10. Write a C program that illustrates two processes communicating using shared memory.

PROGRAM:

```
#include<stdio.h>
#include<stdlib.h>
#include<unistd.h>
#include<sys/shm.h>
#include<string.h>
int main()
{
int i;
void *shared_memory;
char buff[100];
int shmid;
shmid=shmget((key_t)2345, 1024, 0666|IPC_CREAT);
printf("Key of shared memory is %d\n",shmid);
shared_memory=shmat(shmid,NULL,0);
printf("Enter some data to write to shared memory\n");
read(0,buff,100);
strcpy(shared_memory,buff);
printf("You wrote : %s\n",(char *)shared_memory);
return 0;
}
```

OUTPUT:

```
Key of shared memory is 163845
Process attached at 0xb77d0000
Enter some data to write to shared memory
hello world
You wrote : hello world
```

11. Write C program to create a thread using pthreads library and let it run its function.

PROGRAM:

```
#include<unistd.h> //header file for sleep
#include<stdio.h>
#include<stdlib.h>
#include<pthread.h>

void *mythread(void *vargp)
{
 sleep(1);
 printf("welcome to Threads!! ·\n");
 return NULL;
}
int main()
{
 pthread_t tid;
 printf("before thread\n");
 pthread_create(&tid,NULL,mythread,NULL);
 pthread_join(tid,NULL);
 exit(0);
}
```

OUTPUT: