

# Smart pointers and containers

Example program lab11\_car\_sales.cpp has many memory leaks because new is called multiple times without calling delete. Your task is to fix the memory leaks by replacing all raw pointers that are stored in containers with smart pointers (shared\_ptr / weak\_ptr) to remove the need to call delete.

Program must be modified so that:

- A dealer “owns” a car – has a shared\_ptr to the car.
- Website holds a weak\_ptr to a car.
- Website.print() removes all sold cars (expired weak\_ptr) **before** printing the listing of cars advertised on the site.
- Website.remove() is to be removed because it is no longer needed.
- Website’s lifetime is determined by the users. If there is at least one user, the site should not be destructed.