VG101 — Introduction to Computer and Programming

Lab 8

Manuel — UM-JI (Fall 2017)

Goals of the lab

- Deal with an external library
- Write classes
- Practice inheritance and polymorphism

Ex. 1 — *Stack, vector, queue, and array*

1. Write three C++ functions which read strings from the standard input and print them in the reverse order. The first program should be implemented using an array, the second one using a vector and the third one using a stack. Argue on the best choice in the README file.
2. Write three C++ functions which read strings from the standard input and print them in the input order. The first program should be implemented using an array, the second one using a vector and the third one using a queue. Argue on the best choice in the README file.

Ex. 2 — *Classes and OpenGL*

Write a C++ class to draw and move a car using the geometrical classes from lab 7 exercise 2. The car should be similar to the one below, and should move back and forth from left to right. This can be easily achieved by moving all the geometrical object it is composed of. More complex car shapes can be implemented.

Hint: the display can be updated using the function `glutTimerFunc`