Corso di Laboratorio di Programmazione

Esercitazione 1 – Classi
13/11/2019

Nota: i quesiti e gli esercizi seguenti sono tratti (ma non tradotti) dal libro di testo.

Discussione

A coppie, rispondete alle seguenti domande (Review, cap. 17, p. 623 sgg.):

1. What is a leak?
2. What is a cast? When do we need to use one?
3. What is a doubly-linked list?
4. What is *this* and when do we need to use it?
5. How can a void* be used?
6. What is the difference between a static_cast and a reinterpret_cast? When should they be used?

Esercizi

1. Consider the class developed in Lab 2 and modify it in order to remove the constraint of a fixed number of elements. Then add:
   1. A default constructor;
   2. A push_back member function that adds an element to the back of the vector. What should you do if there is no free space left? Hint: the memory available for storing elements and the actual number of elements stored are not the same. They should be both recorded and managed in the class;
   3. A reserve function taking an int as argument. It resizes the buffer to the given dimension, if the number or elements stored is smaller. Otherwise, reserve reduces the buffer size to the number of elements stored.