

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

## **pthread\_cond\_init()**

Initializes the condition variable referenced by the cond with the attributes specified by attr. If attr is NULL, default condition variable attributes are used

## **SYNOPSIS**

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

```
pthread_cond_t cond;
```

```
int pthread_cond_init(pthread_cond_t *cond, const pthread_condattr_t *attr);
```

OR

```
pthread_cond_t cond = PTHREAD_COND_INITIALIZER;
```

## **USAGE**

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

```
pthread_cond_t cond;
```

```
pthread_cond_init(&cond, NULL);
```

OR

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

```
pthread_cond_t cond = PTHREAD_COND_INITIALIZER;
```

## **LIBRARY**

POSIX thread library: -lpthread

## **pthread\_cond\_destroy()**

Destroys the condition variable referenced by the cond with the attributes specified by attr. It is safe to destroy when no threads are running on it.

### **SYNOPSIS**

```
#include<pthread.h>

pthread_cond_t cond;

int pthread_cond_destroy(pthread_cond_t * cond);
```

### **USAGE**

```
#include <pthread.h>

pthread_cond_t cond;

//Assume you initialized it.

pthread_cond_destroy(&cond);
```

### **LIBRARY**

POSIX thread library: -lpthread

## **pthread\_cond\_wait()**

Used to block on condition variable

### **SYNOPSIS**

```
#include<pthread.h>

pthread_cond_t cond;

int pthread_cond_wait(pthread_cond_t *cond, pthread_mutex_t *mutex);
```

### **USAGE**

```
#include <pthread.h>

pthread_cond_t cond;

//Assume you initialized condition and created the mutex

pthread_cond_init(&cond, &mutex);
```

### **LIBRARY**

POSIX thread library: -lpthread

## **pthread\_cond\_signal()**

Used to unblock threads blocked on condition variable.

### **SYNOPSIS**

```
#include<pthread.h>

pthread_cond_t cond;

int pthread_cond_signal(pthread_cond_t *cond);
```

### **USAGE**

```
#include <pthread.h>

pthread_cond_t cond;

pthread_cond_signal(&cond);
```

### **LIBRARY**

POSIX thread library: -lpthread

## **pthread\_cond\_signal()**

Used to unblock at least one of the threads blocked on condition variable.

### **SYNOPSIS**

```
#include<pthread.h>

pthread_cond_t cond;

int pthread_cond_signal(pthread_cond_t *cond);
```

### **USAGE**

```
#include <pthread.h>

pthread_cond_t cond;

pthread_cond_signal(&cond);
```

### **LIBRARY**

POSIX thread library: -lpthread

## **pthread\_cond\_broadcast()**

Used to unblock all of the threads blocked on condition variable.

### **SYNOPSIS**

```
#include<pthread.h>

pthread_cond_t cond;

int pthread_cond_broadcast(pthread_cond_t *cond);
```

### **USAGE**

```
#include <pthread.h>

pthread_cond_t cond;

pthread_cond_broadcast(&cond);
```

### **LIBRARY**

POSIX thread library: -lpthread