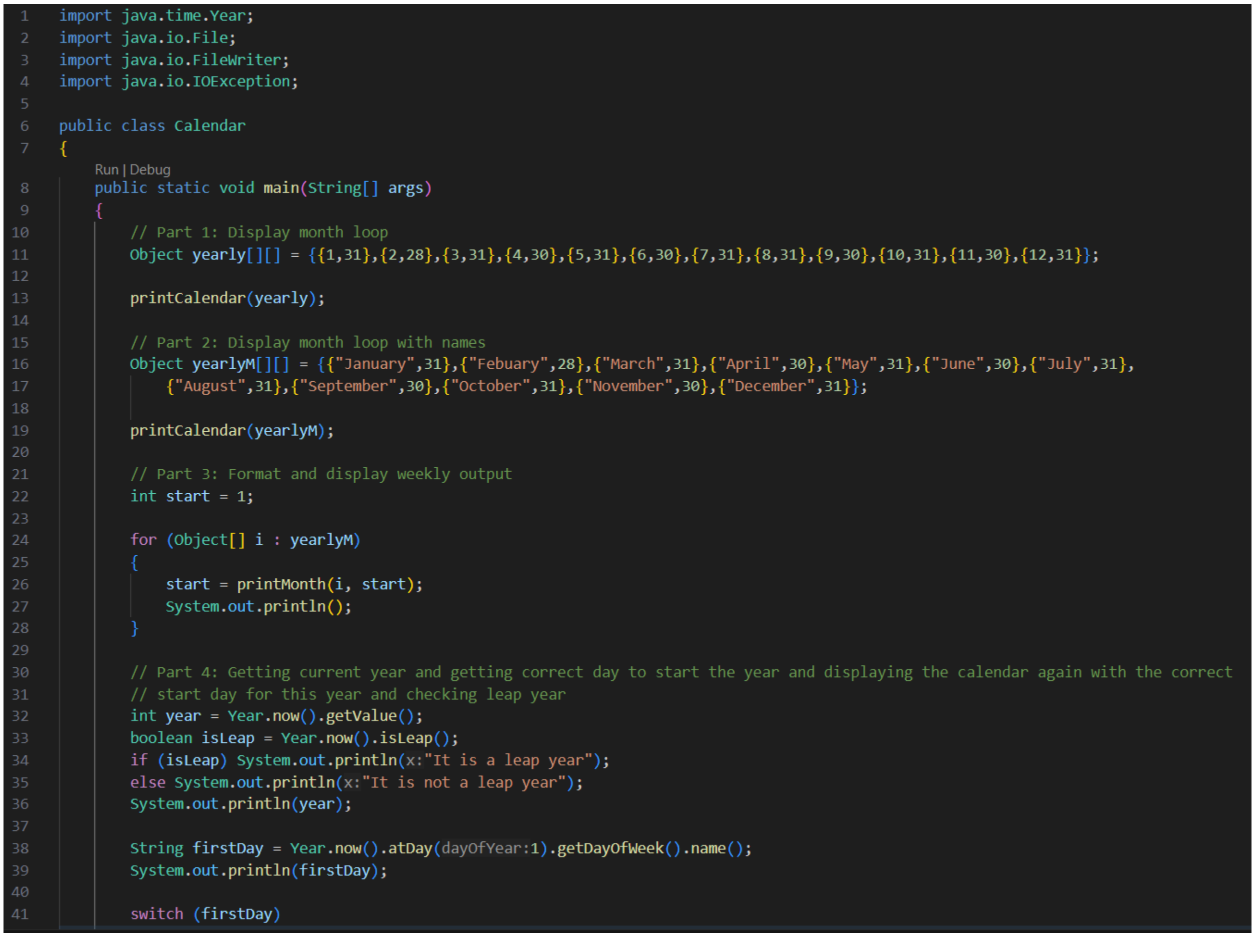
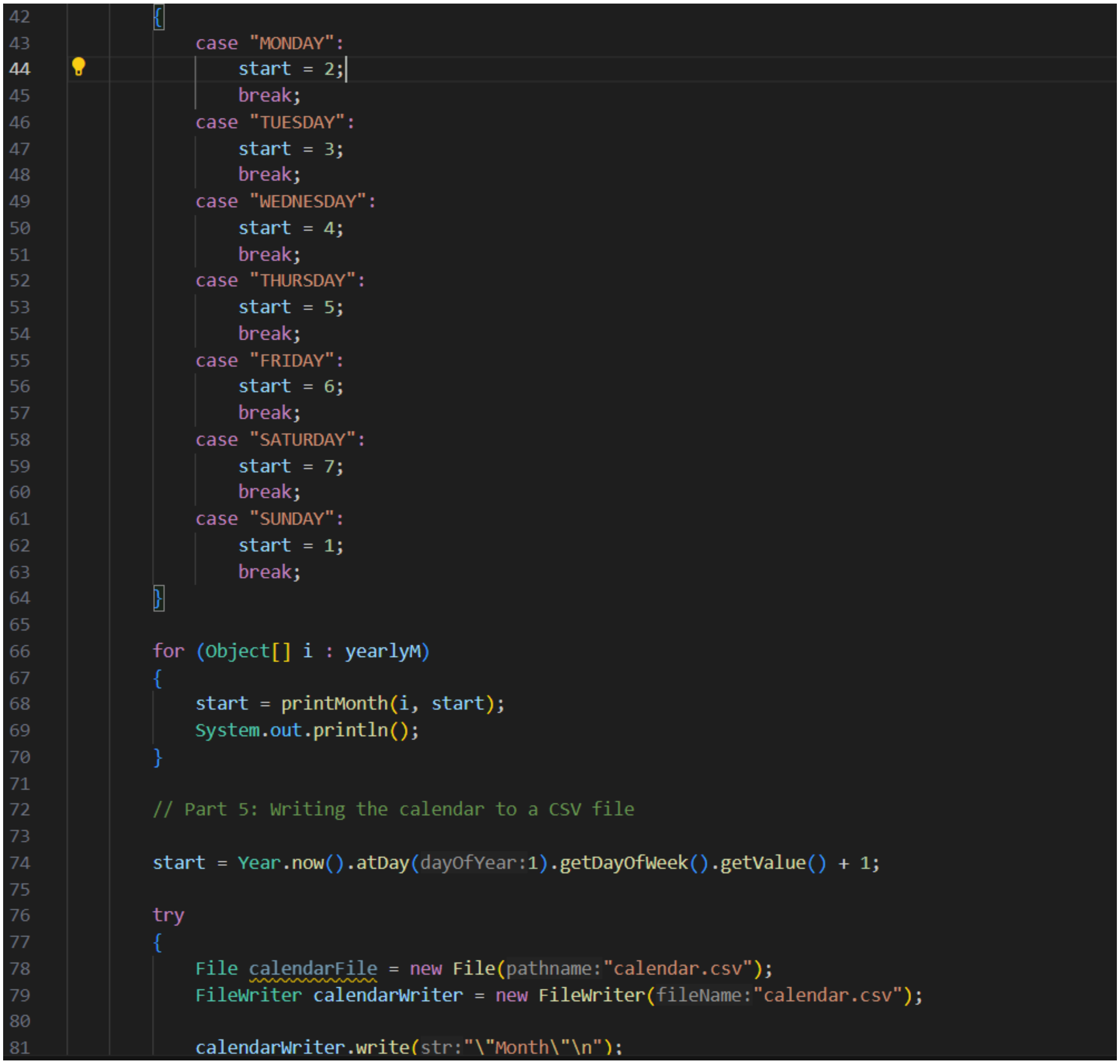
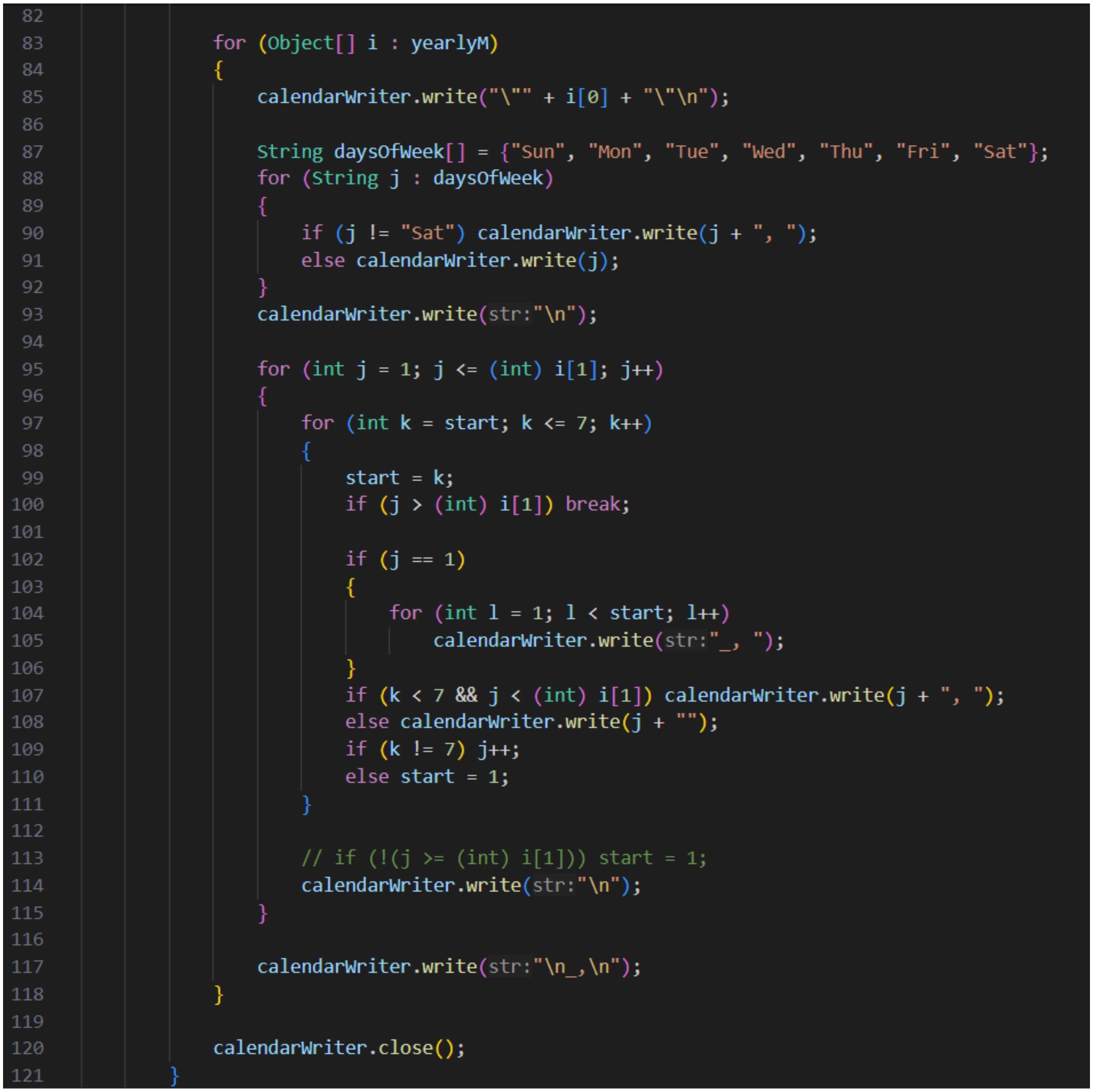
Source code:



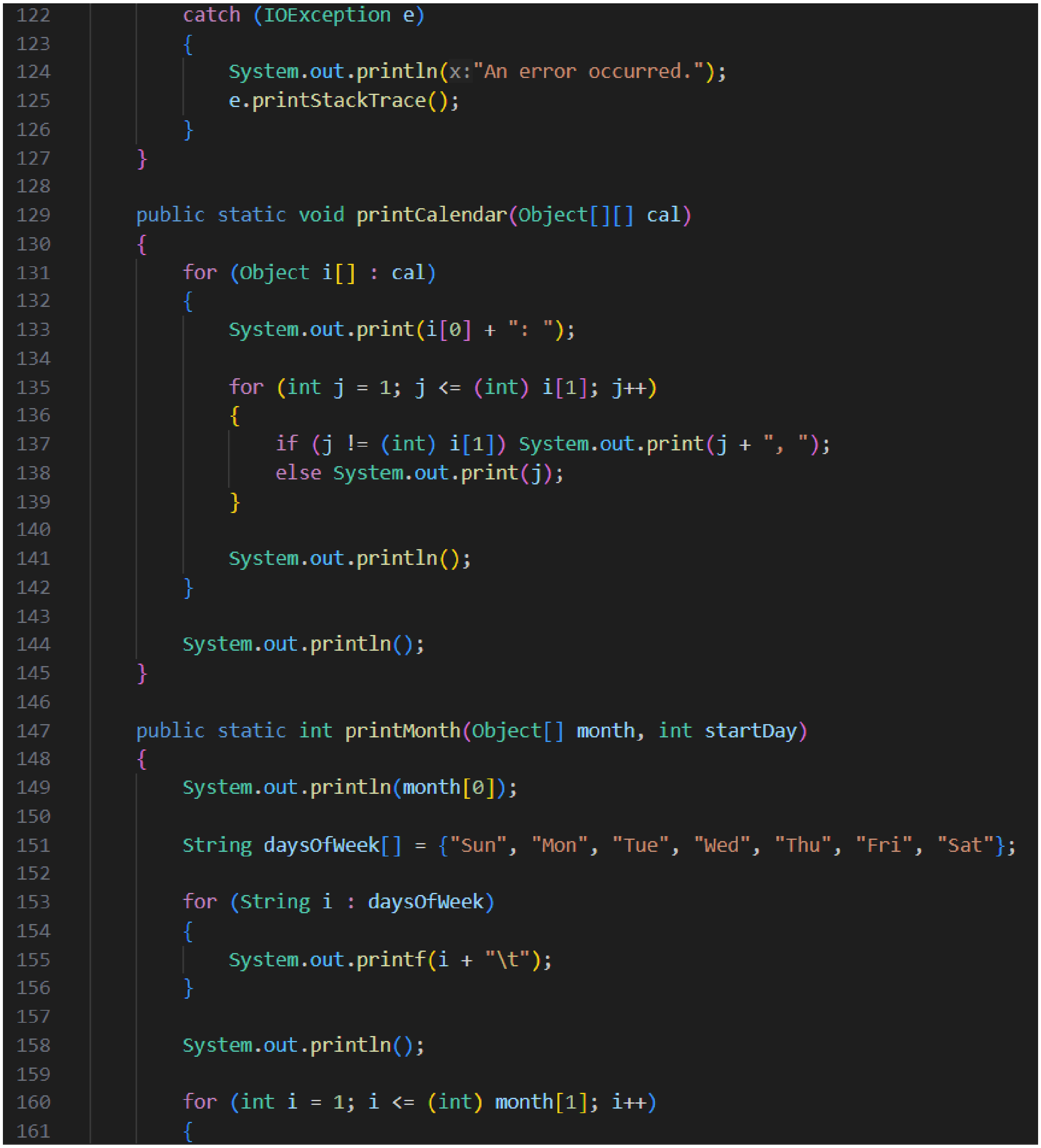
```java
import java.time.Year;
import java.io.File;
import java.io.FileWriter;
import java.io.IOException;

public class Calendar
{
    public static void main(String[] args)
    {
        // Part 1: Display month loop
        Object yearly[][] = {{1,31},{2,28},{3,31},{4,30},{5,31},{6,30},{7,31},{8,31},{9,30},{10,31},{11,30},{12,31}};

        printCalendar(yearly);

        // Part 2: Display month loop with names
        Object yearlyM[][] = {{"January",31},{"Febuary",28},{"March",31},{"April",30},{"May",31},{"June",30},{"July",31},
            {"August",31},{"September",30},{"October",31},{"November",30},{"December",31}};

        printCalendar(yearlyM);

        // Part 3: Format and display weekly output
        int start = 1;

        for (Object[] i : yearlyM)
        {
            start = printMonth(i, start);
            System.out.println();
        }

        // Part 4: Getting current year and getting correct day to start the year and displaying the calendar again with the correct
        // start day for this year and checking leap year
        int year = Year.now().getValue();
        boolean isLeap = Year.now().isLeap();
        if (isLeap) System.out.println(x:"It is a leap year");
        else System.out.println(x:"It is not a leap year");
        System.out.println(year);

        String firstDay = Year.now().atDay(dayOfYear:1).getDayOfWeek().name();
        System.out.println(firstDay);

        switch (firstDay)
```



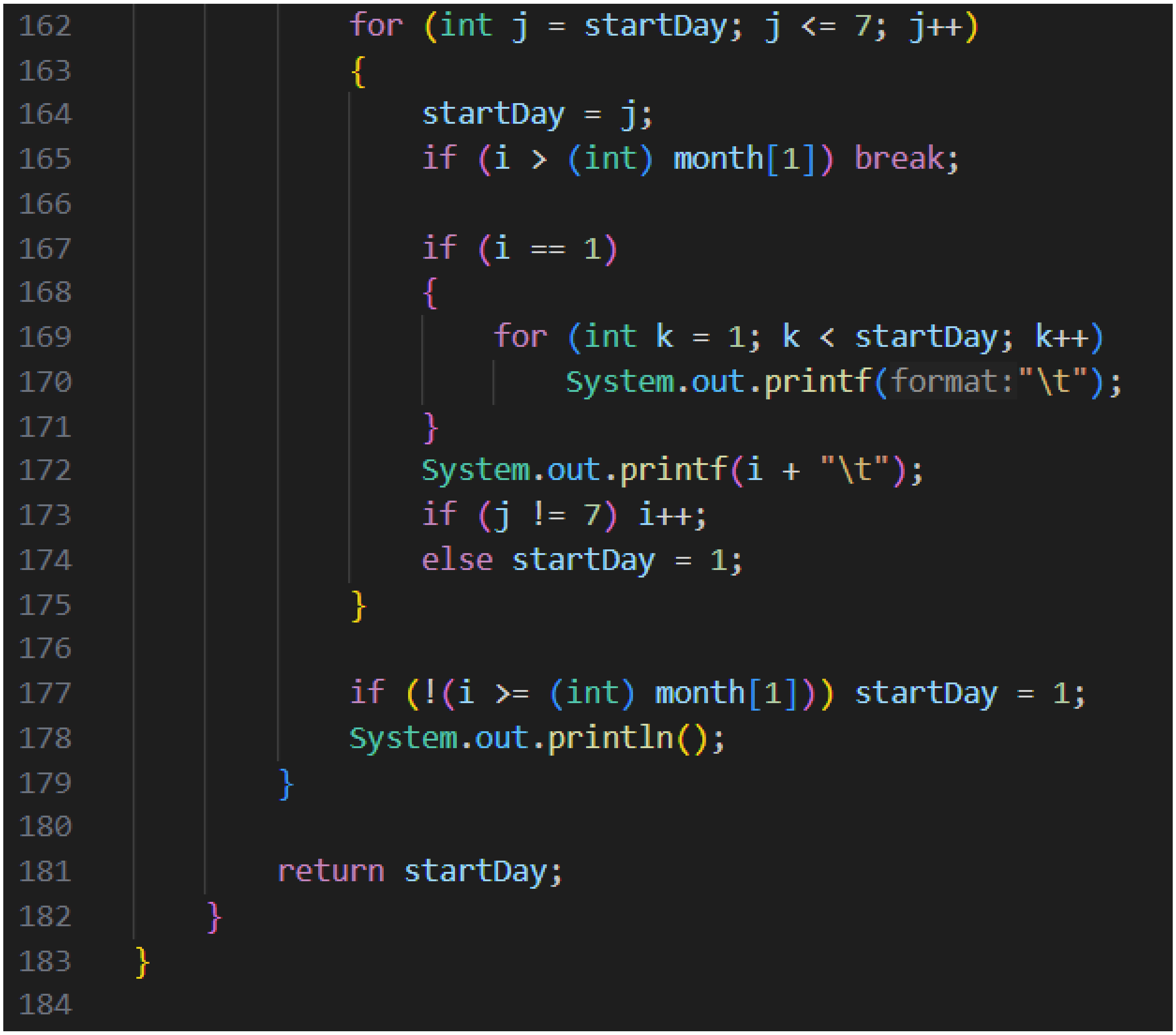
```
        {
            case "MONDAY":
                start = 2;
                break;
            case "TUESDAY":
                start = 3;
                break;
            case "WEDNESDAY":
                start = 4;
                break;
            case "THURSDAY":
                start = 5;
                break;
            case "FRIDAY":
                start = 6;
                break;
            case "SATURDAY":
                start = 7;
                break;
            case "SUNDAY":
                start = 1;
                break;
        }

        for (Object[] i : yearlyM)
        {
            start = printMonth(i, start);
            System.out.println();
        }

        // Part 5: Writing the calendar to a CSV file

        start = Year.now().atDay(dayOfYear:1).getDayOfWeek().getValue() + 1;

        try
        {
            File calendarFile = new File(pathname:"calendar.csv");
            FileWriter calendarWriter = new FileWriter(fileName:"calendar.csv");

            calendarWriter.write(str:"\"Month\"\n");
```



```java

            for (Object[] i : yearlyM)
            {
                calendarWriter.write("\"" + i[0] + "\"\n");

                String daysOfWeek[] = {"Sun", "Mon", "Tue", "Wed", "Thu", "Fri", "Sat"};
                for (String j : daysOfWeek)
                {
                    if (j != "Sat") calendarWriter.write(j + ", ");
                    else calendarWriter.write(j);
                }
                calendarWriter.write(str:"\n");

                for (int j = 1; j <= (int) i[1]; j++)
                {
                    for (int k = start; k <= 7; k++)
                    {
                        start = k;
                        if (j > (int) i[1]) break;

                        if (j == 1)
                        {
                            for (int l = 1; l < start; l++)
                                calendarWriter.write(str:"_, ");
                        }
                        if (k < 7 && j < (int) i[1]) calendarWriter.write(j + ", ");
                        else calendarWriter.write(j + "");
                        if (k != 7) j++;
                        else start = 1;
                    }

                    // if (!(j >= (int) i[1])) start = 1;
                    calendarWriter.write(str:"\n");
                }

                calendarWriter.write(str:"\n_,\n");
            }

            calendarWriter.close();
        }
```

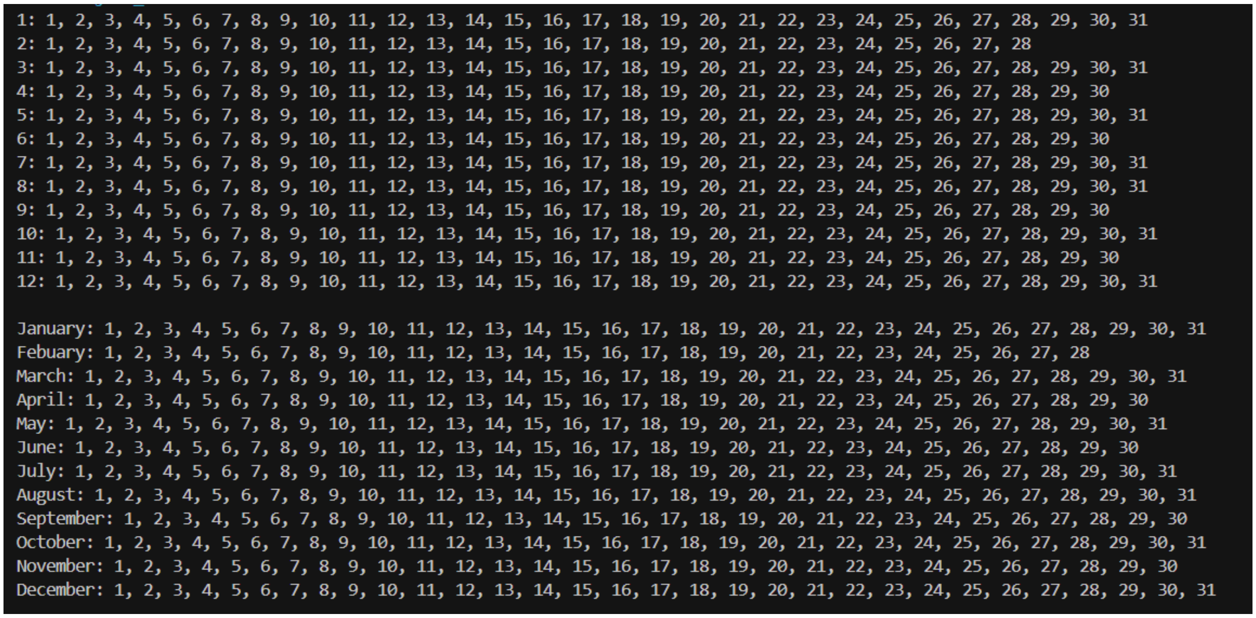


```java
        catch (IOException e)
        {
            System.out.println(x:"An error occurred.");
            e.printStackTrace();
        }
    }

    public static void printCalendar(Object[][] cal)
    {
        for (Object i[] : cal)
        {
            System.out.print(i[0] + ": ");

            for (int j = 1; j <= (int) i[1]; j++)
            {
                if (j != (int) i[1]) System.out.print(j + ", ");
                else System.out.print(j);
            }

            System.out.println();
        }

        System.out.println();
    }

    public static int printMonth(Object[] month, int startDay)
    {
        System.out.println(month[0]);

        String daysOfWeek[] = {"Sun", "Mon", "Tue", "Wed", "Thu", "Fri", "Sat"};

        for (String i : daysOfWeek)
        {
            System.out.printf(i + "\t");
        }

        System.out.println();

        for (int i = 1; i <= (int) month[1]; i++)
        {
```

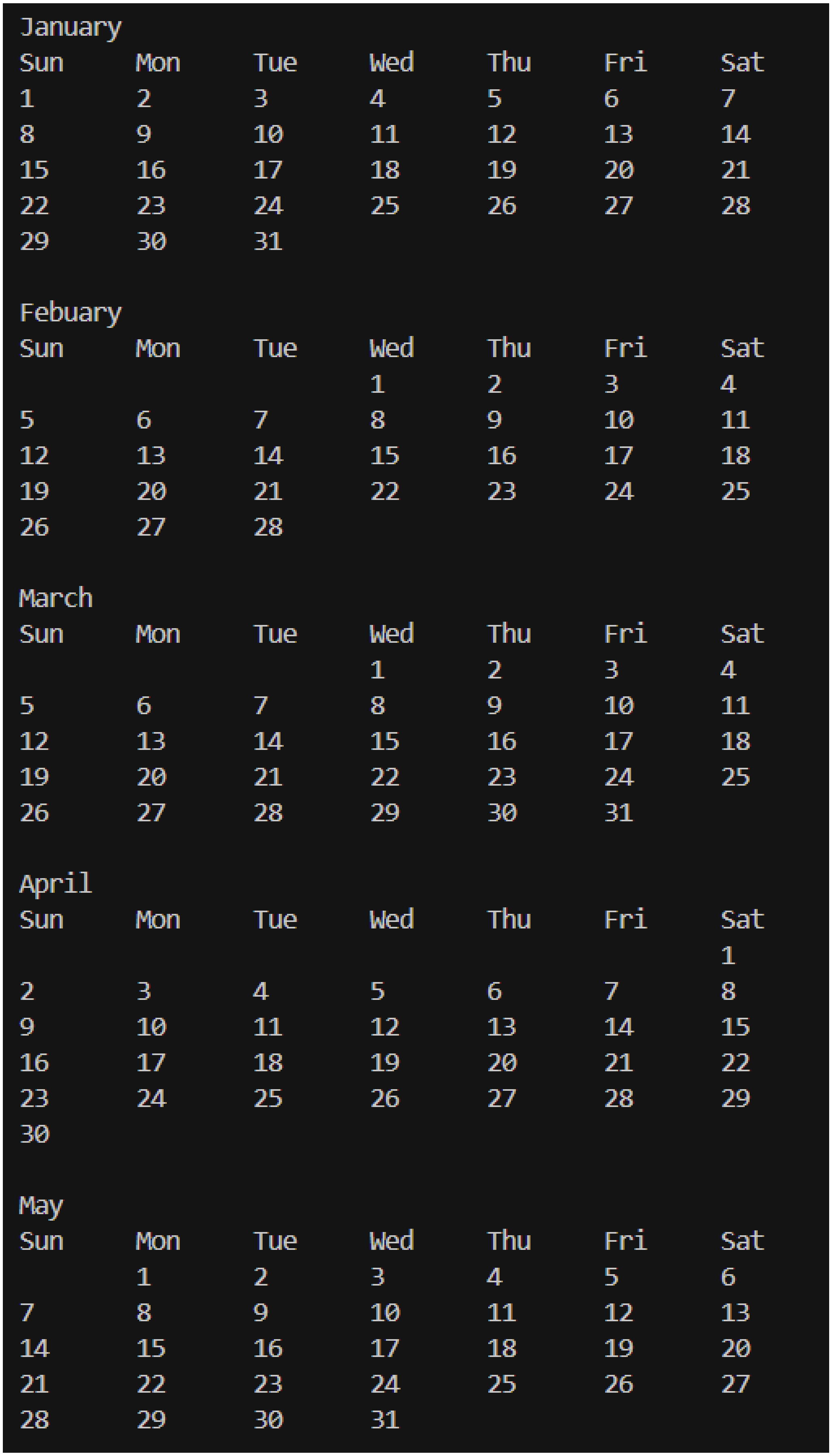


```java
                for (int j = startDay; j <= 7; j++)
                {
                    startDay = j;
                    if (i > (int) month[1]) break;

                    if (i == 1)
                    {
                        for (int k = 1; k < startDay; k++)
                            System.out.printf(format:"\t");
                    }
                    System.out.printf(i + "\t");
                    if (j != 7) i++;
                    else startDay = 1;
                }

                if (!(i >= (int) month[1])) startDay = 1;
                System.out.println();
            }

            return startDay;
        }
    }

```

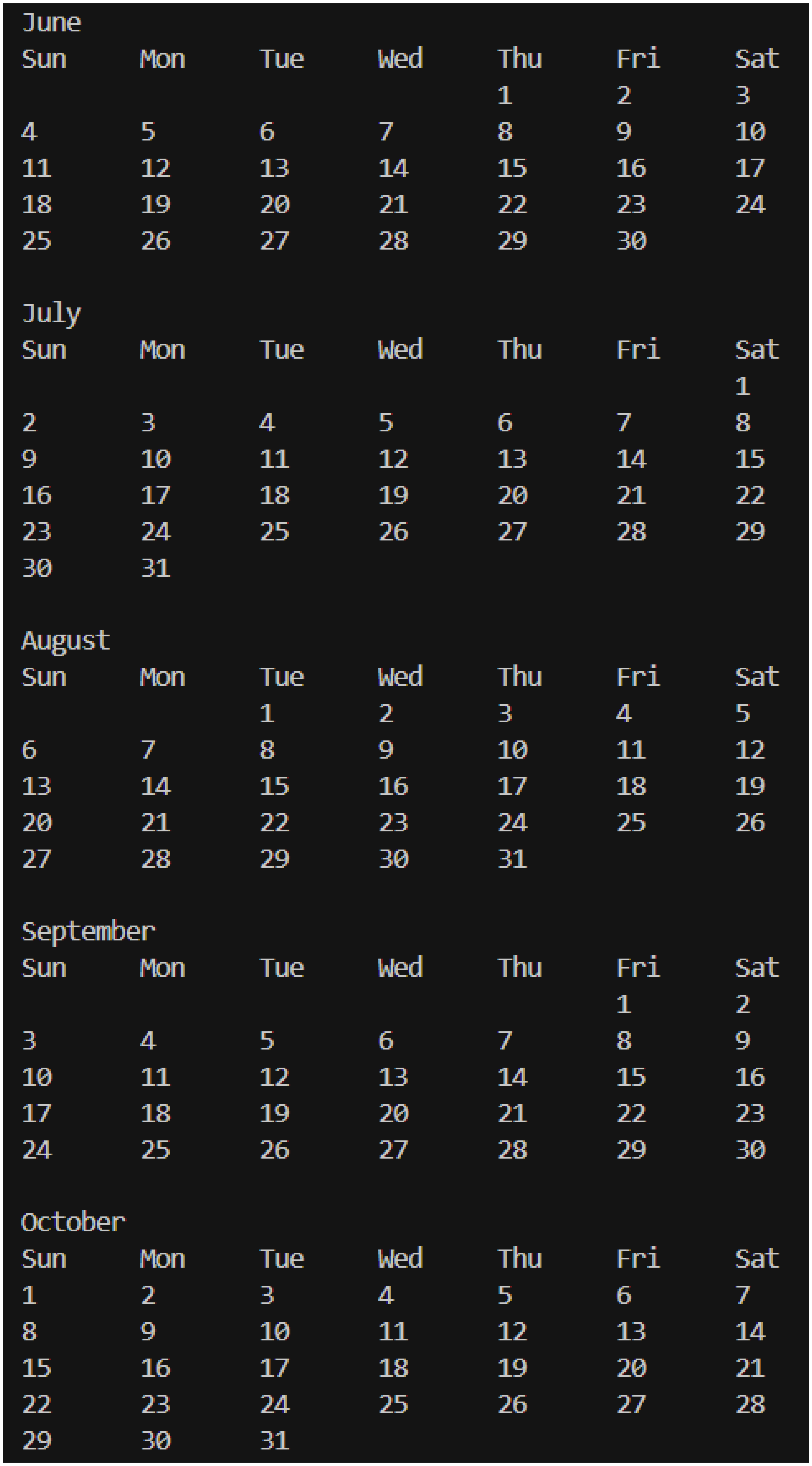
Output Screenshots:



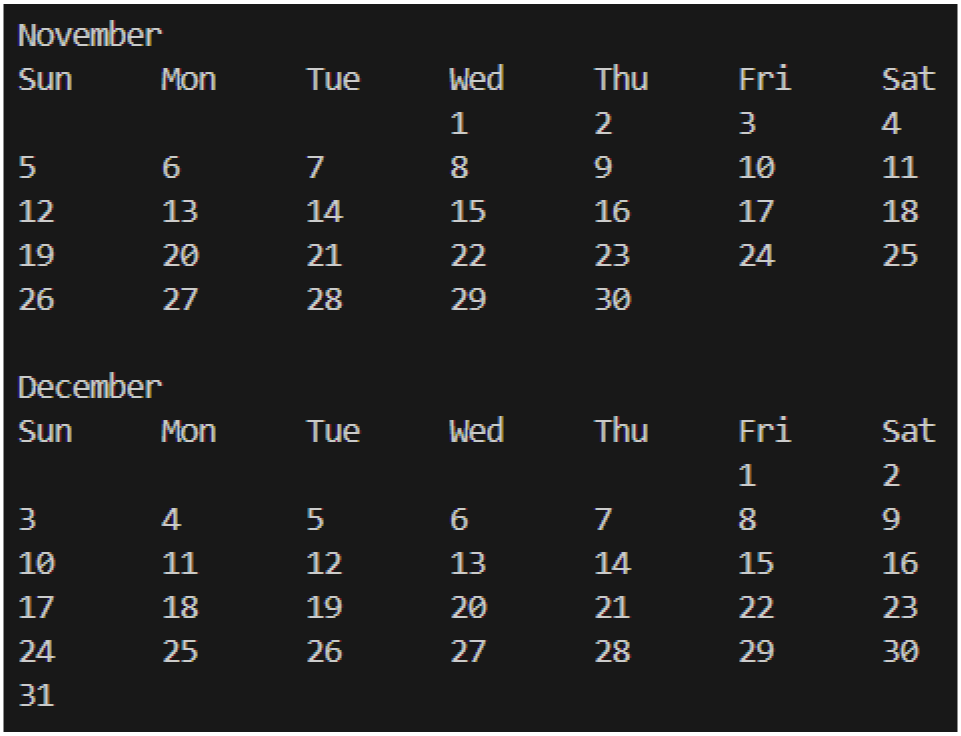
```
1: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31
2: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28
3: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31
4: 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, 29, 30
5: 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, 29, 30, 31
6: 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, 29, 30
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, 29, 30, 31
8: 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, 29, 30, 31
9: 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, 29, 30
10: 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, 29, 30, 31
11: 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, 29, 30
12: 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, 29, 30, 31

January: 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, 29, 30, 31
Febuary: 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
March: 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, 29, 30, 31
April: 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, 29, 30
May: 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, 29, 30, 31
June: 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, 29, 30
July: 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, 29, 30, 31
August: 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, 29, 30, 31
September: 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, 29, 30
October: 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, 29, 30, 31
November: 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, 29, 30
December: 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, 29, 30, 31
```



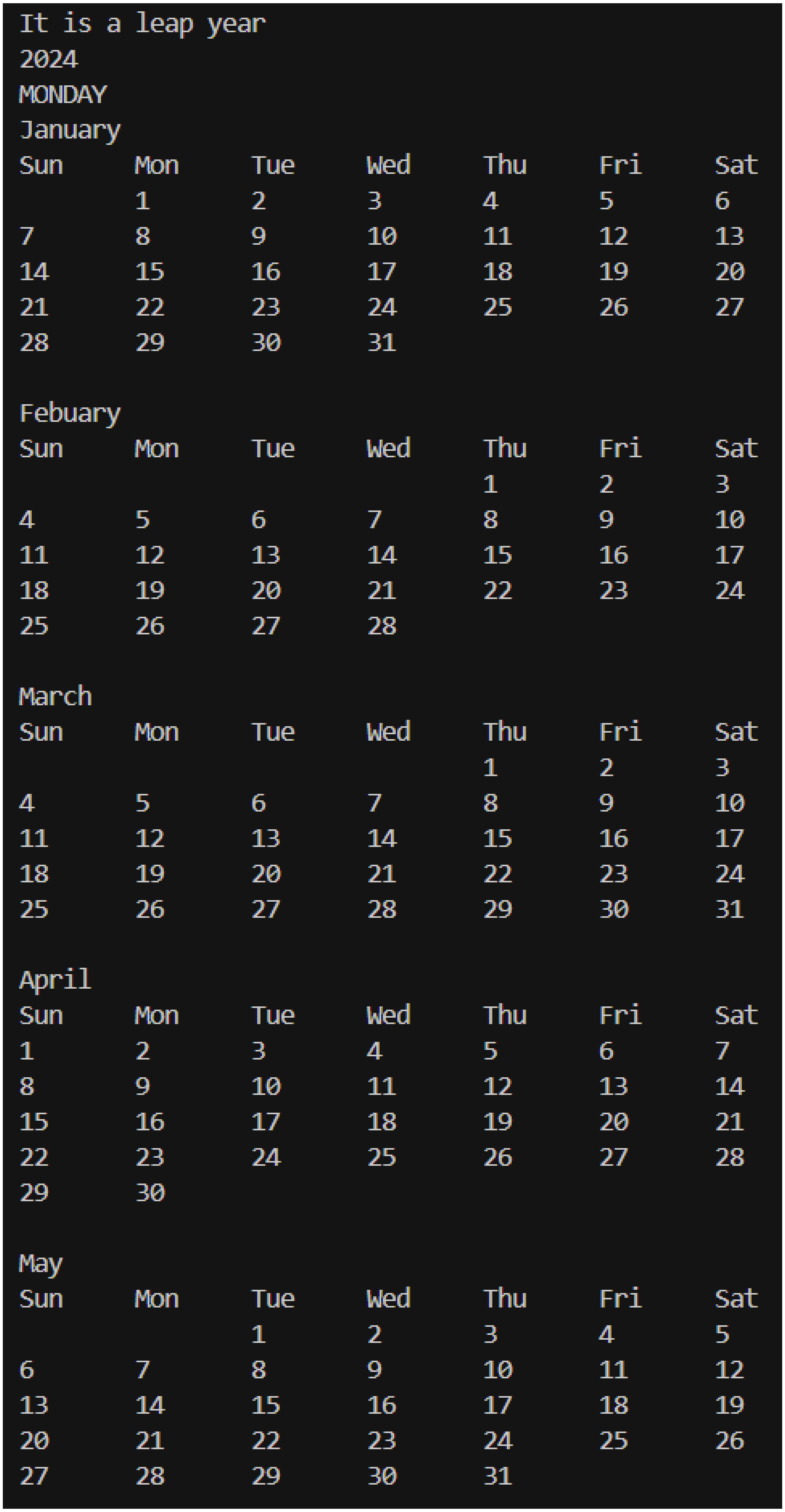
```
January
Sun     Mon     Tue     Wed     Thu     Fri     Sat
1       2       3       4       5       6       7
8       9       10      11      12      13      14
15      16      17      18      19      20      21
22      23      24      25      26      27      28
29      30      31

Febuary
Sun     Mon     Tue     Wed     Thu     Fri     Sat
                        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

March
Sun     Mon     Tue     Wed     Thu     Fri     Sat
                        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      29      30      31

April
Sun     Mon     Tue     Wed     Thu     Fri     Sat
                                                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      29
30

May
Sun     Mon     Tue     Wed     Thu     Fri     Sat
        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      29      30      31
```



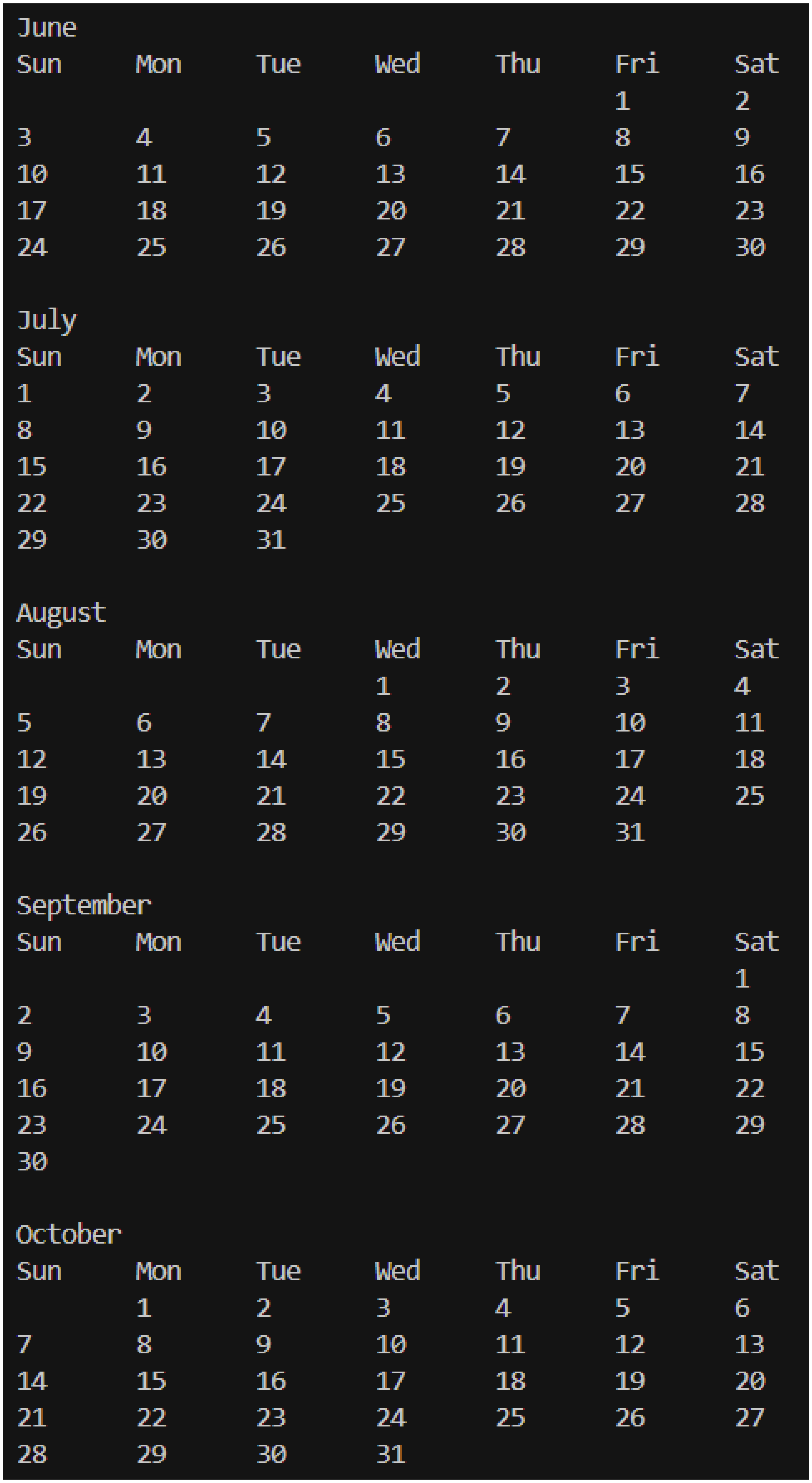
```
June
Sun     Mon     Tue     Wed     Thu     Fri     Sat
                                1       2       3
4       5       6       7       8       9       10
11      12      13      14      15      16      17
18      19      20      21      22      23      24
25      26      27      28      29      30

July
Sun     Mon     Tue     Wed     Thu     Fri     Sat
                                                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      29
30      31

August
Sun     Mon     Tue     Wed     Thu     Fri     Sat
                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      29      30      31

September
Sun     Mon     Tue     Wed     Thu     Fri     Sat
                                        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      29      30

October
Sun     Mon     Tue     Wed     Thu     Fri     Sat
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
29      30      31
```



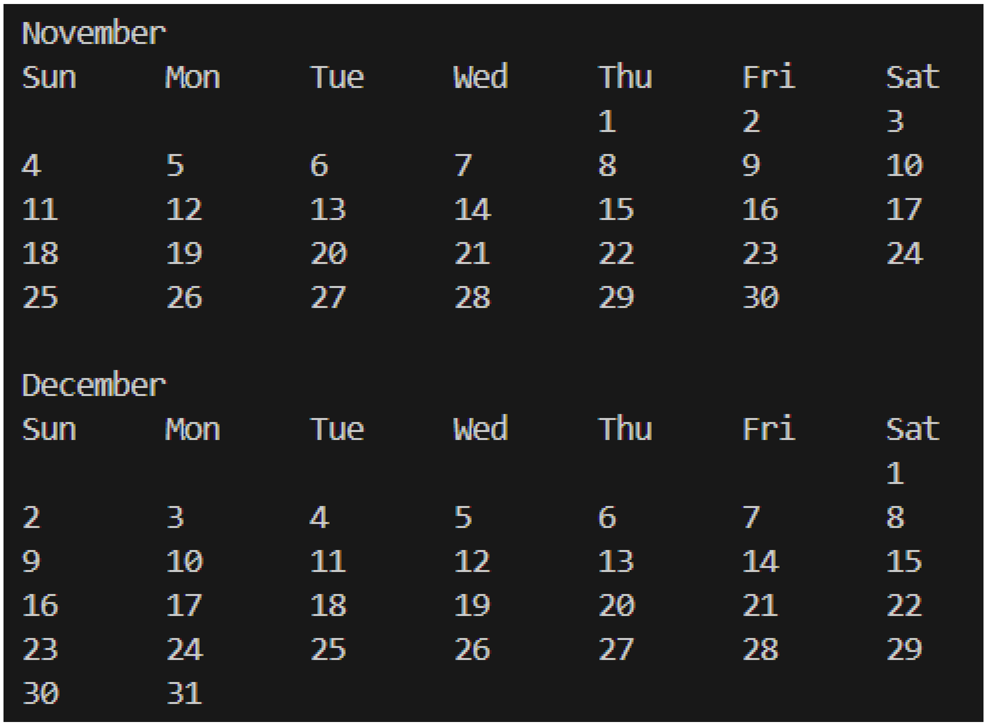
```
November
Sun     Mon     Tue     Wed     Thu     Fri     Sat
                        1       2       3       4
5       6       7       8       9       10      11
12      13      14      15      16      17      18
19      20      21      22      23      24      25
26      27      28      29      30

December
Sun     Mon     Tue     Wed     Thu     Fri     Sat
                                        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      29      30
31
```



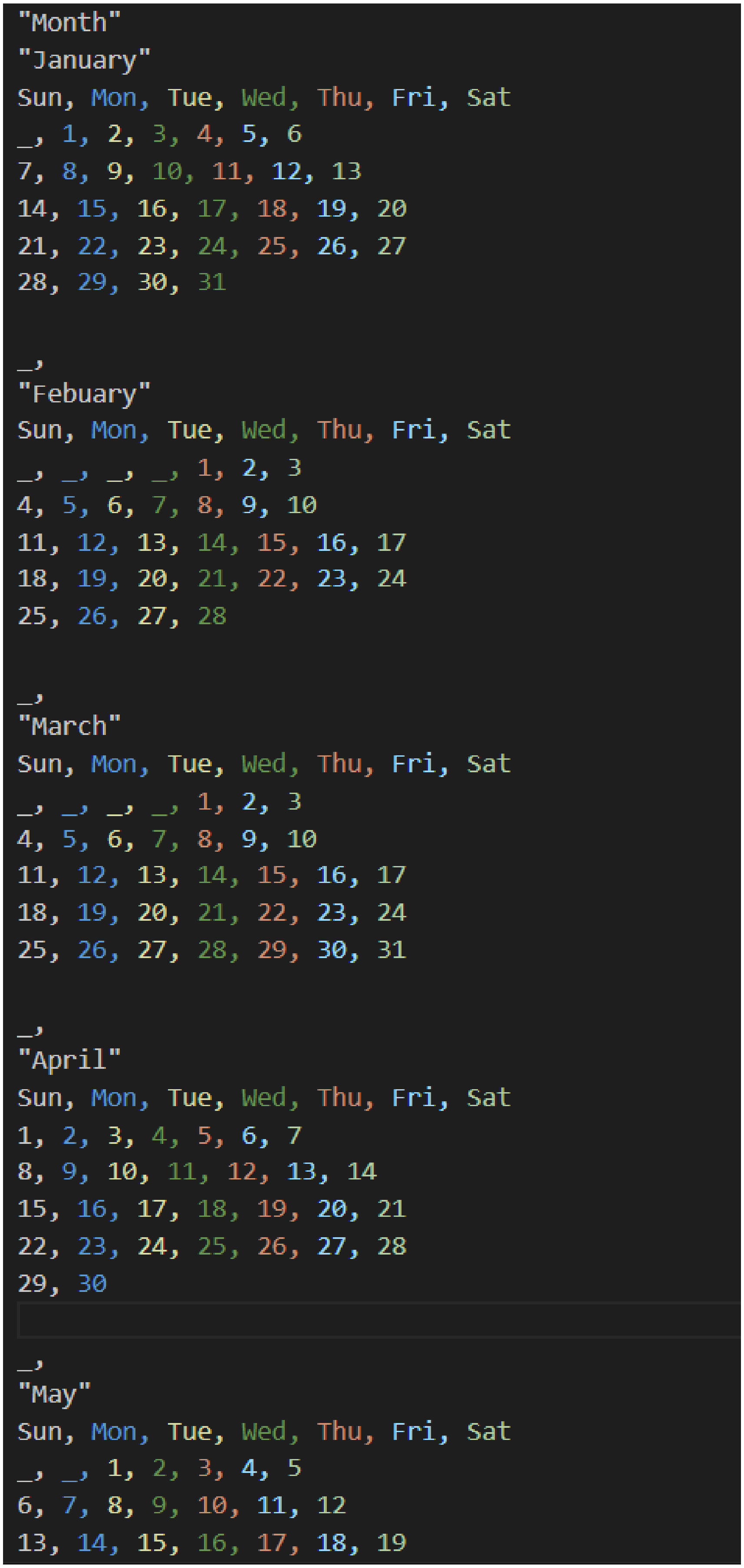
```
It is a leap year
2024
MONDAY
January
Sun     Mon     Tue     Wed     Thu     Fri     Sat
        1       2       3       4       5       6
7       8       9       10      11      12      13
14      15      16      17      18      19      20
21      22      23      24      25      26      27
28      29      30      31

Febuary
Sun     Mon     Tue     Wed     Thu     Fri     Sat
                                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

March
Sun     Mon     Tue     Wed     Thu     Fri     Sat
                                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      29      30      31

April
Sun     Mon     Tue     Wed     Thu     Fri     Sat
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
29      30

May
Sun     Mon     Tue     Wed     Thu     Fri     Sat
                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      29      30      31
```



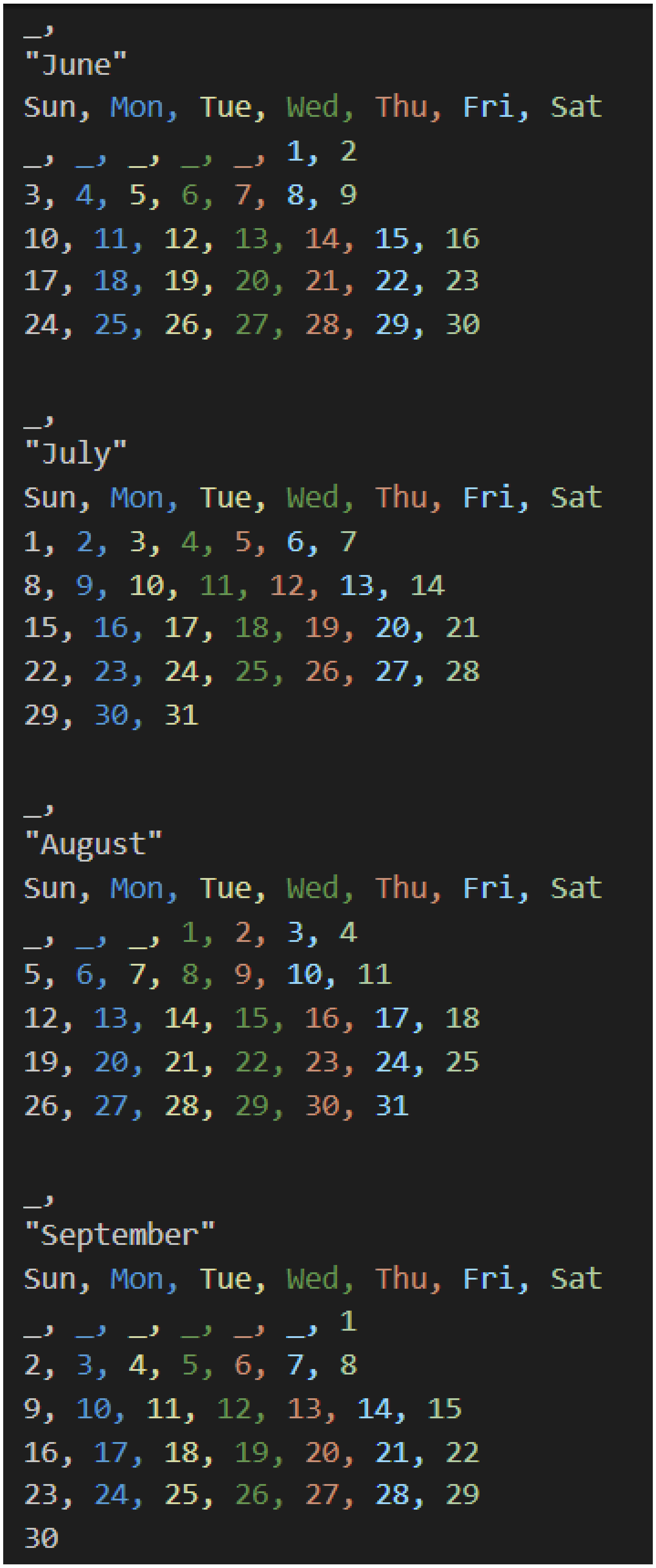
```
June
Sun     Mon     Tue     Wed     Thu     Fri     Sat
                                        1       2
3       4       5       6       7       8       9
10      11      12      13      14      15      16
17      18      19      20      21      22      23
24      25      26      27      28      29      30

July
Sun     Mon     Tue     Wed     Thu     Fri     Sat
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
29      30      31

August
Sun     Mon     Tue     Wed     Thu     Fri     Sat
                        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      29      30      31

September
Sun     Mon     Tue     Wed     Thu     Fri     Sat
                                                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      29
30

October
Sun     Mon     Tue     Wed     Thu     Fri     Sat
        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      29      30      31
```



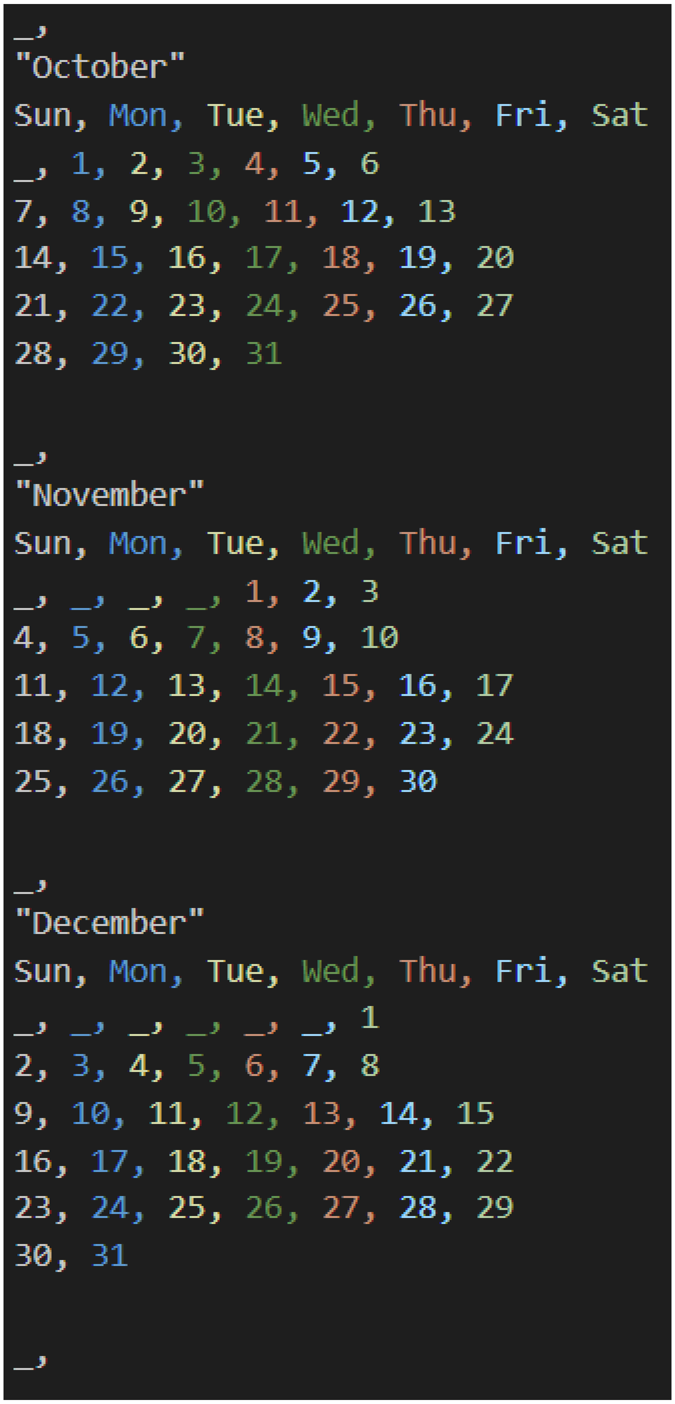
```
November
Sun     Mon     Tue     Wed     Thu     Fri     Sat
                                1       2       3
4       5       6       7       8       9       10
11      12      13      14      15      16      17
18      19      20      21      22      23      24
25      26      27      28      29      30

December
Sun     Mon     Tue     Wed     Thu     Fri     Sat
                                                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      29
30      31
```



```
"Month"
"January"
Sun, Mon, Tue, Wed, Thu, Fri, Sat
_, 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, 29, 30, 31


_,
"Febuary"
Sun, Mon, Tue, Wed, Thu, Fri, Sat
_, _, _, _, 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


_,
"March"
Sun, Mon, Tue, Wed, Thu, Fri, Sat
_, _, _, _, 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, 29, 30, 31


_,
"April"
Sun, Mon, Tue, Wed, Thu, Fri, Sat
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
29, 30


_,
"May"
Sun, Mon, Tue, Wed, Thu, Fri, Sat
_, _, 1, 2, 3, 4, 5
6, 7, 8, 9, 10, 11, 12
13, 14, 15, 16, 17, 18, 19
```

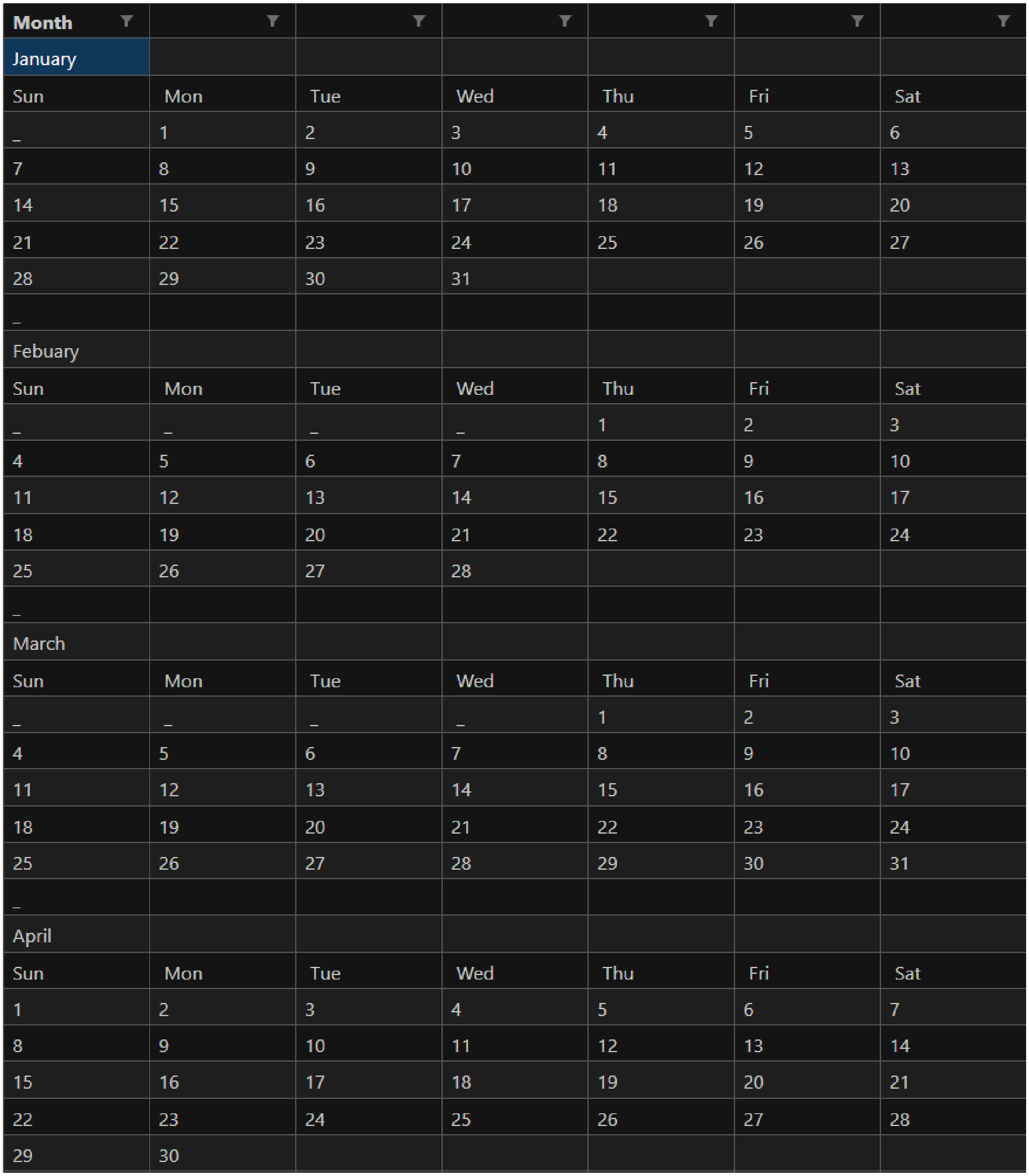


```
_,
"June"
Sun, Mon, Tue, Wed, Thu, Fri, Sat
_, _, _, _, _, 1, 2
3, 4, 5, 6, 7, 8, 9
10, 11, 12, 13, 14, 15, 16
17, 18, 19, 20, 21, 22, 23
24, 25, 26, 27, 28, 29, 30


_,
"July"
Sun, Mon, Tue, Wed, Thu, Fri, Sat
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
29, 30, 31


_,
"August"
Sun, Mon, Tue, Wed, Thu, Fri, Sat
_, _, _, 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, 29, 30, 31


_,
"September"
Sun, Mon, Tue, Wed, Thu, Fri, Sat
_, _, _, _, _, _, 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, 29
30
```

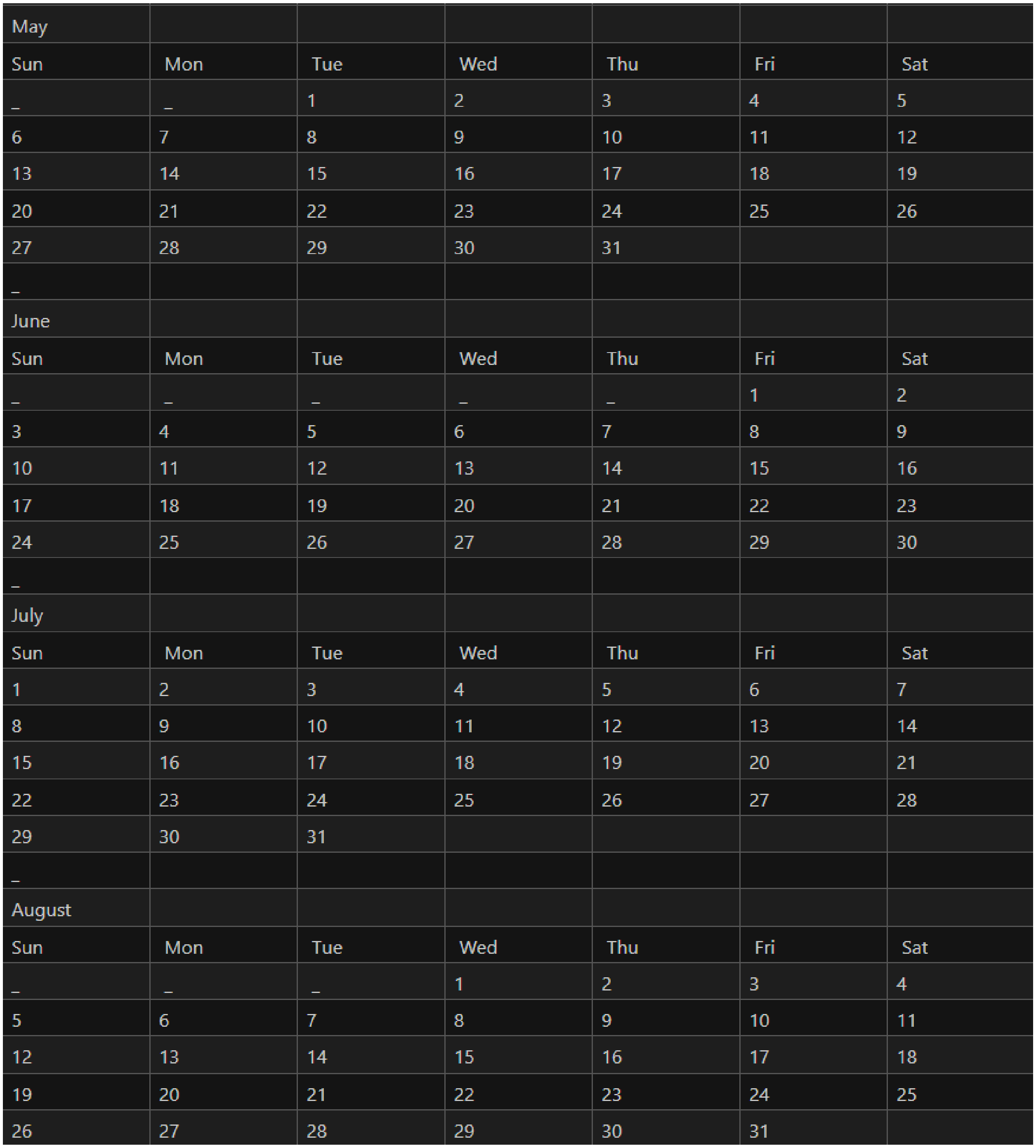


```
_,
"October"
Sun, Mon, Tue, Wed, Thu, Fri, Sat
_, 1, 2, 3, 4, 5, 6
7, 8, 9, 10, 11, 12, 13
14, 15, 16, 17, 18, 19, 20
21, 22, 23, 24, 25, 26, 27
28, 29, 30, 31

_,
"November"
Sun, Mon, Tue, Wed, Thu, Fri, Sat
_, _, _, _, 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, 29, 30

_,
"December"
Sun, Mon, Tue, Wed, Thu, Fri, Sat
_, _, _, _, _, _, 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, 29
30, 31

_,
```

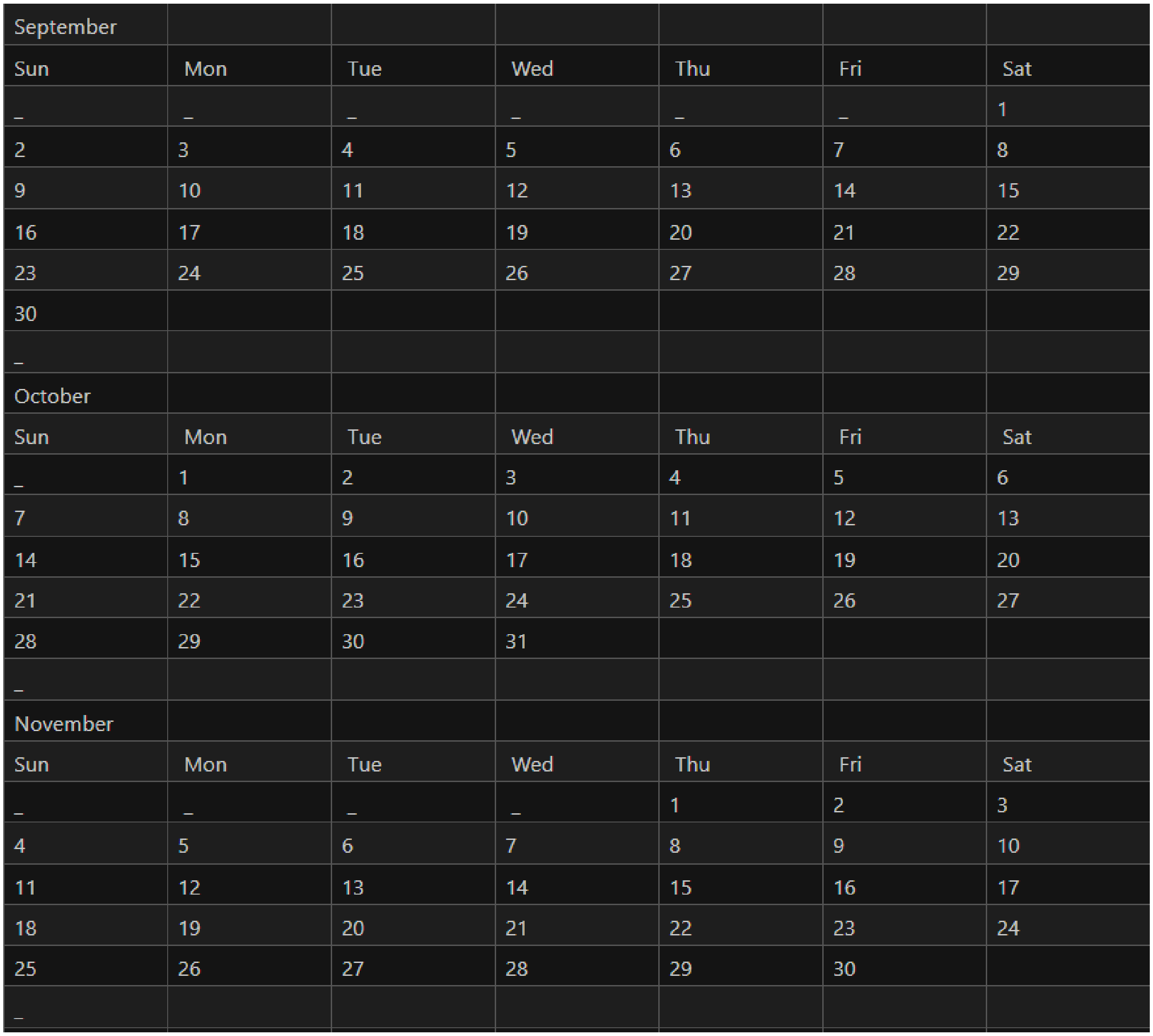
CSV Viewer Output:



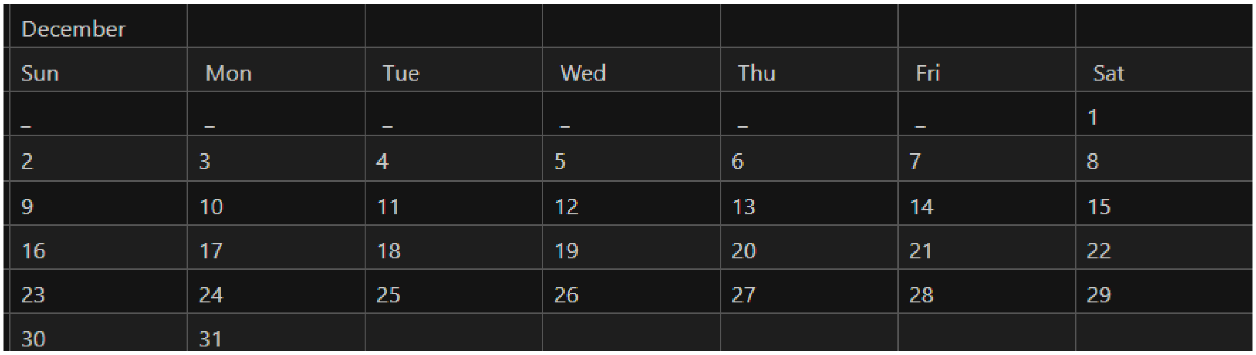
Month						
January						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
_	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			
_						
Febuary						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
_	_	_	_	1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28			
_						
March						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
_	_	_	_	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	29	30	31
_						
April						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
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
29	30					



May						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
_	_	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	29	30	31		
_						
June						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
_	_	_	_	_	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	29	30
_						
July						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
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
29	30	31				
_						
August						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
_	_	_	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	29	30	31	



September						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
_	_	_	_	_	_	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	29
30						
_						
October						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
_	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	29	30	31			
_						
November						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
_	_	_	_	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	29	30	
_						



December						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
_	_	_	_	_	_	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	29
30	31					

Testing: I test this program by running it and walking through the code, seeing how each line works. Furthermore, I was able to use a debugger with the code editor I used (Visual Studio Code) that allowed me to go through the code line by line the way it executes, checking variable values and seeing if anything goes wrong and how. I also make sure to comment out previous lines when I test one so I don't have to test unnecessary code.

Code:

```
import java.time.Year;
import java.io.File;
import java.io.FileWriter;
import java.io.IOException;

public class Main
{
    public static void main(String[] args)
    {
        // Part 1: Display month loop
        Object yearly[][] = {{1,31},{2,28},{3,31},{4,30},{5,31},{6,30},{7,31},
            {8,31},{9,30},{10,31},{11,30},{12,31}};

        printCalendar(yearly);

        // Part 2: Display month loop with names
        Object yearlyM[][] = {{"January",31},{"Febuary",28},{"March",31},
            {"April",30},{"May",31},{"June",30},{"July",31},{"August",31},
            {"September",30},{"October",31},{"November",30},{"December",31}};

        printCalendar(yearlyM);

        // Part 3: Format and display weekly output
        int start = 1;

        for (Object[] i : yearlyM)
        {
            start = printMonth(i, start);
            System.out.println();
        }

        // Part 4: Getting current year and getting correct day to start the
year and displaying the calendar again with the correct
        // start day for this year and checking leap year
        int year = Year.now().getValue();
        boolean isLeap = Year.now().isLeap();
        if (isLeap) System.out.println("It is a leap year");
        else System.out.println("It is not a leap year");
        System.out.println(year);

        String firstDay = Year.now().atDay(1).getDayOfWeek().name();
        System.out.println(firstDay);

        switch (firstDay)
        {
            case "MONDAY":
                start = 2;
                break;
            case "TUESDAY":
                start = 3;
                break;
            case "WEDNESDAY":
                start = 4;
                break;
            case "THURSDAY":
                start = 5;
                break;
            case "FRIDAY":
                start = 6;
                break;
            case "SATURDAY":
                start = 7;
                break;
            case "SUNDAY":
                start = 1;
                break;
        }

        for (Object[] i : yearlyM)
        {
            start = printMonth(i, start);
            System.out.println();
        }

        // Part 5: Writing the calendar to a CSV file

        start = Year.now().atDay(1).getDayOfWeek().getValue() + 1;

        try
        {
            File calendarFile = new File("calendar.csv");
            FileWriter calendarWriter = new FileWriter("calendar.csv");

            calendarWriter.write("\"Month\"\n");

            for (Object[] i : yearlyM)
            {
                calendarWriter.write("\"" + i[0] + "\"\n");

                String daysOfWeek[] = {"Sun", "Mon", "Tue", "Wed", "Thu",
"Fri", "Sat"};
```

```
                for (String j : daysOfWeek)
                {
                    if (j != "Sat") calendarWriter.write(j + ", ");
                    else calendarWriter.write(j);
                }
                calendarWriter.write("\n");

                for (int j = 1; j <= (int) i[1]; j++)
                {
                    for (int k = start; k <= 7; k++)
                    {
                        start = k;
                        if (j > (int) i[1]) break;

                        if (j == 1)
                        {
                            for (int l = 1; l < start; l++)
                                calendarWriter.write("_, ");
                        }
                        if (k < 7 && j < (int) i[1]) calendarWriter.write(j +
", ");
                        else calendarWriter.write(j + "");
                        if (k != 7) j++;
                        else start = 1;
                    }

                    // if (!(j >= (int) i[1])) start = 1;
                    calendarWriter.write("\n");
                }

                calendarWriter.write("\n_,\n");
            }

            calendarWriter.close();
        }
        catch (IOException e)
        {
            System.out.println("An error occurred.");
            e.printStackTrace();
        }
    }

    public static void printCalendar(Object[][] cal)
    {
        for (Object i[] : cal)
        {
            System.out.print(i[0] + ": ");
            for (int j = 1; j <= (int) i[1]; j++)
            {
                if (j != (int) i[1]) System.out.print(j + ", ");
                else System.out.print(j);
            }

            System.out.println();
        }

        System.out.println();
    }

    public static int printMonth(Object[] month, int startDay)
    {
        System.out.println(month[0]);

        String daysOfWeek[] = {"Sun", "Mon", "Tue", "Wed", "Thu", "Fri",
"Sat"};

        for (String i : daysOfWeek)
        {
            System.out.printf(i + "\t");
        }

        System.out.println();

        for (int i = 1; i <= (int) month[1]; i++)
        {
            for (int j = startDay; j <= 7; j++)
            {
                startDay = j;
                if (i > (int) month[1]) break;

                if (i == 1)
                {
                    for (int k = 1; k < startDay; k++)
                        System.out.printf("\t");
                }
                System.out.printf(i + "\t");
                if (j != 7) i++;
                else startDay = 1;
            }

            if (!(i >= (int) month[1])) startDay = 1;
            System.out.println();
        }
        return startDay;
    }
}
```