**VALGRIND**

The Valgrind tool suite provides a number of debugging and profiling tools that help you make your programs faster and more correct. The most popular of these tools is called Memcheck. It can detect many **memory-related errors** that are common in C and C++ programs and that can lead to crashes and unpredictable behaviour.

Actually, Valgrind is a wrapper around a collection of tools that do many other things (e.g., cache profiling). However, here we focus on the default tool, memcheck. Memcheck can detect:

* Use of uninitialized memory.
* Reading/writing memory after it has been freed.
* Reading/writing off the end of malloced blocks.
* Reading/writing inappropriate areas on the stack.
* Memory leaks -- where pointers to malloced blocks are lost forever.
* Mismatched use of malloc/new/new [] vs free/delete/delete [].

In order to install valgrind in your system type **sudo apt install valgrind.**

To run the valgrind type **valgrind ./executed filename.**



