**Title: SOLVING A QUADRATIC EQUATION** Date: 10/15/2018

Team Members: Safwan Kadir, David Moussalli, Dakota Grant

**Requirements**

Language: C

Platform: Linux

Build System: Make File

**Stories**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Description** | **Time** | **Risk (1-5)** | **% Complete** | **Total Time** |
| We expect the program to validate and have quad precision | 2 weeks | 4 | 30% |  |
| We expect the system to warn us if there is any chance of the system rounding off the numbers and providing us with an inaccurate result | 6 weeks | 3 | 50% |  |
| We will set our version control as Git and host it on GitHub. We also will have our version control for documents on OneDrive as it has appropriate Version Control properties. | 3 weeks | 2 | 40% |  |
| We plan to have Unit Testing, Coverage Testing, Functionality Testing and Usability Testing. All Unit Testing will be done extensively for each module with annotations and will be done as module/functions are developed | 4 weeks | 4 | 15% |  |
| We expect the program to run with –Wall –Wpedantic for make and expect no errors. | 4 weeks | 4 |  |  |

**Pseudocode Snippet for QuadSolver:**

QuadSolver

Define double a, b, c, root1, root2, discriminant

Get a,b,c from user

discriminant = b\*b-4\*a\*c

If discriminant>0

Root1 = (-b+sqrt(discriminant))/(2\*a)

Root2 = (-b-sqrt(discriminant))/(2\*a)

Print root1 and root2

Else if discriminant ==0

root1 = root2 = -b/(2\*a)

Print root1 and root2 which are equal

End If

//code has not taken into factor of roots that are not real

End QuadSolver