Quad Solver Stories

CS 4900

January 30, 2017

Anna Stephens, Mike Bell, Mariia Kravtsova

**Introduction**

This project is to create a program to solve the quadratic equation for computer scientists. This is going to be ran from a command line. This needs to be ran on linux using GCC -wall -pedantic. We will be using CUnit for testing and make for automation. For our coding standard we are going to use C99. We anticipate this project will be complete by the end of April.



|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Function** | **Time to Complete** | **Risk** | **Actual Time** | **% Complete** |
| Program checks for valid input and informs the user of bad input | 30 min | 2 | 30 min | 100% |
| Input should be “legal” C floats, single precision | 30 min | 2 | 30 min | 100% |
| No input of infinite or NaN allowed | 30 min | 2 | 30 min | 100% |
| Results should be to full single precision accuracy | 2 hr | 2 | 1.5 hr | 100% |
| If determinant is greater than 0, the roots are real and different.  If determinant is equal to 0, the roots are real and equal.  If determinant is less than 0, the roots are complex and different. |  |  |  |  |
| Get input from user at command line | 1 hr | 1 | 1 hr | 100% |
| Output to command line | 30 min | 1 | 20 min | 100% |
| Test output accuracy and log results |  |  |  |  |
| Implement unit tests and log results |  |  |  |  |