Remote UltraGrep

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| Course | INFO-5104 C++ Advanced Topics |
| Professor | Garth Santor |
| Due | December 14, 2020 |
| Weight | 15% |

# Project Description

Create two C++ 17 applications that provide remote access using TCP/IP to ultragrep from project #2.

The server application’s interface is:  
ugrepserver [ip]

Where [ip] is an optional IP address of the host system. If no address is provided assume “127.0.0.1”.

Example:

ugrepserver 192.168.2.209

The client application’s interface is:  
ugrepclient [ip]

Again, if the IP address is not supplied, assume 127.0.0.1.

Once started the **ugrepclient** will ask for grep command from cin (one per line) in the format:

* *remotefolder* *regex* *.exts*

I.e. just the parameters from project #2.

The server will shut down when the client sends it (via TCP/IP) the a “:quit” command.

# Grading Criteria

This project will be graded using the following criteria.

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| --- | --- | --- |
| **Functional Requirements** |  |  |
| ugrepserver satisfies command line interface | 10% | 10% |
| ugrepserver satisfies “quit” command | 10% | 10% |
| ugrepserver processes and transmits “greps” | 10% | 10% |
| ugrepserver can perform more than one “grep” per session | 10% | 10% |
| ugrepclient satisfies command line interface | 10% | 10% |
| ugrepclient satisfies console interface | 10% | 10% |
| Ugrepclient receives and displays “grep” results | 10% | 10% |
| ugrepclient can perform more than one “grep” per session | 10% | 10% |
|  |  |  |
| **Non-functional requirements** |  |  |
| Communications, UI occupy separate threads (client). | 10% | 10% |
| Wrap the socket operations in a class (Façade). | 10% | 10% |
| **Penalties** |  |  |
| Penalties from *C & C++ Grading Guide* ***v2.2.0***  A guide to code/comment style can be found at [C++ Style](http://www.gats.ca/downloads/CPPStyle.pdf) | Various |  |
| **Total** | **100%** | **100%** |

# Submission

1. Submit **entire Visual Studio project directory** to Fanshawe Online
   1. Delete ***all*** debug and release directories.[[1]](#endnote-1)
   2. Submit in a .ZIP, .7z archive file.

1. Alternatively, you can ‘clean’ your project for submission by downloading ‘vsclean’ a Visual Studio Solution Cleaner from [www.gats.ca](http://www.gats.ca) . [↑](#endnote-ref-1)