// teacher   create class

```
lock(mutex)
  teacher_num ++;
  while (student_num < 70)
      wait(cr_teacher, mutex)
```

// start class
```
if (teacher_num == 1)
    signal(cr_student)

unlock(mutex)
```


// student   join class

```
lock(mutex)

student_num ++;

if (student_num == 70)
        signal(cr_teacher)
wait(cr_student, mutex)

signal(cr_student)

unlock(mutex)
```

// start class

int student_num=0 &

teacher_num = 0

mutex = 1

Condition variable =

cv_student, cv_teacher

تعارف اولاد

```
// Join class                          // create class

    lock (mutex)                           lock(mutex)
    student_num++;                         teacher_num++;
    while ( teacher_num ==0)               while( student_num <70)
                &                             wait(&cv_student
        wait ( & cv_ teacher, mutex)                            ?
                                              mutex)
     if (student_num == 10)
         signal (cv_student)

    unlock (mutex)                         unlock (mutex)
    //start class                          //start class
                                   lock(mutex) teacher_num --;
    lock (mutex)
        student_num --;                    if( teacher_num==1)
                                              signal (cv_teacher)

    unlock (mutex)                         unlock (mutex)


    int student_num=0 ,             Condition variable =
    teacher_num = 0
                                    cv_student, cv_teacher
    mutex =1
                                         قارفة ارل
```