

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 because I thought it was a lot simpler 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

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

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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 because it is similar to Xforms (x11 library) which I have used before. I ultimately choose FLTK over Xforms because FLTK is cross platform and more modern compared to Xforms.



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