savanur\AppData\Roaming\Code\User\workspaceStorage\442f84ca5e6ca54ee8b26e8482c08a5d\redhat.java\jdt_ws\ooj lab_f1cd0e01\bin'
 'week2b'
Enter cie marks out of 50-

sub1
45
sub2
34
sub3
56
enter marks for 50-

sub3
49
sub4
50
sub5
28
sub6
39
Enter see marks out of 100-

sub1
89
sub2
45
sub3
79
sub4
90
sub5
10
sub6
58
for subject 1 grade is:
```

```
sub2
45
sub3
79
sub4
90
sub5
10
sub6
58
for subject 1 grade is:

S

for subject 2 grade is:

B

for subject 3 grade is:

A

for subject 4 grade is:

S

for subject 5 grade is:

F

for subject 6 grade is:

C

PS E:\jdk8\bin\ooj lab> []
```

```java
import java.util.Scanner;
public class week2c {
    Run | Debug
    public static void main(String args[]){
        int a, b, num1, num2, i, j;
        Scanner sc = new Scanner(System.in);
    System.out.println("Enter two nos:");
    num1 = sc.nextInt();
    num2 = sc.nextInt();
    if(num1>num2){
        a = num2;
        b = num1;
    }
    else{
        a = num1;
        b = num2;
    }
    if(b < 2){
        System.out.println("there are no prime nos in this range.");
        System.exit(0);
    }
    System.out.println("prime nos in the range are:");
    for (i = a; i <= b; i++){
        int flag = 0;
        for(j = 2; j <= i/2; j++){
            if (i % j == 0){
                flag = 1;
                break;
            }
        }
        if (flag == 0 && i != 1 && i != 0){
        System.out.print(i);
        System.out.println();
        }
    }
    }
}
```

```
PS E:\jdk8\bin\ooj lab>  cd 'e:\jdk8\bin\ooj lab'; & 'c:\Users\niranjan savanur\.vscode\extensions\vscjava.vscode-java-debug-0.28.0\script
s\launcher.bat' 'E:\javasdk\bin\java.exe' '--enable-preview' '-XX:+ShowCodeDetailsInExceptionMessages' '-Dfile.encoding=UTF-8' '-cp' 'C:\U
sers\niranjan savanur\AppData\Roaming\Code\User\workspaceStorage\442f84ca5e6ca54ee8b26e8482c08a5d\redhat.java\jdt_ws\ooj lab_f1cd0e01\bin'
 'week2c'
Enter two nos:
0
45
prime nos in the range are:
2
3
5
7
11
13
17
19
23
29
31
37
41
43
PS E:\jdk8\bin\ooj lab> []
```

```java
1    import java.util.Scanner;
2    import java.lang.Math;
3    public class week2d {
     Run | Debug
4        public static void main(String args[]){
5            final double pi = 3.14;
6            double r, h;
7            int choice;
8        double area, volume;
9        System.out.println("Enter shape you want\n");
10       Scanner sc = new Scanner(System.in);
11       do
12       {
13           System.out.println("menu 1:Cylider 2:Cone 3:Sphere 4:Exit\n");
14           choice = sc.nextInt();
15           switch (choice)
16           {
17           case 1:
18               System.out.println("Enter radius:\n");
19               r = sc.nextDouble();
20               System.out.println("Enter height:\n");
21               h = sc.nextDouble();
22               area = (2 * pi * r * h) + (2 * pi * (Math.pow(r, 2)));
23               volume = pi * (Math.pow(r, 2)) * h;
24               System.out.println("Area:"+ area +" Volume:"+ volume+"\n");
25               break;
26           case 2:
27               System.out.println("Enter radius:\n");
28               r = sc.nextDouble();
29               System.out.println("Enter height:\n");
30               h = sc.nextDouble();
31               area = pi * r * (r + Math.sqrt(Math.pow(h, 2) + Math.pow(r, 2)));
32               volume = pi * Math.pow(r, 2) * h / 3.0;
```

```java
22        area = (2 * pi * r * h) + (2 * pi * (Math.pow(r, 2)));
23        volume = pi * (Math.pow(r, 2)) * h;
24        System.out.println("Area:"+ area +" Volume:"+ volume+"\n");
25        break;
26    case 2:
27        System.out.println("Enter radius:\n");
28        r = sc.nextDouble();
29        System.out.println("Enter height:\n");
30        h = sc.nextDouble();
31        area = pi * r * (r + Math.sqrt(Math.pow(h, 2) + Math.pow(r, 2)));
32        volume = pi * Math.pow(r, 2) * h / 3.0;
33        System.out.println("Area:"+area+" Volume:"+ volume+"\n");
34        break;
35    case 3:
36        System.out.println("Enter radius:\n");
37        r = sc.nextDouble();
38        area = 4 * pi * Math.pow(r, 2);
39        volume = (4 / 3.0) * (pi * (Math.pow(r, 3)));
40        System.out.println("Area:"+area+" Volume:"+ volume+"\n");
41        break;
42    case 4:
43        System.out.println("Exit\n");
44        sc.close();
45        break;
46    default:
47        System.out.println("Enter a no. ranging from 1 to 4\n");
48    }
49
50 } while (choice != 4);
51    }
52 }
53
```

```
s\launcher.bat' 'E:\javasdk\bin\java.exe' '--enable-preview' '-XX:+ShowCodeDetailsInExceptionMessages' '-Dfile.encoding=UTF-8' '-cp' 'C:\U
sers\niranjan savanur\AppData\Roaming\Code\User\workspaceStorage\442f84ca5e6ca54ee8b26e8482c08a5d\redhat.java\jdt_ws\ooj lab_f1cd0e01\bin'
 'week2d'
Enter shape you want

menu 1:Cylider 2:Cone 3:Sphere 4:Exit

1
Enter radius:

3
Enter height:

4
Area:131.88 Volume:113.04

menu 1:Cylider 2:Cone 3:Sphere 4:Exit

2
Enter radius:

3
Enter height:

4
Area:75.36 Volume:37.68

menu 1:Cylider 2:Cone 3:Sphere 4:Exit

3
Enter radius:

3
Area:113.04 Volume:113.03999999999

menu 1:Cylider 2:Cone 3:Sphere 4:Exit

4
Exit
```