

```
1  /**
2   * PC0 2015 Ex. 12 (c) YTA Yann Thoma
3   * Coordination (Bridge Manager)
4   * Version: semaphore-only, version 1.
5   * Objectif: NON respecté
6   * Commentaire: 1/10 de camion peut passer le pont.
7   * Interblocage possible des camions.
8   */
9
10 #define TRUCK_WEIGHT 10
11 #define CAR_WEIGHT 1
12
13 class BridgeManager {
14     private:
15         // blocage/file d'attente pour les tonnes supplémentaires
16         QSemaphore* counter;
17     public:
18         BridgeManager(unsigned int maxWeight) {
19             counter = new QSemaphore(maxWeight);
20         }
21
22         ~BridgeManager() {
23             delete counter;
24         }
25
26         void carAccess() {
27             acquire(CAR_WEIGHT);
28         }
29
30         void carLeave() {
31             release(TRUCK_WEIGHT);
32         }
33
34         void truckAccess() {
35             acquire(CAR_WEIGHT);
36         }
37
38         void truckLeave() {
39             release(TRUCK_WEIGHT);
40         }
41
42     protected:
43         void acquire(unsigned int weight) {
44             for(int i = 0; i < weight; i++) {
45                 counter->acquire();
46             }
47         }
48
49         void release(unsigned int weight) {
50             for(int i = 0; i < weight; i++) {
51                 counter->release();
52             }
53         }
54 };
```