Quadratic Solver

CS4900

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The Quadratic solver is a command line application for linux that will calculate the real roots of a quadratic exquation.

It will be written in C and compiled using gcc with a c99 standard. It will be maintained in a git repository.

The user will input the constants. The application will then find the roots using the quadratic formula. If the roots are real numbers, the application will output the roots.

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| --- | --- | --- | --- | --- |
| Story | Risk | Est. Time | Actual Time | % Complete |
| For the equation ax2+bx+c, the application shall accept the constants a, b, and c as input from the user | low | 1 hr |  | 0 |
| The users input shall be validated, the user shall be informed if the input is valid, and given a chance to reenter correct input. The input should be floats >=0. The constant a must be >0. | low | 2 hr |  | 0 |
| The application shall output the roots, if they are real. If the roots are not real, it shall inform the user of that. | low | 1 hr |  | 0 |
| The roots shall be calculated to the greatest precision possible. The user will be informed if the result is outside the range storable as a float type. | moderate | 3hr |  | 0 |
| The application shall inform the user of the degree of error in the calculation. | moderate | 1hr |  | 0 |
| Release 1 |  |  |  |  |