ACKNOWLEDGEMENT

We would like to express our sincere gratitude to our Computer Science professor Mrs. Nidhi Chauhan for letting us take upon this project and providing us with valuable guidance throughout our project – THE GAME OF DAYS. We would also like to thank my friends and family for their endless support without which we could not have completed this work on time.

INDEX

About → The game of days

This is a project we made involving the days of the year

One of the options helps us to print the calendar of a desired month of the specified year.

While another helps us to find out the day on any specified date.

Brief explanation: -

- For the generating the calendar, we take the reference of Gregorian calendar as its 1st January is Monday.

- January has 31 = 7 × 4 + 3 days, so 1 February (7*4) will fall on the day which follows three days after 1 January . Similarly, 1 March (7*4+3) will fall on the day three days after the day corresponding to January 1, April 1 will fall 6 days after, and so on.

- Thus, the first days of each month are offset with respect to 1 January by the array

{0, 3, 3, 6, 1, 4, 6, 2, 5, 0, 3, 5}.

After this array the calculation would be like that: -

```
int days (int y, int m, int d)
{
        static int t [] = {0, 3, 3, 6, 1, 4, 6, 2, 5, 0, 3, 5};
        return (y + t[m-1] + d) % 7;
}
```

Where, d is the day of the given month(m) and y is the difference of the given year with the Gregorian year which is same as the input year.

- But this calculation is incomplete as there is no contribution of the leap year.

- In a simple year there are 365(7*52 + 1) days and this one day will change the day of the particular date

for example: if the day of 14th July, 2015 is Monday then there will be Tuesday on 14th July, 2016 and we have to find these extra number of days which is equal to the difference of the given year with the reference year

- But, if we see a leap year there are 366(7*52 + 2) days and they will add up an extra day after every 4 years.

So, we have to find the number of leap days also.

- For this, we have to do a calculation which is:

y/4 – y/100 + y/400

- And this calculation will add up number of leap day in the difference of the given year in the reference year

(as the y/4 will give the number of leap years from the reference year to the given year but it will add up the non-leap years of century also so we have to subtract y/100 and this action we eliminate the leap years which are divisible by 400 so we have to add y/400)

- In a leap the extra will add up after the month of February so to perform the same algorithm of the month of the February and January we will subtract 1 from the given year (y -= m < 3) but We are subtracting 1 from the year for January and February for non-leap years too.

- This means that there would be a "blank" day between February 28 and March 1, that is, we have made every non-leap year a leap year, and leap years double-leap years.

- If we subtract 1 from the t [] values of every month after February, that would fill the gap, and the leap year problem is solved.

- That is, we need to make the following changes:

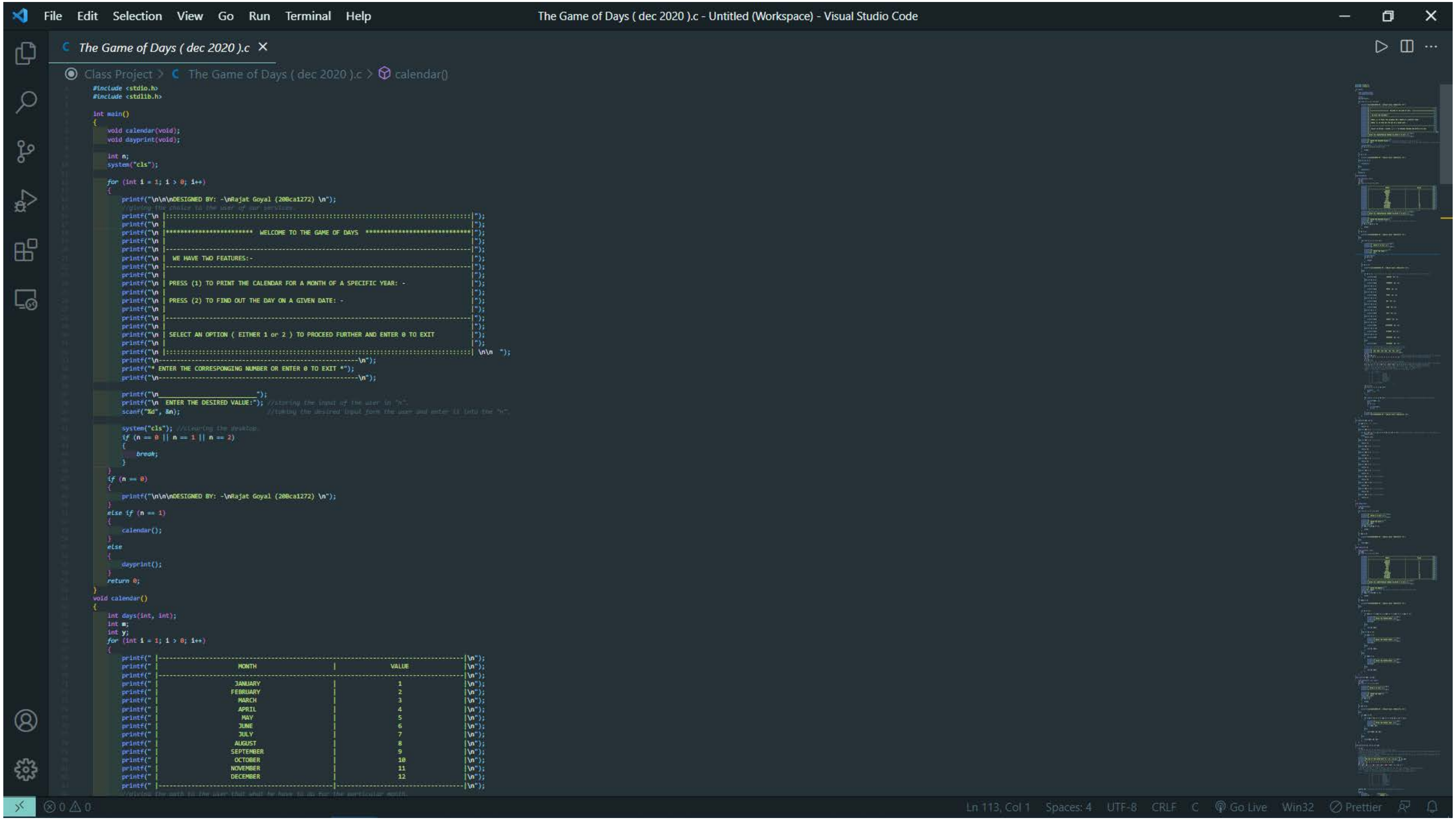
t [] now becomes {0, 3, 2, 5, 0, 3, 5, 1, 4, 6, 2, 4}

- So our full solution would be:

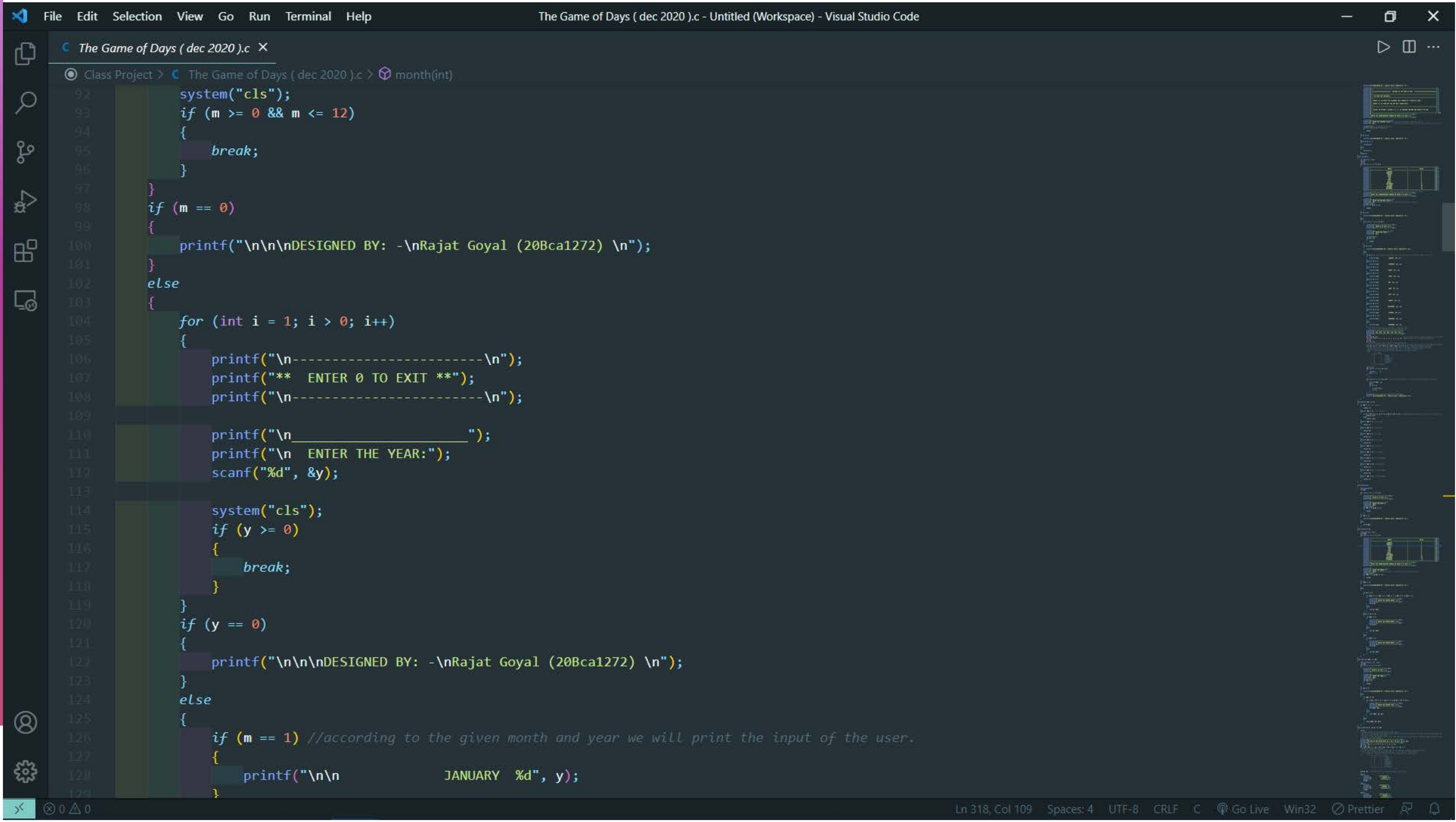
```
int days (int y, int m, int d)
{
        static int t [] = {0, 3, 2, 5, 0, 3, 5, 1, 4, 6, 2, 4};
        y -= m < 3;
        return (y + y/4 - y/100 + y/400 + t[m-1] + d) % 7;
}
```

DAY CODE	DAY
0	SUNDAY
1	MONDAY
2	TUESDAY
3	WEDNESDAY
4	THURSDAY
5	FRIDAY
6	SATURDAY

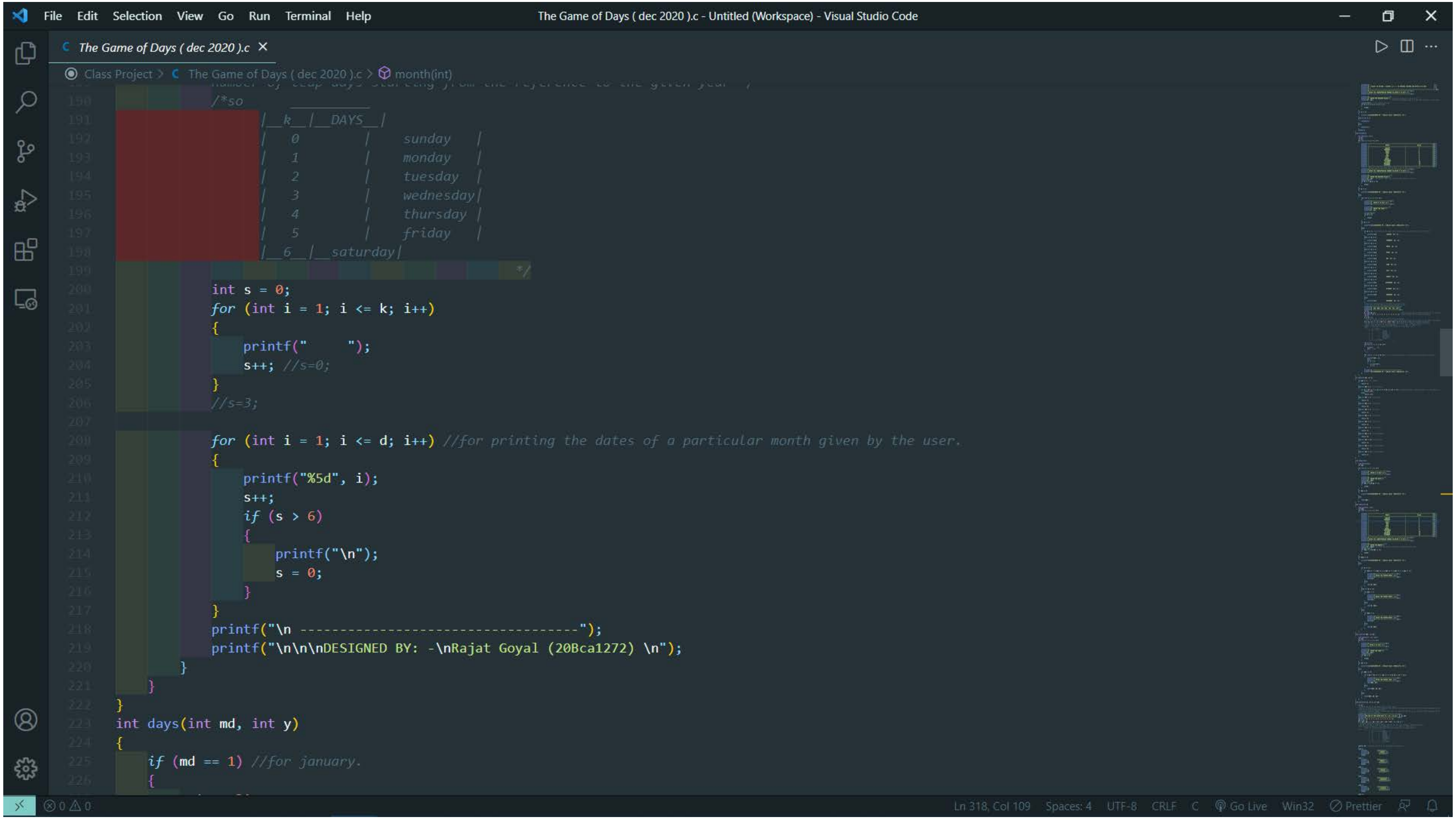
CODE :-


File Edit Selection View Go Run Terminal Help
The Game of Days (dec 2020).c - Untitled (Workspace) - Visual Studio Code
The Game of Days (dec 2020).c
Class Project > The Game of Days (dec 2020).c > calendar()
0 0
Ln 113, Col 1 Spaces: 4 UTF-8 CRLF C Go Live Win32 Prettier

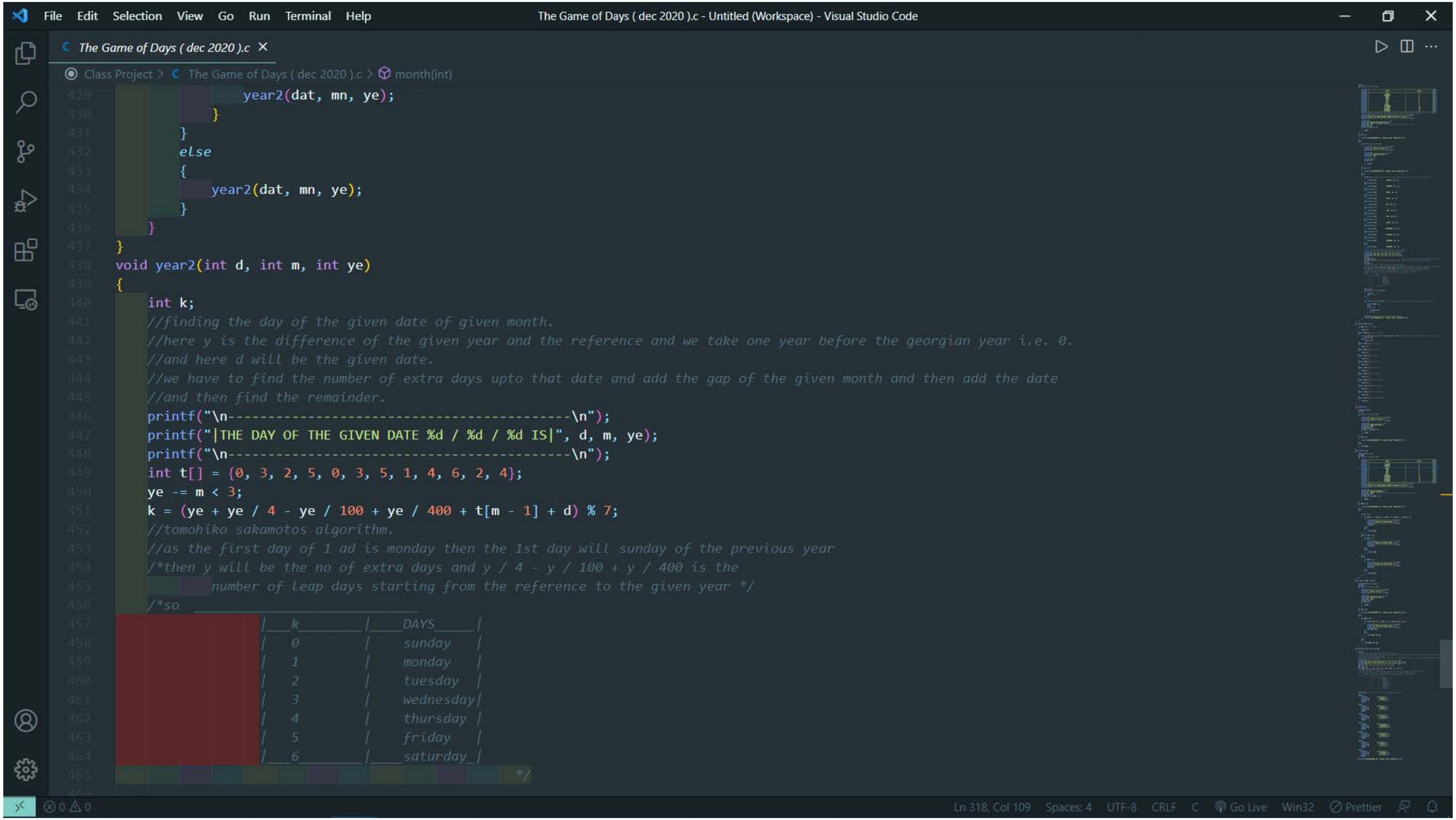
```c
#include <stdio.h>
#include <stdlib.h>

int main()
{
    void calendar(void);
    void dayprint(void);

    int n;
    system("cls");

    for (int i = 1; i > 0; i++)
    {
        printf("\n\n\nDESIGNED BY: -\nRajat Goyal (200ca1272) \n");
        //giving the choice to the user of our services.
        printf("\n |::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::|");
        printf("\n |                                                                                     |");
        printf("\n |***********************  WELCOME TO THE GAME OF DAYS  ****************************|");
        printf("\n |                                                                                     |");
        printf("\n |-------------------------------------------------------------------------------------|");
        printf("\n |  WE HAVE TWO FEATURES:-                                                            |");
        printf("\n |-------------------------------------------------------------------------------------|");
        printf("\n |                                                                                     |");
        printf("\n | PRESS (1) TO PRINT THE CALENDAR FOR A MONTH OF A SPECIFIC YEAR: -                  |");
        printf("\n |                                                                                     |");
        printf("\n | PRESS (2) TO FIND OUT THE DAY ON A GIVEN DATE: -                                   |");
        printf("\n |                                                                                     |");
        printf("\n |-------------------------------------------------------------------------------------|");
        printf("\n |                                                                                     |");
        printf("\n | SELECT AN OPTION ( EITHER 1 or 2 ) TO PROCEED FURTHER AND ENTER 0 TO EXIT         |");
        printf("\n |                                                                                     |");
        printf("\n |::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::| \n\n  ");
        printf("\n-----------------------------------------------------\n");
        printf("* ENTER THE CORRESPONGING NUMBER OR ENTER 0 TO EXIT *");
        printf("\n-----------------------------------------------------\n");

        printf("\n__________________________");
        printf("\n  ENTER THE DESIRED VALUE:"); //storing the input of the user in "n".
        scanf("%d", &n);                      //taking the desired input form the user and enter it into the "n".

        system("cls"); //clearing the desktop.
        if (n == 0 || n == 1 || n == 2)
        {
            break;
        }
    }
    if (n == 0)
    {
        printf("\n\n\nDESIGNED BY: -\nRajat Goyal (200ca1272) \n");
    }
    else if (n == 1)
    {
        calendar();
    }
    else
    {
        dayprint();
    }
    return 0;
}
void calendar()
{
    int days(int, int);
    int m;
    int y;
    for (int i = 1; i > 0; i++)
    {
        printf(" |----------------------------------------------------------------------------------|\n");
        printf(" |                      MONTH                   |                 VALUE              |\n");
        printf(" |----------------------------------------------------------------------------------|\n");
        printf(" |                     JANUARY                  |                   1                |\n");
        printf(" |                    FEBRUARY                  |                   2                |\n");
        printf(" |                      MARCH                   |                   3                |\n");
        printf(" |                      APRIL                   |                   4                |\n");
        printf(" |                       MAY                    |                   5                |\n");
        printf(" |                      JUNE                    |                   6                |\n");
        printf(" |                      JULY                    |                   7                |\n");
        printf(" |                     AUGUST                   |                   8                |\n");
        printf(" |                    SEPTEMBER                 |                   9                |\n");
        printf(" |                     OCTOBER                  |                   10               |\n");
        printf(" |                    NOVEMBER                  |                   11               |\n");
        printf(" |                    DECEMBER                  |                   12               |\n");
        printf(" |----------------------------------------------|-----------------------------------|\n");
        //giving the path to the user that what he have to do for the particular month.
```


File
Edit
Selection
View
Go
Run
Terminal
Help
The Game of Days (dec 2020).c - Untitled (Workspace) - Visual Studio Code
The Game of Days (dec 2020).c
Class Project > The Game of Days (dec 2020).c > month(int)
0 0
Ln 318, Col 109
Spaces: 4
UTF-8
CRLF
C
Go Live
Win32
Prettier

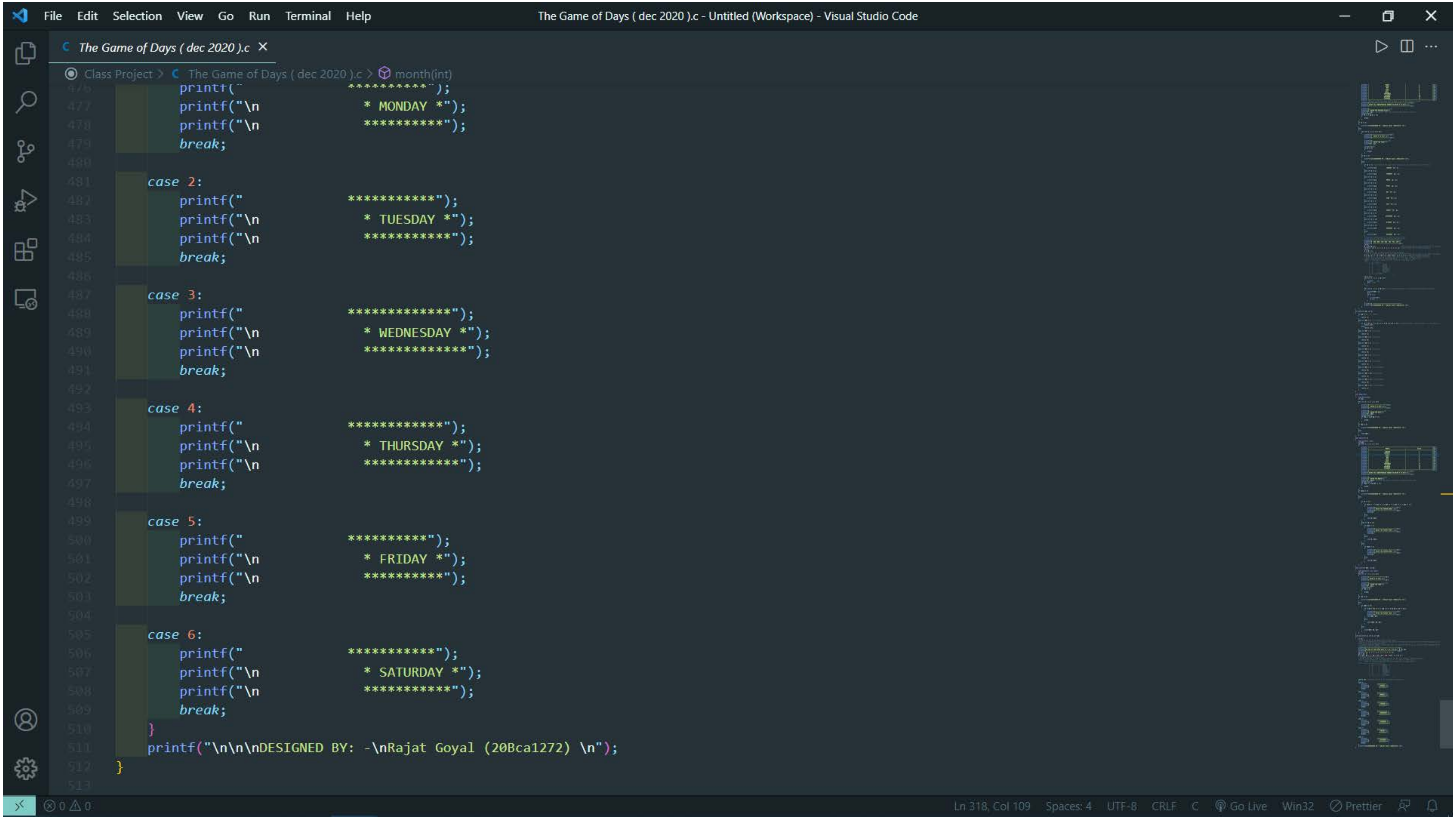
```c
            system("cls");
            if (m >= 0 && m <= 12)
            {
                break;
            }
        }
        if (m == 0)
        {
            printf("\n\n\nDESIGNED BY: -\nRajat Goyal (20Bca1272) \n");
        }
        else
        {
            for (int i = 1; i > 0; i++)
            {
                printf("\n------------------------\n");
                printf("**  ENTER 0 TO EXIT **");
                printf("\n------------------------\n");

                printf("\n______________________");
                printf("\n  ENTER THE YEAR:");
                scanf("%d", &y);

                system("cls");
                if (y >= 0)
                {
                    break;
                }
            }
            if (y == 0)
            {
                printf("\n\n\nDESIGNED BY: -\nRajat Goyal (20Bca1272) \n");
            }
            else
            {
                if (m == 1) //according to the given month and year we will print the input of the user.
                {
                    printf("\n\n             JANUARY  %d", y);
                }
```


File
Edit
Selection
View
Go
Run
Terminal
Help
The Game of Days (dec 2020).c - Untitled (Workspace) - Visual Studio Code
The Game of Days (dec 2020).c
Class Project > The Game of Days (dec 2020).c > month(int)
0 0
Ln 318, Col 109
Spaces: 4
UTF-8
CRLF
C
Go Live
Win32
Prettier

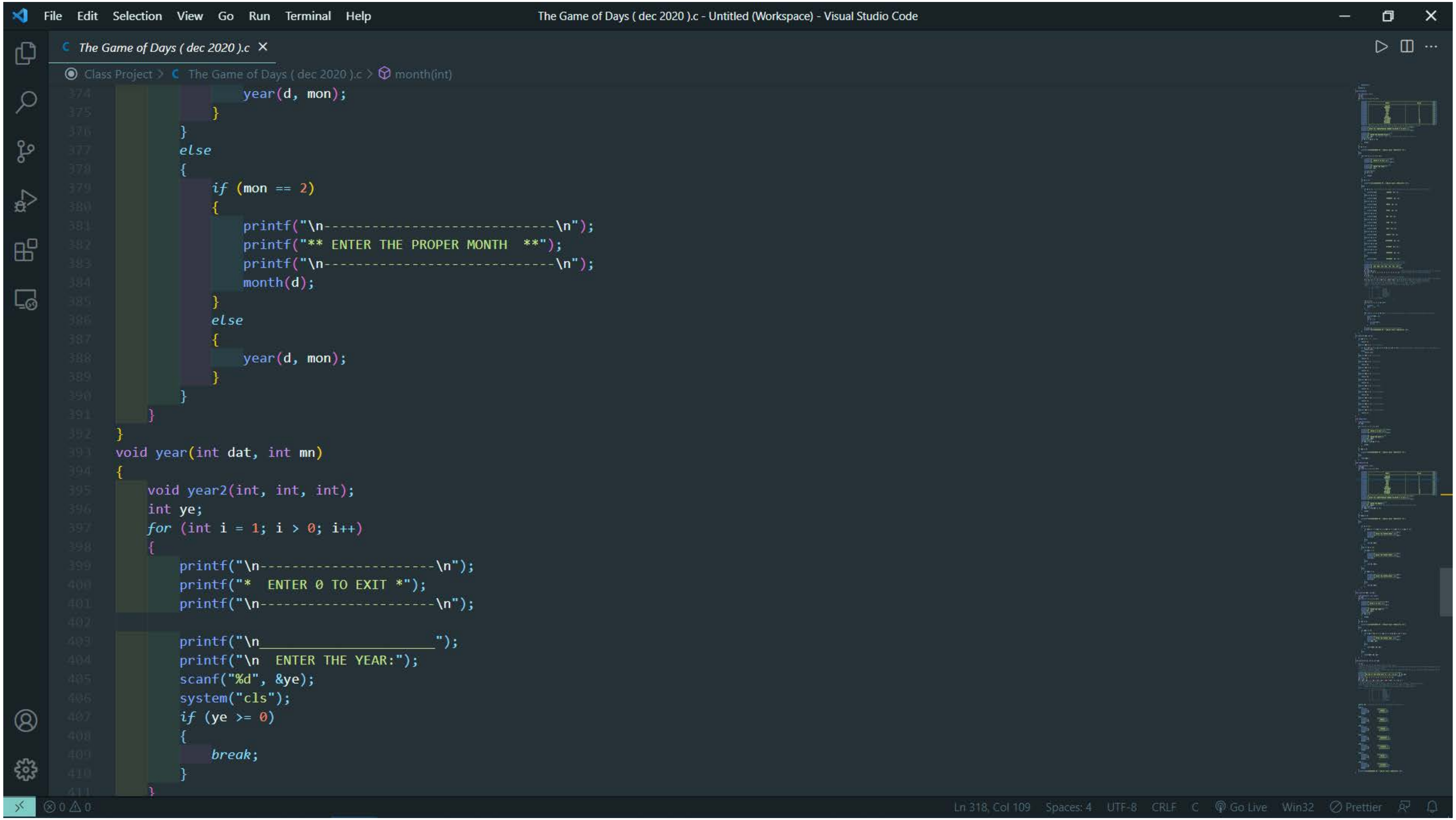
```c
            number of leap days starting from the reference to the given year */
            /*so    __________
                  |__k__|__DAYS__|
                  |   0        |    sunday   |
                  |   1        |    monday   |
                  |   2        |    tuesday  |
                  |   3        |    wednesday|
                  |   4        |    thursday |
                  |   5        |    friday   |
                  |__6__|__saturday|
                                                  */
            int s = 0;
            for (int i = 1; i <= k; i++)
            {
                printf("       ");
                s++; //s=0;
            }
            //s=3;

            for (int i = 1; i <= d; i++) //for printing the dates of a particular month given by the user.
            {
                printf("%5d", i);
                s++;
                if (s > 6)
                {
                    printf("\n");
                    s = 0;
                }
            }
            printf("\n -----------------------------------");
            printf("\n\n\nDESIGNED BY: -\nRajat Goyal (20Bca1272) \n");
        }
    }
}
int days(int md, int y)
{
    if (md == 1) //for january.
    {
```


File
Edit
Selection
View
Go
Run
Terminal
Help
The Game of Days (dec 2020).c - Untitled (Workspace) - Visual Studio Code
The Game of Days (dec 2020).c
Class Project > The Game of Days (dec 2020).c > month(int)
0 0
Ln 318, Col 109
Spaces: 4
UTF-8
CRLF
C
Go Live
Win32
Prettier

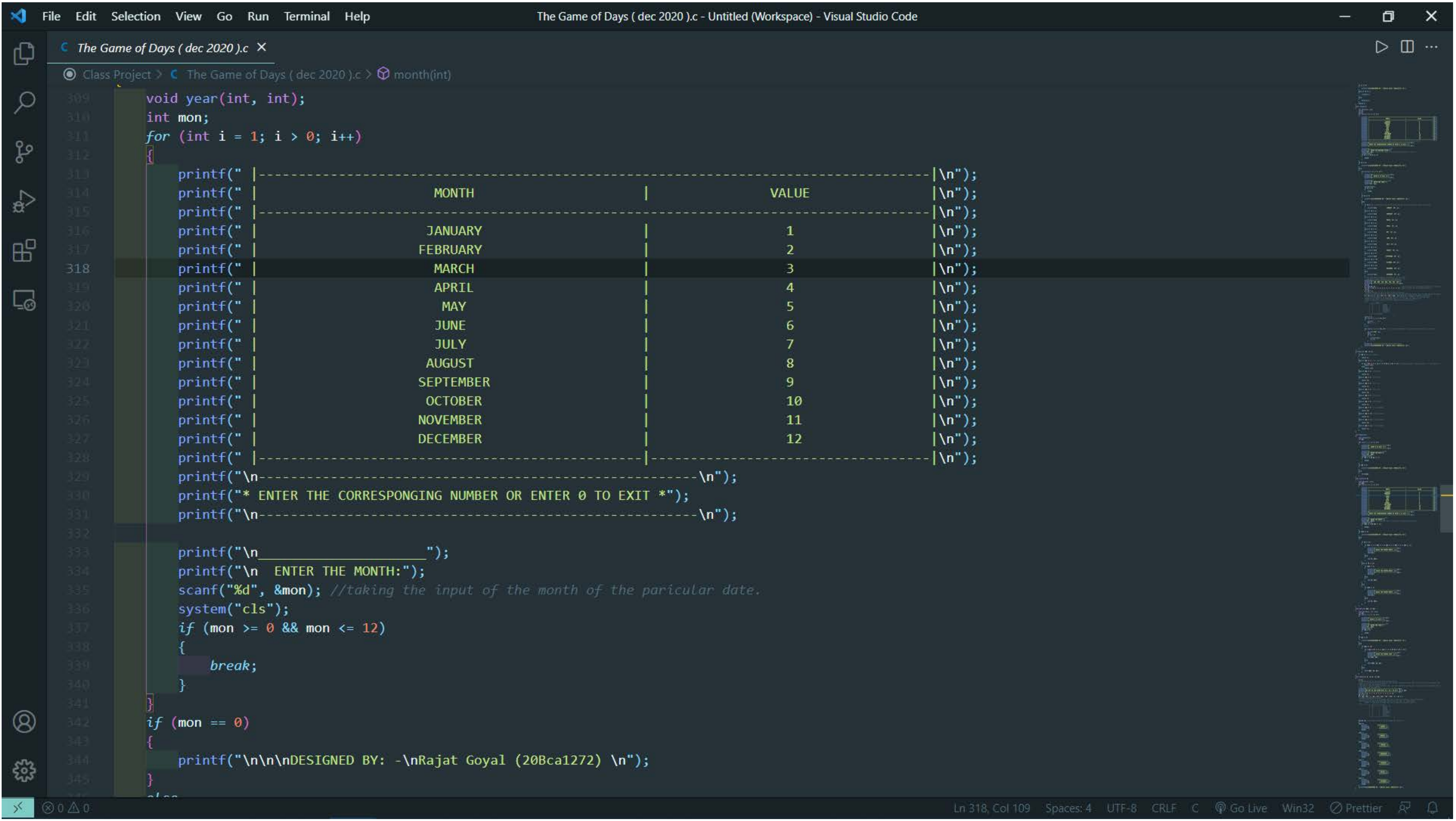
```c
                year2(dat, mn, ye);
            }
        }
        else
        {
            year2(dat, mn, ye);
        }
    }
}
void year2(int d, int m, int ye)
{
    int k;
    //finding the day of the given date of given month.
    //here y is the difference of the given year and the reference and we take one year before the georgian year i.e. 0.
    //and here d will be the given date.
    //we have to find the number of extra days upto that date and add the gap of the given month and then add the date
    //and then find the remainder.
    printf("\n--------------------------------------------\n");
    printf("|THE DAY OF THE GIVEN DATE %d / %d / %d IS|", d, m, ye);
    printf("\n--------------------------------------------\n");
    int t[] = {0, 3, 2, 5, 0, 3, 5, 1, 4, 6, 2, 4};
    ye -= m < 3;
    k = (ye + ye / 4 - ye / 100 + ye / 400 + t[m - 1] + d) % 7;
    //tomohiko sakamotos algorithm.
    //as the first day of 1 ad is monday then the 1st day will sunday of the previous year
    /*then y will be the no of extra days and y / 4 - y / 100 + y / 400 is the
            number of leap days starting from the reference to the given year */
    /*so  ____________________________
                  |___k_________|____DAYS_____|
                  |   0         |    sunday   |
                  |   1         |    monday   |
                  |   2         |    tuesday  |
                  |   3         |    wednesday|
                  |   4         |    thursday |
                  |   5         |    friday   |
                  |___6_________|____saturday_|
                                                */
```


File
Edit
Selection
View
Go
Run
Terminal
Help
The Game of Days (dec 2020).c - Untitled (Workspace) - Visual Studio Code
The Game of Days (dec 2020).c
Class Project > The Game of Days (dec 2020).c > month(int)
0 0
Ln 318, Col 109
Spaces: 4
UTF-8
CRLF
C
Go Live
Win32
Prettier

```
        printf("             **********");
        printf("\n             * MONDAY *");
        printf("\n             **********");
        break;

    case 2:
        printf("             ***********");
        printf("\n             * TUESDAY *");
        printf("\n             ***********");
        break;

    case 3:
        printf("             *************");
        printf("\n             * WEDNESDAY *");
        printf("\n             *************");
        break;

    case 4:
        printf("             ************");
        printf("\n             * THURSDAY *");
        printf("\n             ************");
        break;

    case 5:
        printf("             **********");
        printf("\n             * FRIDAY *");
        printf("\n             **********");
        break;

    case 6:
        printf("             ***********");
        printf("\n             * SATURDAY *");
        printf("\n             ***********");
        break;
    }
    printf("\n\n\nDESIGNED BY: -\nRajat Goyal (20Bca1272) \n");
}
```

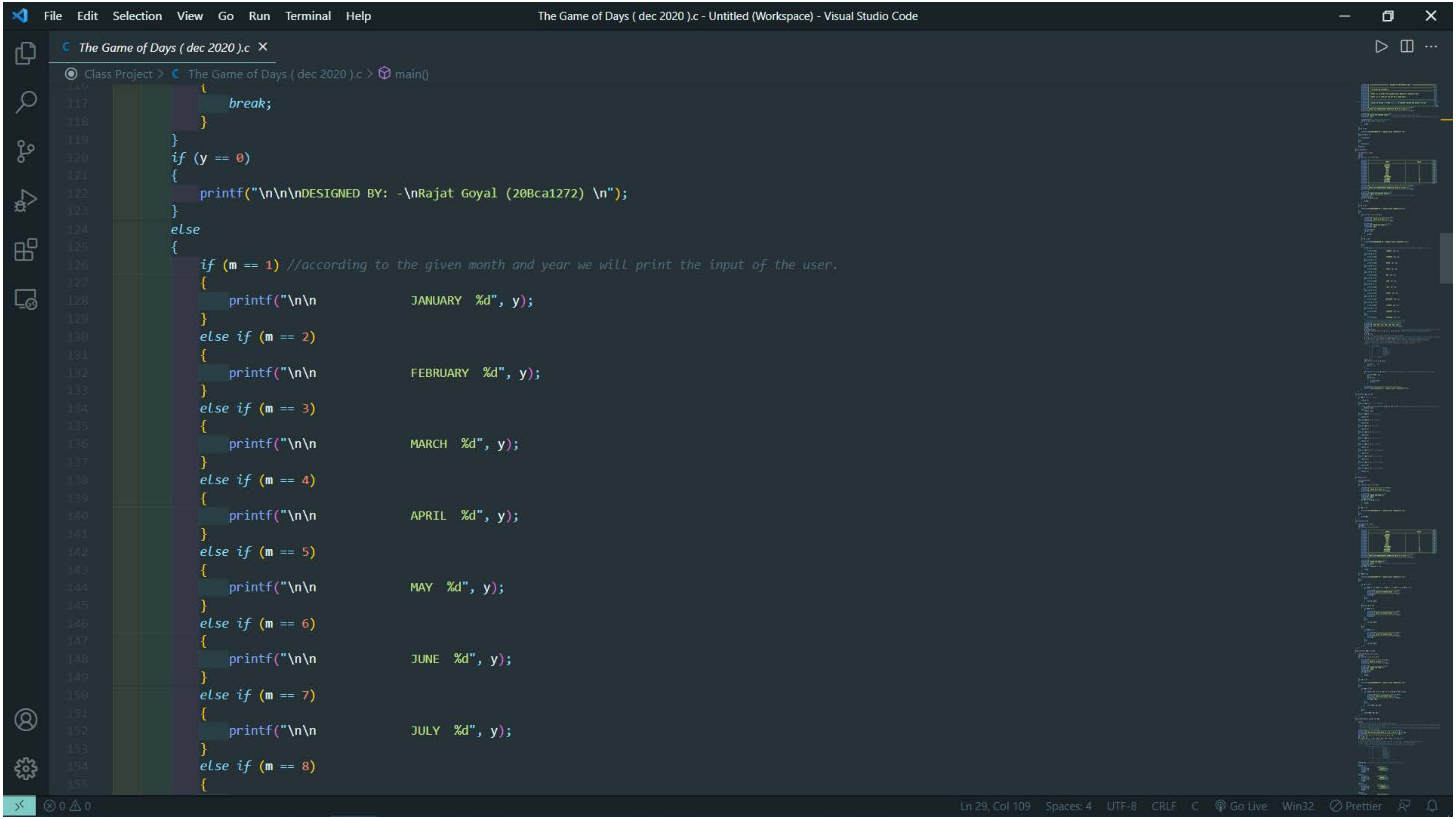

File
Edit
Selection
View
Go
Run
Terminal
Help
The Game of Days (dec 2020).c - Untitled (Workspace) - Visual Studio Code
The Game of Days (dec 2020).c
Class Project > The Game of Days (dec 2020).c > month(int)
0 0
Ln 318, Col 109
Spaces: 4
UTF-8
CRLF
C
Go Live
Win32
Prettier

```c
                year(d, mon);
            }
        }
        else
        {
            if (mon == 2)
            {
                printf("\n-----------------------------\n");
                printf("** ENTER THE PROPER MONTH  **");
                printf("\n-----------------------------\n");
                month(d);
            }
            else
            {
                year(d, mon);
            }
        }
    }
}
void year(int dat, int mn)
{
    void year2(int, int, int);
    int ye;
    for (int i = 1; i > 0; i++)
    {
        printf("\n----------------------\n");
        printf("*  ENTER 0 TO EXIT *");
        printf("\n----------------------\n");

        printf("\n______________________");
        printf("\n  ENTER THE YEAR:");
        scanf("%d", &ye);
        system("cls");
        if (ye >= 0)
        {
            break;
        }
    }
```

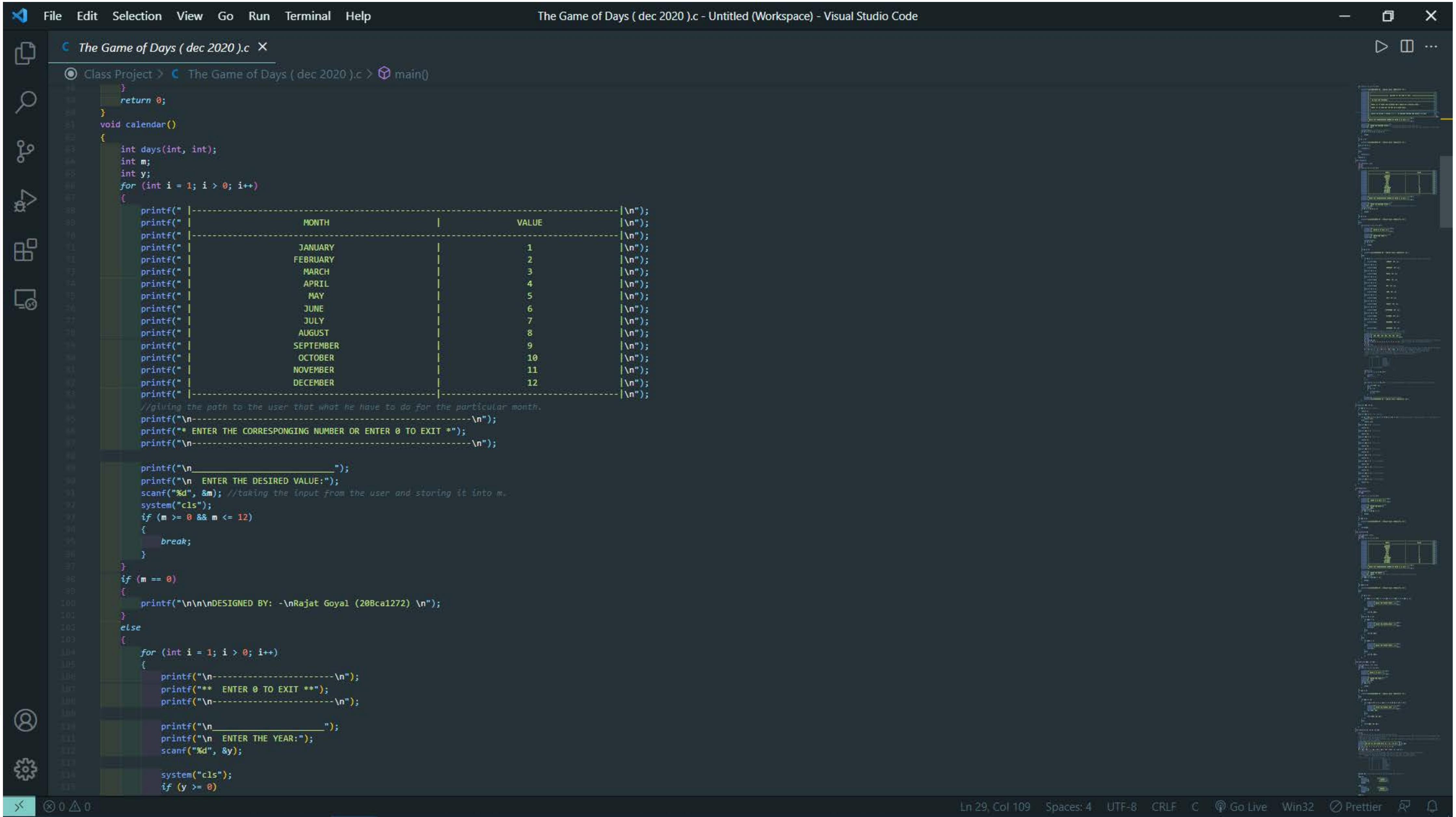


File Edit Selection View Go Run Terminal Help
The Game of Days (dec 2020).c - Untitled (Workspace) - Visual Studio Code
The Game of Days (dec 2020).c
Class Project > The Game of Days (dec 2020).c > month(int)
Ln 318, Col 109 Spaces: 4 UTF-8 CRLF C Go Live Win32 Prettier

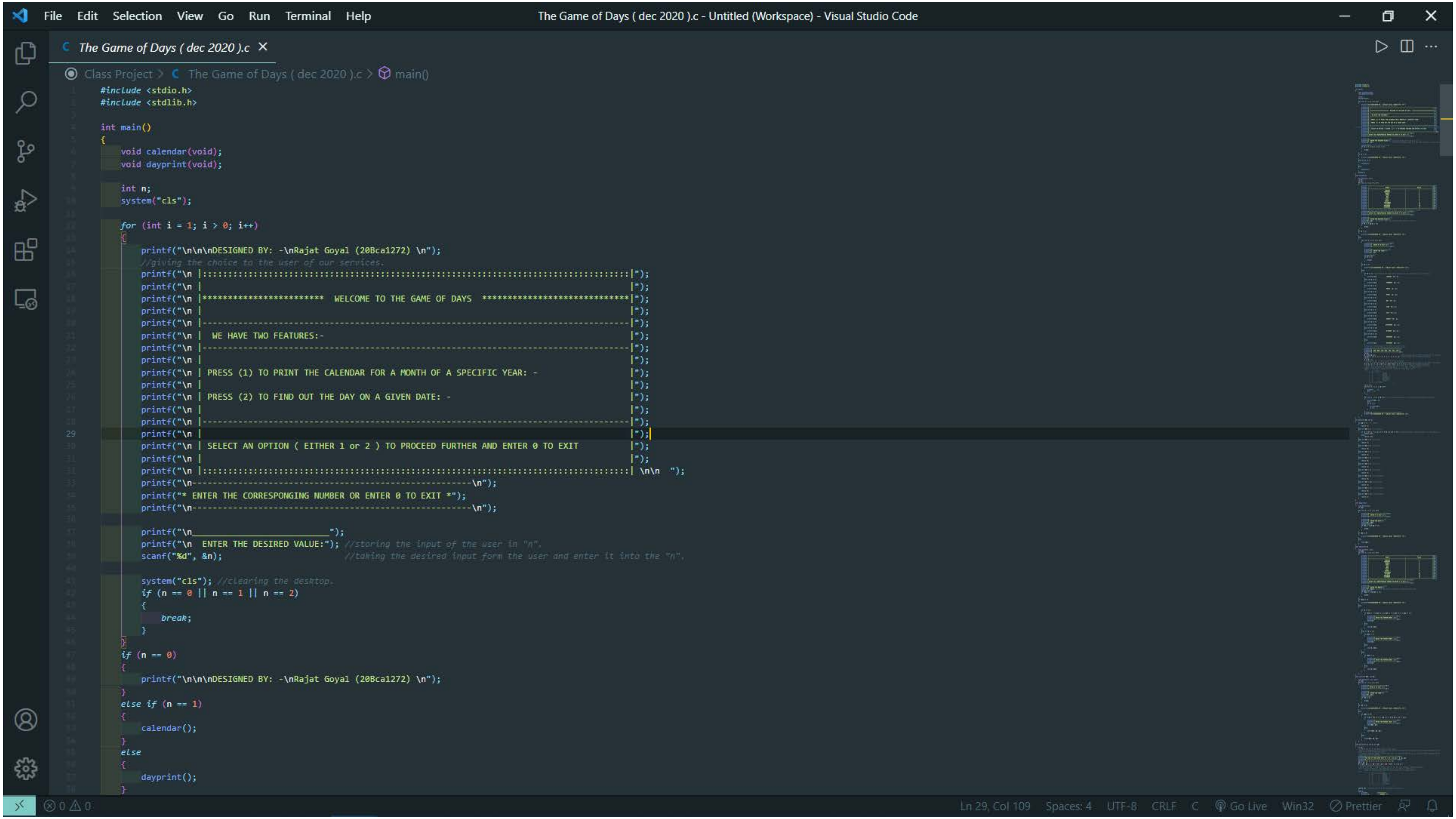
```c
void year(int, int);
int mon;
for (int i = 1; i > 0; i++)
{
    printf(" |-------------------------------------------------------------------------------------|\n");
    printf(" |                      MONTH                      |              VALUE                |\n");
    printf(" |-------------------------------------------------------------------------------------|\n");
    printf(" |                     JANUARY                     |                 1                 |\n");
    printf(" |                    FEBRUARY                     |                 2                 |\n");
    printf(" |                      MARCH                      |                 3                 |\n");
    printf(" |                      APRIL                      |                 4                 |\n");
    printf(" |                       MAY                       |                 5                 |\n");
    printf(" |                      JUNE                       |                 6                 |\n");
    printf(" |                      JULY                       |                 7                 |\n");
    printf(" |                     AUGUST                      |                 8                 |\n");
    printf(" |                    SEPTEMBER                    |                 9                 |\n");
    printf(" |                     OCTOBER                     |                10                 |\n");
    printf(" |                    NOVEMBER                     |                11                 |\n");
    printf(" |                    DECEMBER                     |                12                 |\n");
    printf(" |-------------------------------------------------|-----------------------------------|\n");
    printf("\n-------------------------------------------------------\n");
    printf("* ENTER THE CORRESPONGING NUMBER OR ENTER 0 TO EXIT *");
    printf("\n-------------------------------------------------------\n");

    printf("\n_____________________");
    printf("\n  ENTER THE MONTH:");
    scanf("%d", &mon); //taking the input of the month of the paricular date.
    system("cls");
    if (mon >= 0 && mon <= 12)
    {
        break;
    }
}
if (mon == 0)
{
    printf("\n\n\nDESIGNED BY: -\nRajat Goyal (20Bca1272) \n");
}
else
```


File
Edit
Selection
View
Go
Run
Terminal
Help
The Game of Days (dec 2020).c - Untitled (Workspace) - Visual Studio Code
The Game of Days (dec 2020).c
Class Project > The Game of Days (dec 2020).c > main()
⊗ 0 ⚠ 0
Ln 29, Col 109
Spaces: 4
UTF-8
CRLF
C
Go Live
Win32
Prettier

```c
                {
                    break;
                }
            }
            if (y == 0)
            {
                printf("\n\n\nDESIGNED BY: -\nRajat Goyal (20Bca1272) \n");
            }
            else
            {
                if (m == 1) //according to the given month and year we will print the input of the user.
                {
                    printf("\n\n             JANUARY  %d", y);
                }
                else if (m == 2)
                {
                    printf("\n\n             FEBRUARY  %d", y);
                }
                else if (m == 3)
                {
                    printf("\n\n             MARCH  %d", y);
                }
                else if (m == 4)
                {
                    printf("\n\n             APRIL  %d", y);
                }
                else if (m == 5)
                {
                    printf("\n\n             MAY  %d", y);
                }
                else if (m == 6)
                {
                    printf("\n\n             JUNE  %d", y);
                }
                else if (m == 7)
                {
                    printf("\n\n             JULY  %d", y);
                }
                else if (m == 8)
                {
```

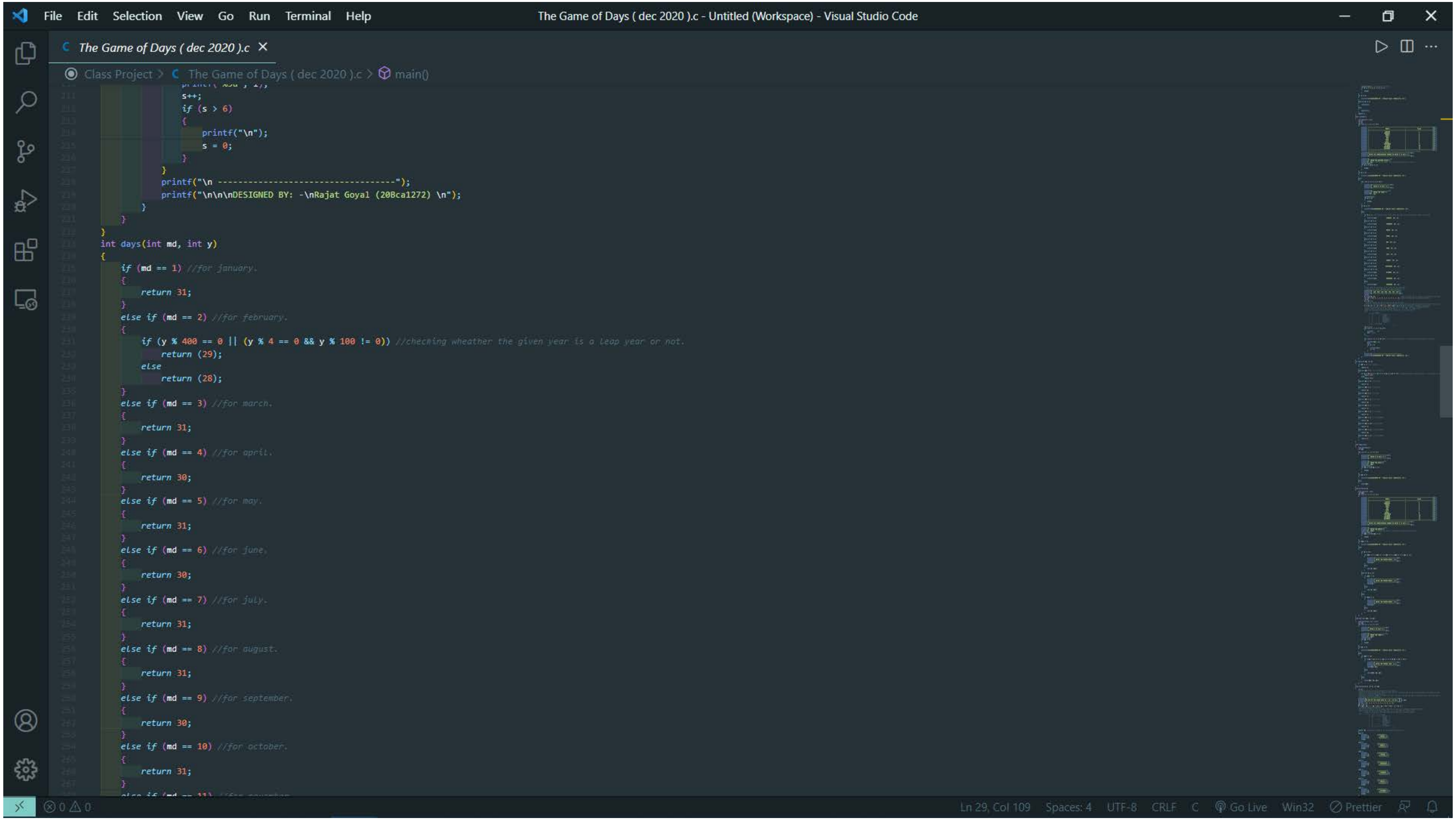

File
Edit
Selection
View
Go
Run
Terminal
Help
The Game of Days (dec 2020).c - Untitled (Workspace) - Visual Studio Code
The Game of Days (dec 2020).c
Class Project > The Game of Days (dec 2020).c > main()
0 0
Ln 29, Col 109
Spaces: 4
UTF-8
CRLF
C
Go Live
Win32
Prettier

```c
    }
    return 0;
}
void calendar()
{
    int days(int, int);
    int m;
    int y;
    for (int i = 1; i > 0; i++)
    {
        printf(" |-------------------------------------------------------------------------|\n");
        printf(" |                  MONTH                     |           VALUE            |\n");
        printf(" |-------------------------------------------------------------------------|\n");
        printf(" |                 JANUARY                    |             1              |\n");
        printf(" |                FEBRUARY                    |             2              |\n");
        printf(" |                  MARCH                     |             3              |\n");
        printf(" |                  APRIL                     |             4              |\n");
        printf(" |                   MAY                      |             5              |\n");
        printf(" |                  JUNE                      |             6              |\n");
        printf(" |                  JULY                      |             7              |\n");
        printf(" |                 AUGUST                     |             8              |\n");
        printf(" |                SEPTEMBER                   |             9              |\n");
        printf(" |                 OCTOBER                    |             10             |\n");
        printf(" |                NOVEMBER                    |             11             |\n");
        printf(" |                DECEMBER                    |             12             |\n");
        printf(" |--------------------------------------------|----------------------------|\n");
        //giving the path to the user that what he have to do for the particular month.
        printf("\n-------------------------------------------------------\n");
        printf("* ENTER THE CORRESPONGING NUMBER OR ENTER 0 TO EXIT *");
        printf("\n-------------------------------------------------------\n");

        printf("\n____________________________");
        printf("\n  ENTER THE DESIRED VALUE:");
        scanf("%d", &m); //taking the input from the user and storing it into m.
        system("cls");
        if (m >= 0 && m <= 12)
        {
            break;
        }
    }
    if (m == 0)
    {
        printf("\n\n\nDESIGNED BY: -\nRajat Goyal (20Bca1272) \n");
    }
    else
    {
        for (int i = 1; i > 0; i++)
        {
            printf("\n------------------------\n");
            printf("**  ENTER 0 TO EXIT **");
            printf("\n------------------------\n");

            printf("\n___________________________");
            printf("\n  ENTER THE YEAR:");
            scanf("%d", &y);

            system("cls");
            if (y >= 0)
```



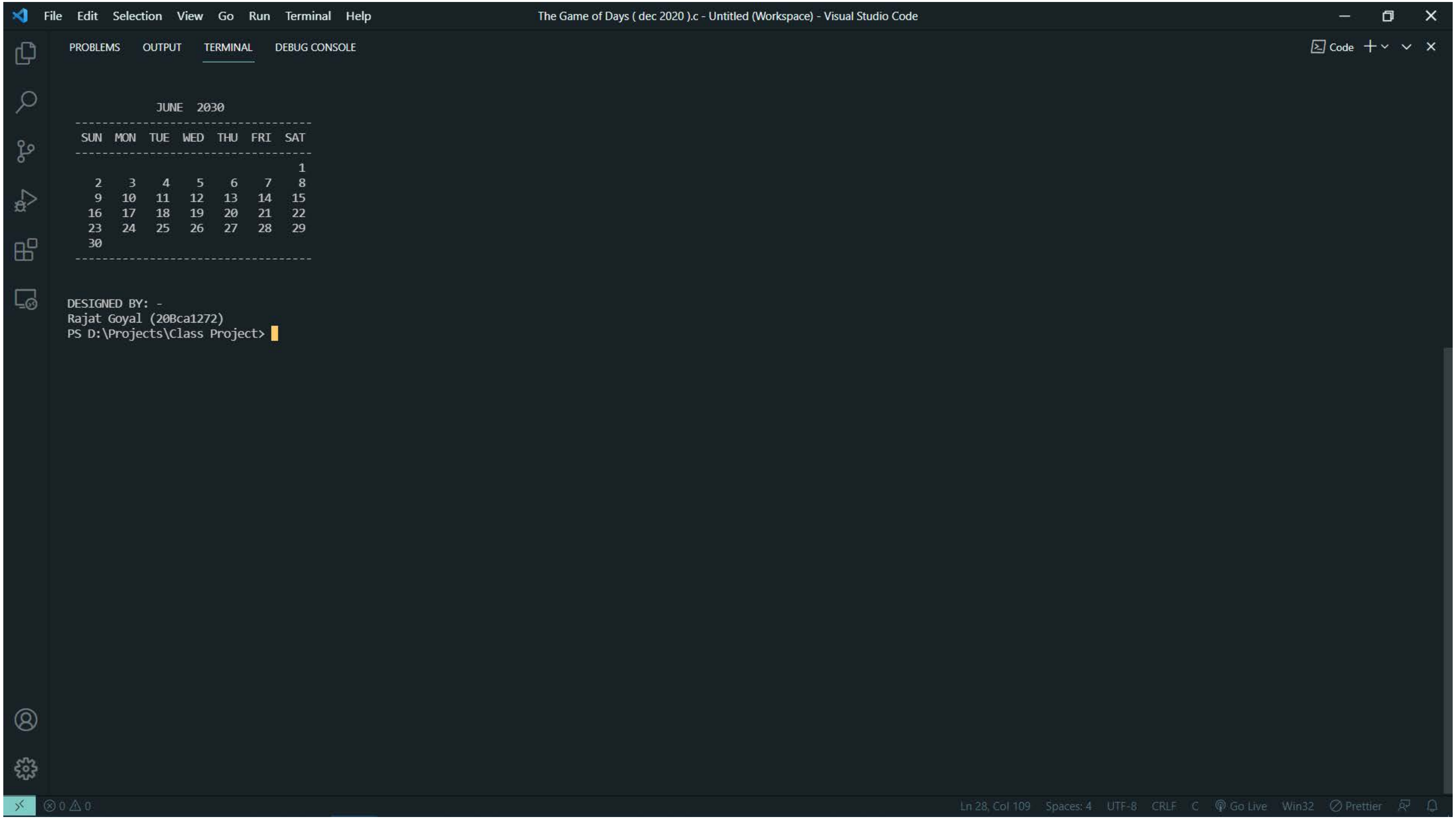
File Edit Selection View Go Run Terminal Help
The Game of Days (dec 2020).c - Untitled (Workspace) - Visual Studio Code
The Game of Days (dec 2020).c
Class Project > The Game of Days (dec 2020).c > main()
Ln 29, Col 109 Spaces: 4 UTF-8 CRLF C Go Live Win32 Prettier

```c
#include <stdio.h>
#include <stdlib.h>

int main()
{
    void calendar(void);
    void dayprint(void);

    int n;
    system("cls");

    for (int i = 1; i > 0; i++)
    {
        printf("\n\n\nDESIGNED BY: -\nRajat Goyal (20Bca1272) \n");
        //giving the choice to the user of our services.
        printf("\n |::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::|");
        printf("\n |                                                                                    |");
        printf("\n |************************  WELCOME TO THE GAME OF DAYS  *****************************|");
        printf("\n |                                                                                    |");
        printf("\n |------------------------------------------------------------------------------------|");
        printf("\n |  WE HAVE TWO FEATURES:-                                                            |");
        printf("\n |------------------------------------------------------------------------------------|");
        printf("\n |                                                                                    |");
        printf("\n | PRESS (1) TO PRINT THE CALENDAR FOR A MONTH OF A SPECIFIC YEAR: -                  |");
        printf("\n |                                                                                    |");
        printf("\n | PRESS (2) TO FIND OUT THE DAY ON A GIVEN DATE: -                                   |");
        printf("\n |                                                                                    |");
        printf("\n |------------------------------------------------------------------------------------|");
        printf("\n |                                                                                    |");
        printf("\n | SELECT AN OPTION ( EITHER 1 or 2 ) TO PROCEED FURTHER AND ENTER 0 TO EXIT          |");
        printf("\n |                                                                                    |");
        printf("\n |::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::| \n\n  ");
        printf("\n-------------------------------------------------------\n");
        printf("* ENTER THE CORRESPONGING NUMBER OR ENTER 0 TO EXIT *");
        printf("\n-------------------------------------------------------\n");

        printf("\n___________________________");
        printf("\n  ENTER THE DESIRED VALUE:"); //storing the input of the user in "n".
        scanf("%d", &n);                      //taking the desired input form the user and enter it into the "n".

        system("cls"); //clearing the desktop.
        if (n == 0 || n == 1 || n == 2)
        {
            break;
        }
    }
    if (n == 0)
    {
        printf("\n\n\nDESIGNED BY: -\nRajat Goyal (20Bca1272) \n");
    }
    else if (n == 1)
    {
        calendar();
    }
    else
    {
        dayprint();
    }
```


File
Edit
Selection
View
Go
Run
Terminal
Help
The Game of Days (dec 2020).c - Untitled (Workspace) - Visual Studio Code
The Game of Days (dec 2020).c
Class Project > The Game of Days (dec 2020).c > main()
0 0
Ln 29, Col 109
Spaces: 4
UTF-8
CRLF
C
Go Live
Win32
Prettier

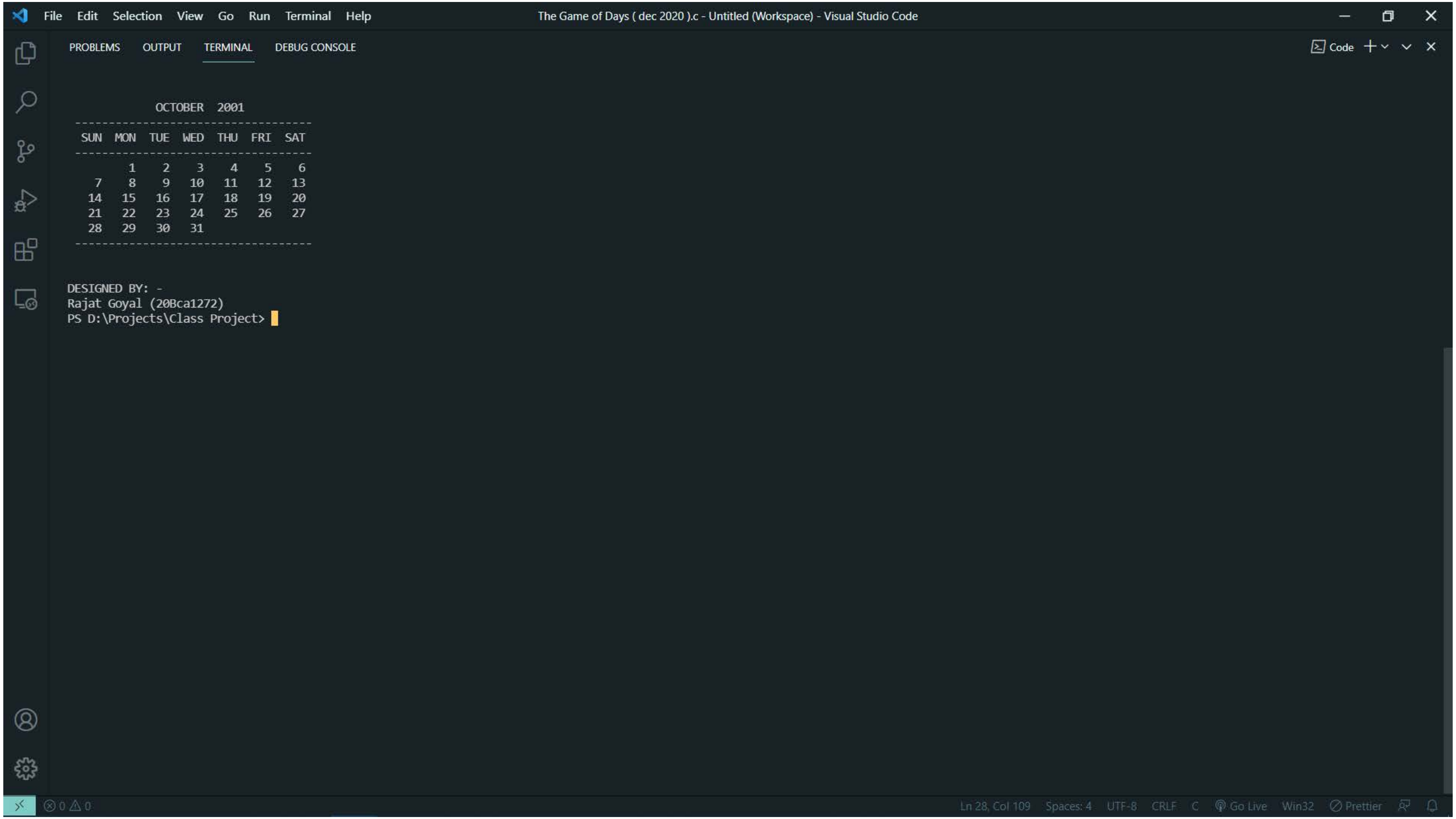
```c
                s++;
                if (s > 6)
                {
                    printf("\n");
                    s = 0;
                }
            }
            printf("\n ----------------------------------");
            printf("\n\n\nDESIGNED BY: -\nRajat Goyal (20Bca1272) \n");
        }
    }
}
int days(int md, int y)
{
    if (md == 1) //for january.
    {
        return 31;
    }
    else if (md == 2) //for february.
    {
        if (y % 400 == 0 || (y % 4 == 0 && y % 100 != 0)) //checking wheather the given year is a leap year or not.
            return (29);
        else
            return (28);
    }
    else if (md == 3) //for march.
    {
        return 31;
    }
    else if (md == 4) //for april.
    {
        return 30;
    }
    else if (md == 5) //for may.
    {
        return 31;
    }
    else if (md == 6) //for june.
    {
        return 30;
    }
    else if (md == 7) //for july.
    {
        return 31;
    }
    else if (md == 8) //for august.
    {
        return 31;
    }
    else if (md == 9) //for september.
    {
        return 30;
    }
    else if (md == 10) //for october.
    {
        return 31;
    }
    else if (md == 11) //for november.
```

Sample Outputs :-

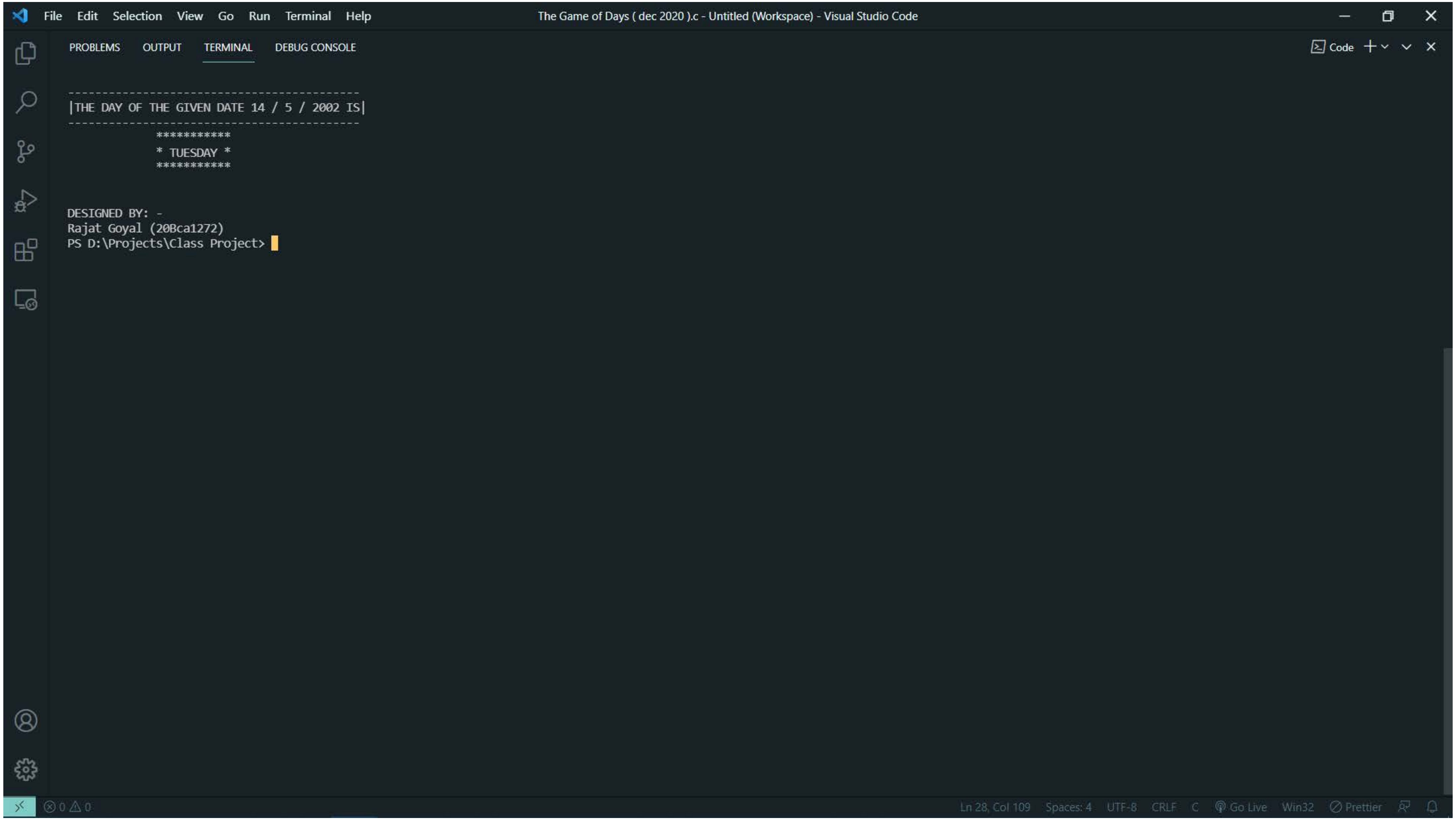


File Edit Selection View Go Run Terminal Help
The Game of Days (dec 2020).c - Untitled (Workspace) - Visual Studio Code
PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE
Code
Ln 28, Col 109 Spaces: 4 UTF-8 CRLF C Go Live Win32 Prettier
⊗ 0 ⚠ 0

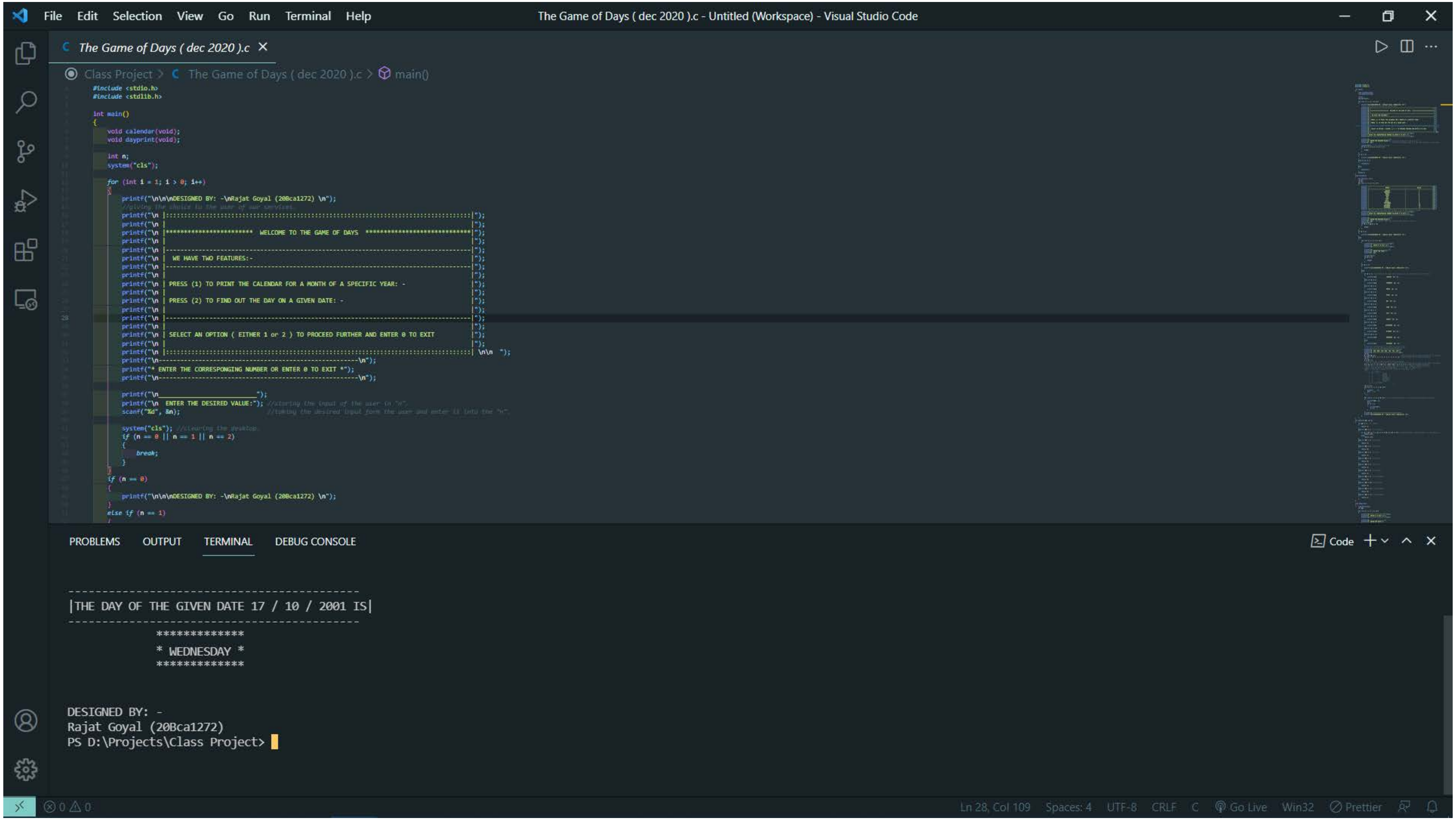
```
           JUNE  2030
 ---------------------------------
  SUN  MON  TUE  WED  THU  FRI  SAT
 ---------------------------------
                                1
    2    3    4    5    6    7    8
    9   10   11   12   13   14   15
   16   17   18   19   20   21   22
   23   24   25   26   27   28   29
   30
 ---------------------------------


DESIGNED BY: -
Rajat Goyal (20Bca1272)
PS D:\Projects\Class Project>
```



```
             OCTOBER  2001
 -----------------------------------
  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
 -----------------------------------


DESIGNED BY: -
Rajat Goyal (20Bca1272)
PS D:\Projects\Class Project>
```


File Edit Selection View Go Run Terminal Help
The Game of Days (dec 2020).c - Untitled (Workspace) - Visual Studio Code
PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE
Code
Ln 28, Col 109 Spaces: 4 UTF-8 CRLF C Go Live Win32 Prettier

```
---------------------------------------------
|THE DAY OF THE GIVEN DATE 14 / 5 / 2002 IS|
---------------------------------------------
             ***********
             * TUESDAY *
             ***********


DESIGNED BY: -
Rajat Goyal (20Bca1272)
PS D:\Projects\Class Project>
```



File
Edit
Selection
View
Go
Run
Terminal
Help
The Game of Days (dec 2020).c - Untitled (Workspace) - Visual Studio Code
The Game of Days (dec 2020).c
Class Project > The Game of Days (dec 2020).c > main()
PROBLEMS
OUTPUT
TERMINAL
DEBUG CONSOLE
Code
Ln 28, Col 109
Spaces: 4
UTF-8
CRLF
C
Go Live
Win32
Prettier

```c
#include <stdio.h>
#include <stdlib.h>

int main()
{
    void calendar(void);
    void dayprint(void);

    int n;
    system("cls");

    for (int i = 1; i > 0; i++)
    {
        printf("\n\n\nDESIGNED BY: -\nRajat Goyal (20Bca1272) \n");
        //giving the choice to the user of our services.
        printf("\n |::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::|");
        printf("\n |                                                                                       |");
        printf("\n |************************  WELCOME TO THE GAME OF DAYS  ********************************|");
        printf("\n |                                                                                       |");
        printf("\n |---------------------------------------------------------------------------------------|");
        printf("\n |  WE HAVE TWO FEATURES:-                                                               |");
        printf("\n |---------------------------------------------------------------------------------------|");
        printf("\n |                                                                                       |");
        printf("\n | PRESS (1) TO PRINT THE CALENDAR FOR A MONTH OF A SPECIFIC YEAR: -                     |");
        printf("\n |                                                                                       |");
        printf("\n | PRESS (2) TO FIND OUT THE DAY ON A GIVEN DATE: -                                      |");
        printf("\n |                                                                                       |");
        printf("\n |---------------------------------------------------------------------------------------|");
        printf("\n |                                                                                       |");
        printf("\n | SELECT AN OPTION ( EITHER 1 or 2 ) TO PROCEED FURTHER AND ENTER 0 TO EXIT             |");
        printf("\n |                                                                                       |");
        printf("\n |::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::| \n\n  ");
        printf("\n-------------------------------------------------------\n");
        printf("* ENTER THE CORRESPONGING NUMBER OR ENTER 0 TO EXIT *");
        printf("\n-------------------------------------------------------\n");

        printf("\n_____________________________");
        printf("\n  ENTER THE DESIRED VALUE:"); //storing the input of the user in "n".
        scanf("%d", &n);                    //taking the desired input form the user and enter it into the "n".

        system("cls"); //clearing the desktop.
        if (n == 0 || n == 1 || n == 2)
        {
            break;
        }
    }
    if (n == 0)
    {
        printf("\n\n\nDESIGNED BY: -\nRajat Goyal (20Bca1272) \n");
    }
    else if (n == 1)
```

```
---------------------------------------------
|THE DAY OF THE GIVEN DATE 17 / 10 / 2001 IS|
---------------------------------------------
             *************
             * WEDNESDAY *
             *************


DESIGNED BY: -
Rajat Goyal (20Bca1272)
PS D:\Projects\Class Project>
```

Contributions and References :-

- ❖ This code has been build up from the logic related to repeating dates, months and years (including cases for leap years) in continuation with the pattern of the Gregorian Calendar.

- ❖ From our pre requisite knowledge, we were able to build up this code for the year 2001-2030.

- ❖ But to extend it even further, including the years before and after this, we took help of the " TOMOHIKO SAKAMOTOS ALGORITHM " .

- ❖ References from the internet have been taken from websites :

  → Geeks for geeks
  → Quora

Both members have equally contributed for the success of this code which involved building the logic, deciding the order, implementing procedures and statements, beautifying the code for better readability, modifying the screen for proper display of the output and finally, in compiling it all and creating this presentation.

So, at last, we would like to express our gratitude for letting us have an opportunity to work upon this topic.

GROUP MEMBERS :

(1). 20BCA1272 - Rajat Goyal

(2). 20BCA1295 -Kritika Sejwal

-----The End-----