

Note: I didn't include the previous functions here. To see them you can check previous lessons.

## **pthread\_mutex\_init()**

Initialises a mutex referenced by mutex with attributes specified by attr.

## **SYNOPSIS**

```
#include<pthread.h>
```

```
pthread_mutex_t mutex;
```

```
int pthread_mutex_init(pthread_mutex_t *restrict mutex,const pthread_mutexattr_t  
*restrict attr);
```

OR

```
pthread_mutex_t mutex = PTHREAD_MUTEX_INITIALIZER;
```

## **USAGE**

```
#include <pthread.h>
```

```
pthread_mutex_t mutex;
```

```
pthread_mutex_init(&mutex, NULL);
```

OR

```
#include <pthread.h>
```

```
pthread_mutex_t mutex = PTHREAD_MUTEX_INITIALIZER;
```

## **LIBRARY**

POSIX thread library: -lpthread

## **pthread\_mutex\_lock()**

Locks the mutex and if the mutex is already locked, the calling thread blocks till the mutex becomes available.

## **SYNOPSIS**

```
int pthread_mutex_lock(pthread_mutex_t *mutex);
```

## **USAGE**

```
pthread_mutex_lock(&mutex);
```

## **LIBRARY**

POSIX thread library: -lpthread

## **pthread\_mutex\_unlock()**

Unlocks the mutex.

### **SYNOPSIS**

```
int pthread_mutex_unlock(pthread_mutex_t *mutex);
```

### **USAGE**

```
pthread_mutex_unlock(&mutex);
```

### **LIBRARY**

POSIX thread library: -lpthread

## **pthread\_mutex\_destroy()**

Destroys a mutex object referenced by mutex.

## **SYNOPSIS**

```
int pthread_mutex_destroy(pthread_mutex_t *mutex);
```

## **USAGE**

```
pthread_mutex_destroy(&mutex);
```

## **LIBRARY**

POSIX thread library: -lpthread