Sprint #0 Report

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1. Key Decisions

Object-oriented programming language	**C++**
GUI library	**FLTK**
IDE (Integrated Development Environment)	**VSCodium**
xUnit framework	**Catch2**
Programming style guide	**GNU Coding Standards**
Project hosting site	**Github.com**

GitHub Project Link: https://github.com/johniscool1/cs-449-project/tree/master
Sprint 0 pre-built windows executables: https://github.com/johniscool1/cs-449-project/releases/tag/sprint0

2. Unit Testing

For Unit testing, I used Catch2. I choose it becuase I thought it was a lot simplier than the other ones I looked at and the source code was only 2 files.

```
CMakeFiles/ my_tests    src/
jchir@jchir-desktop:~/Documents/c++/unit_testing_ex$ ./my_tests
Randomness seeded to: 3478620765

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my_tests is a Catch2 v3.7.0 host application.
Run with -? for options

-------------------------------------------------------------------------------
Numbers, 2 and 2 are subtracted
-------------------------------------------------------------------------------
/home/jchir/Documents/c++/unit_testing_ex/src/tests.cpp:15
...............................................................................

/home/jchir/Documents/c++/unit_testing_ex/src/tests.cpp:20: FAILED:
  REQUIRE( test1.subtract() == 0 )
with expansion:
  4 == 0

===============================================================================
test cases: 2 | 1 passed | 1 failed
assertions: 2 | 1 passed | 1 failed

jchir@jchir-desktop:~/Documents/c++/unit_testing_ex$
```

https://github.com/johniscool1/cs-449-project/tree/master/sprint0/unit_testing_ex

3. GUI programming

I choose FLTK for the GUI library becuase it is similiar to Xforms (x11 library) which I have used before. I ultimatly choose FLTK over Xforms becuase FLTK is cross platform and more modern compared to Xforms.

https://github.com/johniscool1/cs-449-project/tree/master/sprint0/gui_fltk_example