

ODHS TaskPhase-7

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● ● ● TASK 7 ● ● ●

This task is to help you understand how to include and use a library in your program

You can use the following as reference and search more on it.

<https://www.geeksforgeeks.org/c-c-include-directive-with-examples/>

Problem statement-

Write a code for 2 LEDs toggling alternatively.

Submit .c and .h files to parikshit.odhs@gmail.com

Deadline: 19th December 2023, time: 23:59

CODE

```
#include <stdio.h>
#include <stdlib.h>
#include "ledFunctions.h"

void main()
{
    //initize led
    LED *l1;
    LED *l2;

    l1= (LED * ) malloc(sizeof(LED));
    l2= (LED * ) malloc(sizeof(LED));

    int n;
    initializeLED(l1,1);
    initializeLED(l2,2);

    printf("state of led after initialization : \n");
    printLED(l1);
    printLED(l2);

    //setting led
```

```

setLED(11);
setLED(12);

printf("state of led after setting : \n");
printLED(11);
printLED(12);

//resetting led

//setting led
resetLED(11);
resetLED(12);

printf("state of led after resetting : \n");
printLED(11);
printLED(12);

// toggling leds
printf("enter number of times to be toggled : \n");

scanf("%d",&n);

//setting one led as on and one as off

setLED(11);
resetLED(12);
printf("state just before toggling : \n");
printLED(11);
printLED(12);

printf("\ntoggling the leds alternatively");
for (int i=0;i<n;i++)
{
    //toggles led 1 only
    if (i%2==0)

        toggleLED(11);

    else
        toggleLED(12); //toggles led 2
    printf("\n%dth toggle : \n",(i+1));
    printLED(11);
    printLED(12);

}
}

```

OUTPUT

```
PS C:\Users\shash\Desktop\ODHS Taskphase-7> cd "c:\Users\shash\Desktop\ODHS Taskphase-7\"
; if ($?) { gcc alternateLed.c -o alternateLed } ; if ($?) { .\alternateLed }
state of led after initialization :
    LED 1 is OFF
    LED 2 is OFF
state of led after setting :
    LED 1 is ON
    LED 2 is ON
state of led after resetting :
    LED 1 is OFF
    LED 2 is OFF
enter number of times to be toggled :
5
state just before toggling :
    LED 1 is ON
    LED 2 is OFF

toggling the leds alternatively
1th toggle :
    LED 1 is OFF
    LED 2 is OFF

2th toggle :
    LED 1 is OFF
    LED 2 is ON

3th toggle :
    LED 1 is ON
    LED 2 is ON

4th toggle :
    LED 1 is ON
    LED 2 is OFF

5th toggle :
    LED 1 is OFF
    LED 2 is OFF
PS C:\Users\shash\Desktop\ODHS Taskphase-7> █
```