**CS 4900**
**Project**: Quad Solver
**Stories**
**Date:** September 29, 2019

**Team**

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**Client**: JKK Consulting
**Contact**: John Kapenga

**Introduction**:
JKK Consulting is an engineering firm that needs a quadratic equation solver developed. Specifically this will solve the equation $ax^2+bx+c = 0$. They would like this developed for a linux operating system. The requirements specify that their solver be as accurate as possible for floating point input up to four significant figures. The solver will take in three floating point values as input and return two real roots as the solution for the quadratic equation or return an error.

**Story #1**: An engineer will run the quad solver and enter inputs *a, b,* and *c.* The engineer will be returned with a value $x_1$ and a value $x_2$ or an error message.

**Story #2**: An IT engineer will install the quadratic solver program to desktop computers running linux.

**Story #3**: Optionally, an IT engineer has access to a log file that may be used to figure out potential issues.

| Story | Time to Complete | Risk (low - 1 high - 10) | Actual Time | % Complete |
|---|---|---|---|---|
| S1 | 8 Weeks | 7 | TBD | 0 |
| S2 | 1 Week | 4 | TBD | 0 |

| | | | | |
|---|---|---|---|---|
| S3 | 1 Week | 2 | TBD | 0 |

**Requirements**:

*Hardware Requirements*

- **OS:** Linux Ubuntu
- **Compiler:** GCC

*Technical Requirements*

- Will be run on a single line with inputs separated white spaces
- No more than 4 significant digits
- Leading and trailing 0s don’t count as significant digits
- Normalized IEEE-F32
- Coding Standards - TBD