**Specifications Document**

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| **Requirements** | * A program that will determine the type of a triangle. It should take the lengths of the triangle's three sides as input, and return whether the triangle is equilateral, isosceles or scalene. * Solutions should showcase problem solving skills and structural considerations that can be applied to larger and potentially more complex problem domains. |
| **Assumptions** | * The inputs to the program will be provided at the run time. * The inputs can be double number with decimals, however the program will round it to defined decimal value and process the instructions. |
| **Design** | **Program Algorithm:**   * The inputs captured at runtime are rounded off to predefined decimal places allowed. * Any exception at converting it to double will throw an exception, stating invalid input. * Check whether the inputs are valid or not i.e. positive, do they make up a triangle etc. * Classify them into Equilateral, Isosceles and Scalene. * Big Decimal used for double value comparison where required. |
| **Error Codes** | 1. NOT\_A\_NUMBER = Input entered is not a number. Program Exits. 2. NON\_POSITIVE = Input entered is not a positive number. Program Exits. 3. INVALID\_CASE = Input provided does not make up a triangle. |
| **Junit Class** | TriangleChallengeTest.java. |