

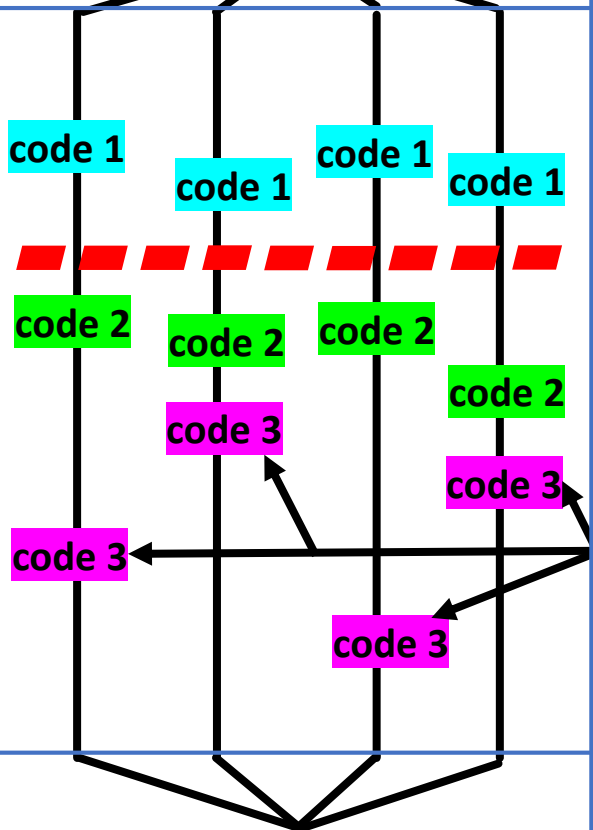
```
pthread_mutex_t mutex;  
pthread_mutex_init(&mutex, NULL);
```

```
pthread_barrier_t barrier;  
pthread_barrier_init(&barrier, NULL, num_threads);
```

```
pthread_t thread;  
pthread_create(&thread, NULL, threadFunction, arg);
```

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

```
void * threadFunction(void* arg)  
{  
    code 1  
    pthread_barrier_wait(&barrier);  
    code 2  
  
    pthread_mutex_lock(&mutex);  
    code 3  
    pthread_mutex_unlock(&mutex);  
}
```



Any **code 2** must execute **after** all **code 1**

When **code 3** starts execution it must end before it can start on a different thread

```
pthread_join(thread, NULL);  
pthread_barrier_destroy(&barrier);  
pthread_mutex_destroy(&mutex);
```

Compiling:
gcc main.c -pthread
Number of cores:
cat /proc/cpuinfo