

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>

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