Project “Quadratic Equation Solver”

1. Build API server (name QESolver) to solve an equation of the form "$ax^2 + bx + c = 0$"
   Requirements to API server:
   - Should accept POST request with **token**, ***a, b, c.***
   - Validate the token as **token == SHA1(“a”.”b”.”c”)**
   - Create DB table to log any request to the Server if the token is valid. Store **token**, ***a, b, c***
   - Create DB table to log any a response of the QESolver server.
   - If the **QESolver** received same request, then do not create new record in the DB. Increase number of received request for the same **token** and return same response.
   - Validate **a, b, c:** allowed only Integer values, **a** can't be 0
   - Create JSON response with Status(Integer, -1 error), Message (String), X1, X2 (two real solutions)
2. Build Client Web site to enter values of **a, b, c** and make API request to API **QESolver** server

   Requirements to Web Site:
   - Input fields should be in form **[a]x² + [b]x + [c]** where **[a], [b] [a]** text fields
   - JavaScript validation for **a, b, c**: allowed only Integer values, **a** can't be 0
   - Depends of a response from API **QESolver** server should be created 4 views: Error, Single solution, Two Solution, No Solution

Project should be implemented on base of CodeIgniter framework. To store logs should be used MySQL.