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){

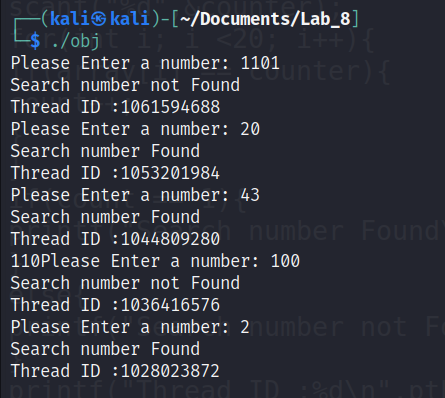
printf("Search number Found\n");}

else{

printf("Search number not Found\n");}

count = 0;

pthread\_mutex\_unlock(&mutex1);}

Output