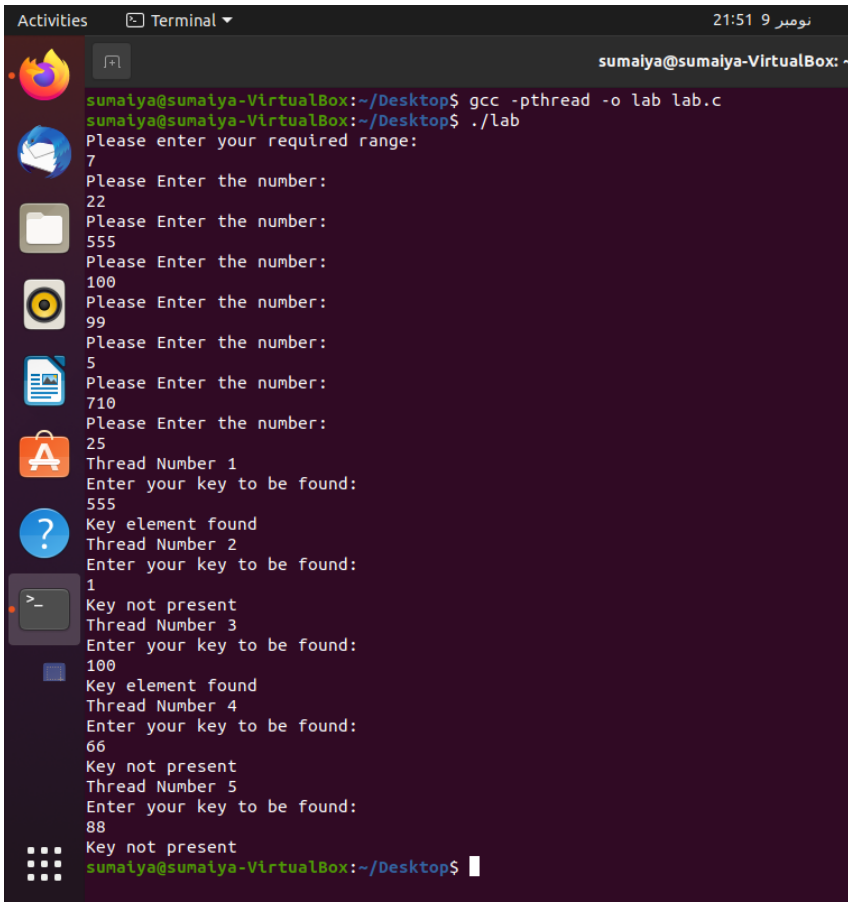
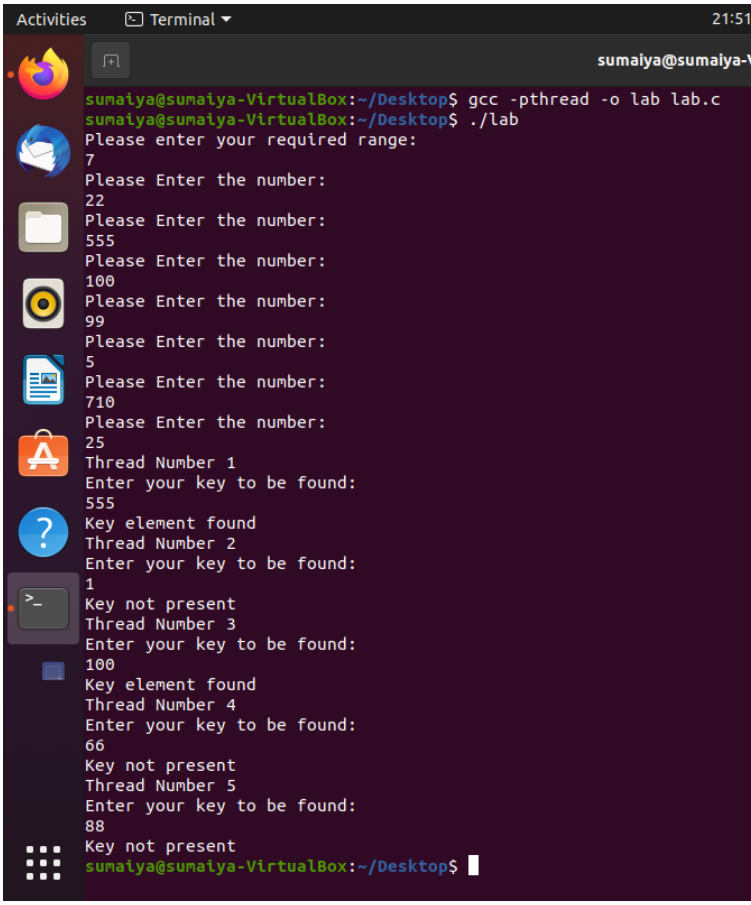
```
#include<stdio.h>
#include<pthread.h>
int array[50],n,i,key;
void *thread1()
{
        int f=0;
        printf("Please enter your required range: \n");
        scanf("%d",&n);
        for(i=0;i<n;i++){
                printf("Please Enter the number: \n");
                scanf("%d",&array[i]);
        }
        printf("Thread Number 1 \n");
        printf("Enter your key to be found: \n");
        scanf("%d",&key);
        for(i=0;i<n;i++){
                if(array[i] == key)
                f=1;
        }
        if(f == 1){
                printf("Key element found \n");
        }
        else{
                printf("Key not present\n");
        } }
void *thread2()
{
        int f=0;
        printf("Thread Number 2 \n");
        printf("Enter your key to be found: \n");
        scanf("%d",&key);
        for(i=0;i<n; i++){
                if(array[i] == key){
                        f=1;
                } }
        if(f == 1) {
                printf("Key element found \n"); }
 else {
                printf("Key not present\n");
        } }
void *thread3()
{
        int f=0;
        printf("Thread Number 3 \n");
        printf("Enter your key to be found: \n");
        scanf("%d",&key);
        for(i=0;i<n;i++) {
                if(array[i] == key)
                f=1;
        }
        if(f==1) {
                printf("Key element found \n");
        }
        else {
                printf("Key not present\n");
        } }
void *thread4()
{
```



```
        int f=0;
        printf("Thread Number 4 \n");
        printf("Enter your key to be found: \n");
        scanf("%d",&key);
        for(i=0;i<n;i++) {
                if(array[i] == key)
                f=1;
        }
        if(f==1) {
                printf("Key element found \n");
        }
        else {
                printf("Key not present \n");
        } }
void *thread5()
{
        int f=0;
        printf("Thread Number 5 \n");
        printf("Enter your key to be found: \n");
        scanf("%d",&key);
        for(i=0;i<n;i++) {
                if(array[i] == key)
                f=1;
        }
        if(f==1) {
                printf("Key element found \n");
        }
        Else {
                printf("Key not present\n");
        } }
int main() {
        int n,i;
        pthread_t threadno1;
        pthread_t threadno2;
        pthread_t threadno3;
        pthread_t threadno4;
        pthread_t threadno5;

        n=pthread_create(&threadno1,NULL,&thread1,NULL);
        pthread_join(threadno1,NULL);

        n=pthread_create(&threadno2,NULL,&thread2,NULL);
        pthread_join(threadno2,NULL);

        n=pthread_create(&threadno3,NULL,&thread3,NULL);
        pthread_join(threadno3,NULL);

        n=pthread_create(&threadno4,NULL,&thread4,NULL);
        pthread_join(threadno4,NULL);

        n=pthread_create(&threadno5,NULL,&thread5,NULL);
        pthread_join(threadno5,NULL);
}
```



```c
#include <stdlib.h>
#include <stdio.h>
#include <unistd.h>
#include <sys/types.h>
int main()
{
 int val1;
 int val2;
 printf("Enter First Number: ");
 scanf("%d", &val1);
 printf("Enter Second Number: ");
 scanf("%d",&val2);
 pid_t C_a,C_b,C_a1,C_b1;
 printf("\n Parent Process with ID %d \n",getpid());
 printf("First number: %d\n",val1);
 printf("Second number: %d\n",val2);
 C_a=fork();
 if (C_a == 0 ){
 printf("\nChild C1 with PID %d and Parent ID is %d\n",getpid(),getppid());
 int c = val1+val2;
 printf("Add: %d\n",c);
 C_a1=fork();
 if (C_a1 == 0 ){
 printf("\nChild C11 with PID %d and Parent ID is %d\n",getpid(),getppid());
 int e = val1*val2;
 printf("Multiply: %d\n",e);
 }  }
 else {
 C_b = fork();
 if (C_b == 0){
 printf("\nChild C2 with ID %d and Parent ID is %d\n",getpid(),getppid());
 int d = val1-val2;
 printf("Subtract: %d\n",d);
 C_b1=fork();
 if (C_b1 == 0 ){
 printf("\nChild C21 with PID %d and Parent ID is %d\n",getpid(),getppid());
 int f = val1/val2;
 printf("Divide: %d\n",f);
 } }
 else{
 sleep(1);
 }}}
```