

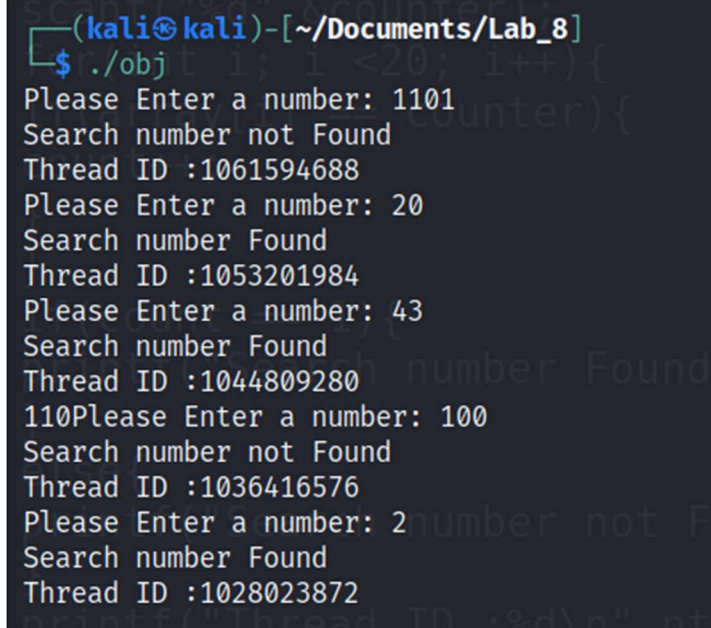
OS Lab 8

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Task 1

```
#include <stdio.h>
#include <unistd.h>
#include <stdlib.h>
#include <pthread.h>
void *thread_function(void*);
pthread_mutex_t mutex1 = PTHREAD_MUTEX_INITIALIZER;
int counter = 0;
int count = 0;
int array[20] = {1,5,7,10,12,14,15,18,20,22,25,27,30,64,110,220,23,657,43,2};
int main(){
    pthread_t thread_id[5];
    int iret[5];
    for(int i=0;i<5;i++){
        pthread_create(&thread_id[i],NULL,thread_function,NULL);
        sleep(5);}
    return 0;}
void *thread_function(void *){
    pthread_mutex_lock(&mutex1);
    printf("Please Enter a number: ");
    scanf("%d",&counter);
    for(int i; i < 20; i++){
        if(array[i] == counter){
            count++;}}
    if(count == 1){
        printf("Search number Found\n");}
    else{
        printf("Search number not Found\n");}
    count = 0;
    pthread_mutex_unlock(&mutex1);}
```

Output



```
(kali㉿kali)-[~/Documents/Lab_8]
$ ./obj
Please Enter a number: 1101
Search number not Found
Thread ID :1061594688
Please Enter a number: 20
Search number Found
Thread ID :1053201984
Please Enter a number: 43
Search number Found
Thread ID :1044809280
110Please Enter a number: 100
Search number not Found
Thread ID :1036416576
Please Enter a number: 2
Search number Found
Thread ID :1028023872
```