CS 4900

Project: Quad Solver

**Stories** 

Date: October 13, 2019

#### **Team**

Name	Email	Phone
Spencer Hunt	spencer.r.hunt@wmich.edu	269-223-2706
Ibrahim Itani	ibrahim.itani@wmich.edu	269-501-5405
Ryan Cwynar	ryan.m.cwynar@wmich.edu	616-460-2378
Noah Wochaski	noah.m.wochaski@wmich.edu	586-480-4024

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 #6**: An IT engineer will run a makefile to compile the C code prior to it being used to run the quad solver.

**Story: #7:** The end user will run the help function and verify that all components make sense and are working accordingly.

**Story #8**: The IT engineer will run a system test confirming that there are no bugs in the completed build. This will be done after the unit testing has been completed.

Story	Time to Complete	Risk (low - 1 high - 10)	Actual Time	% Complete
S6	2 w	3	TBD	0
S7	1 week	2	TBD	0
S8	4 weeks	7	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