

PPS Class Activity

Department of CSE Certified that this is a

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*Of Class CSE C of Year 1 of Semester 1 in
PPS Laboratory*

Date:

Signature:

Abstract:

The C Calendar Generator is a program designed to generate and display calendars for any given year. The program takes user input for the year and month, calculates the days in that month, and prints a neatly formatted calendar. It utilizes C programming language and basic date-handling algorithms to determine the day of the week for the first day of the month, facilitating the creation of an accurate and aesthetically pleasing calendar.

Source code:

```
#include <stdio.h>

int dayOfWeek(int year, int month, int day) {
    if (month < 3) {
        month += 12;
        year--;
    }

    int h = (day + 2 * month + 3 * (month + 1) / 5 + year + year / 4 - year / 100 +
(year / 400) % 7;
    return h;
}

void printCalendar(int year) {
```

```
char *months[] = {"January", "February", "March", "April", "May", "June",  
"July", "August", "September", "October", "November", "December"};
```

```
int daysInMonth[] = {31, 28, 31, 30, 31, 30, 31, 31, 30, 31, 30, 31};
```

```
int day = 1;
```

```
for (int month = 0; month < 12; month++) {
```

```
    printf("\n----- %s ----- \n", months[month]);
```

```
    printf(" Sun Mon Tue Wed Thu Fri Sat\n");
```

```
    int startDay = dayOfWeek(year, month + 1, 1);
```

```
    for (int i = 0; i < startDay; i++) {
```

```
        printf("  ");
```

```
    }
```

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

```
        printf("%4d", i);
```

```
        if (++startDay > 6) {
```

```
            startDay = 0;
```

```
            printf("\n");
```

```
        }
```

```
    }
```

```
    if (startDay != 0) {
```

```
        printf("\n");
```

```
    }  
    }  
}  
  
int main() {  
    int year;  
  
    printf("Enter the year: ");  
    scanf("%d", &year);  
  
    printf("\n\n***** CALENDAR for Year %d *****\n\n", year);  
  
    printCalendar(year);  
  
    return 0;  
}
```

Output:

PROBLEMS

OUTPUT

TERMINAL

PORTS

▼ TERMINAL

Enter the year: 2024

***** CALENDAR for Year 2024 *****

----- 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				

----- February -----

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					