# HAMMAD MURTAZA

# SID: 11146

# OS LAB 8

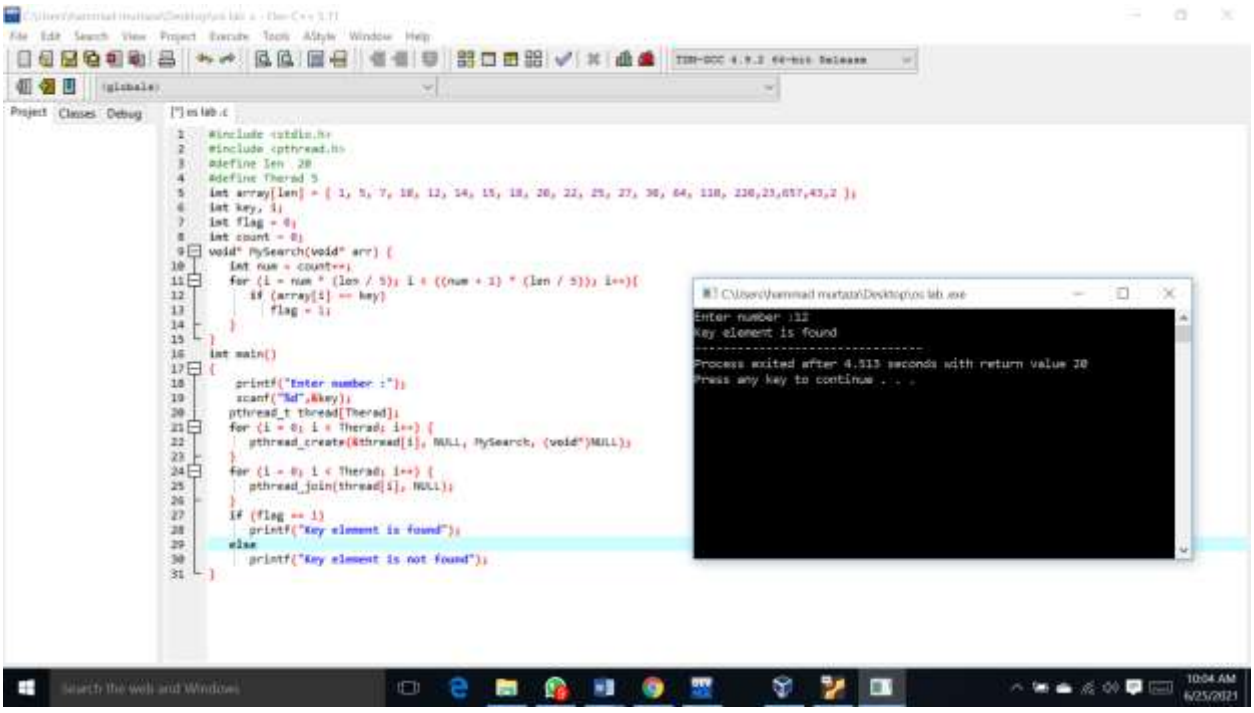
# Q1:

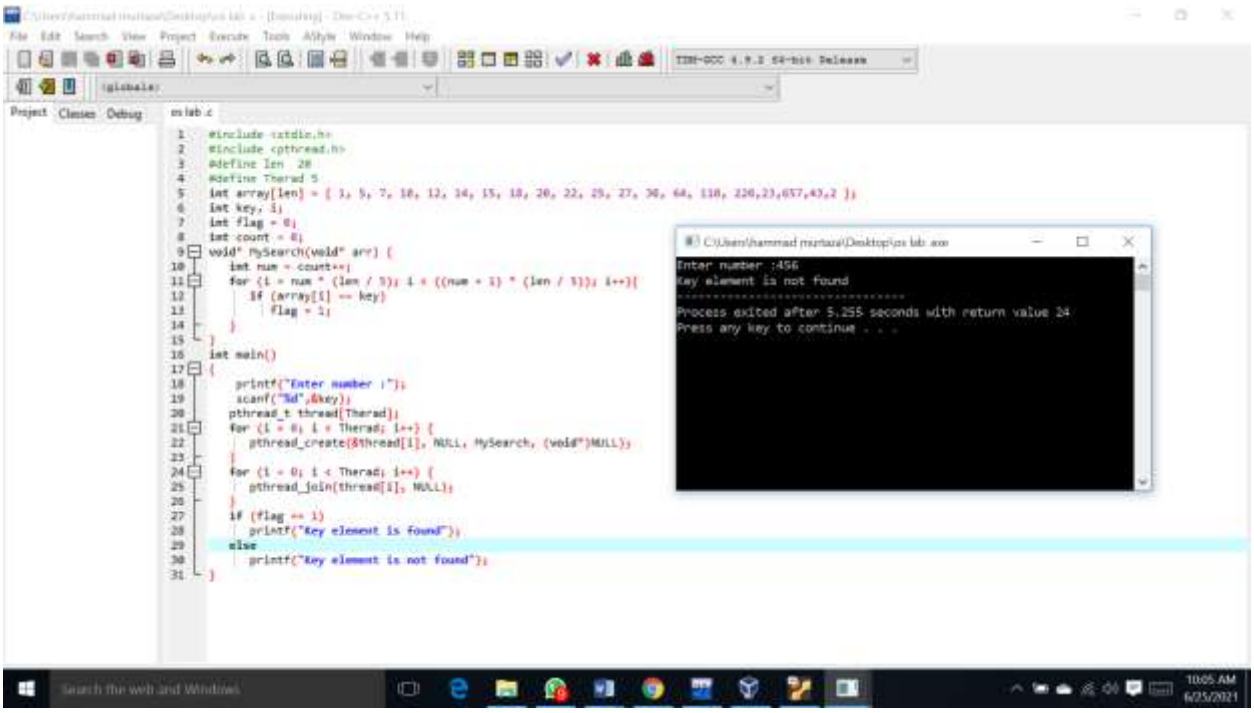
# CODE:

```
#include <stdio.h>
#include <pthread.h>
#define len  20
#define Therad 5
int array[len] = { 1, 5, 7, 10, 12, 14, 15, 18, 20, 22, 25, 27, 30, 64, 110, 220,23,657,43,2 };
int key, i;
int flag = 0;
int count = 0;
void* MySearch(void* arr) {
  int num = count++;
  for (i = num * (len / 5); i < ((num + 1) * (len / 5)); i++){
    if (array[i] == key)
      flag = 1;
  }
}
int main()
{
```

```
        printf("Enter number :");
        scanf("%d",&key);
  pthread_t thread[Therad];
  for (i = 0; i < Therad; i++) {
    pthread_create(&thread[i], NULL, MySearch, (void*)NULL);
  }
  for (i = 0; i < Therad; i++) {
    pthread_join(thread[i], NULL);
  }
  if (flag == 1)
    printf("Key element is found");
  else
    printf("Key element is not found");
}
```

# OUTPUT:




os lab.c
#include <stdio.h>
#include <pthread.h>
#define len 20
#define Thread 5
int array[len] = { 1, 5, 7, 10, 12, 14, 15, 18, 20, 22, 25, 27, 30, 64, 110, 220,23,657,43,2 };
int key, i;
int flag = 0;
int count = 0;
void* MySearch(void* arr) {
int num = count++;
for (i = num * (len / 5); i < ((num + 1) * (len / 5)); i++){
if (array[i] == key)
flag = 1;
}
}
int main()
{
printf("Enter number :");
scanf("%d",&key);
pthread_t thread[Thread];
for (i = 0; i < Thread; i++) {
pthread_create(&thread[i], NULL, MySearch, (void*)NULL);
}
for (i = 0; i < Thread; i++) {
pthread_join(thread[i], NULL);
}
if (flag == 1)
printf("Key element is found");
else
printf("Key element is not found");
}
C:\Users\hammad murtaza\Desktop\os lab.exe
Enter number :456
Key element is not found
Process exited after 5.255 seconds with return value 24
Press any key to continue . . .
Search the web and Windows
10:05 AM
6/25/2021