CIS*2750
Assignment 2
Deadline: Thursday, March 6, 11:59pm
Weight: 16.7%

Assignment structure and submission details

Submission structure

The submission must have the following directory structure:

`assign2/`	- contains the `Makefile` file.
`assign2/bin`	- should be empty, but this is where the `Makefile` will place the shared lib files.
`assign2/src`	- contains `VCParser.c` , `LinkedListAPI.c`, and your additional source files.
`assign2/include`	- contains your additional headers. Do not submit `VCParser.h` and `LinkedListAPI.h`. If you do, they will be deleted and replaced with the standard ones that are posted on the course website.

Makefile

You will need to provide a Makefile with the following functionality:
- `make parser` creates a shared library `libvcparser.so` in `assign1/bin`
- `make clean` removes all `.o` and `.so` files
- You are welcome to add additional targets for your own purposes, e.g. testing. We will not run them.

Evaluation

Your code will be tested by an automated harness. You will submit a Makefile, which will be used to produce a shared library. This library will then be tested on the standard CIS*2750 Docker images by the TAs, who will use a precompiled executable file containing the test harness, as well as another executable file with simple memory leak tests. Your library must implement the assignment API exactly as specified, or you will get run-time errors because the executable files will not find functions in the library that they expect.

Your code must compile, run, and have all of the specified functionality implemented. Any compiler errors will result in the automatic grade of **zero (0)** for the assignment. Infinite loops will also result in a grade of **zero (0)**.

Submission

Submit your files - source code and Makefile, as described above - as a Zip archive using Moodle. File name must be `A2FirstnameLastname.zip`. Please do not use any other archive formats, or you will lose marks.

Late submissions: see course outline for late submission policies.

This assignment is individual work and is subject to the University Academic Misconduct Policy.
See course outline for details)

Assignment 2 grading scheme

Functions (graded using an automated test harness): 100%

- Approximately 20 tests, worth 2-5% each
- The preliminary harness contains approximately half of these test cases
- As stated in the Assignment 1 and 2 descriptions, all functions listed in `VCParser.h` **must** be implemented - even if the implementation is incomplete or buggy. Failure to do so may crash the test harness, and result in an automatic grade of zero.

Total: 100%

You will lose marks for run-time errors and incorrect functionality. Additional deductions include:

- Any compiler warnings: -10%
- Any memory leaks: -10%
- Any memory errors other than leaks, e.g. under-allocating memory, using uninitialized variables, etc.: -10%
- Any additional failures to follow submission instructions: -5%

- Any compiler errors: automatic grade of **zero** (0) on the assignment.
- Failure to run the shared library with the test harness: automatic grade of **zero** (0) on the assignment.

You must not modify `VCParser.h` and `LinkedListAPI.h`. The files used to grade your A2 will be the files that were provided in the Assignment 1 description. If you modify them, your code may fail to compile or to run with the automated test harness, both of which will result in a grade of **zero** (0) for the assignment.