The designed Calculator is capable of performing the following operations.

1. Arithmetic Expression Evaluation :

In this operation it take the expression as input and gives the resultant value of the expression.

Ex: input=2+3\*6 and output=20

There is no length limit.

1. Few Basic operations like addition, subtraction, multiplication, division, integer division and modulus of two numbers are performed effectively.
2. Power and nth root of numbers can also be performed.
3. Factorial and prime number where the factorial operation gives the factorial value of given number and prime function will give whether the given number is prime or not.
4. It also perform matrix operations like matrix addition, subtraction and multiplication.
5. It consists of variance function which gives the sum, list of square and cube of each elements of input list, mean, median, mode, variance and standard deviation of the given input list.
6. It has the ability to perform permutations and combinations on the given list of elements of required length.
7. It can perform trigonometric calculations like Sine,Cosine and Tangent values of given value.
8. It can also perform logarithm with the given base value.

All these functions are given in a while loop so that the user can perform any number of operations as he likes. Exception handles are used where it feels necessary to handles all types of exceptions. Code optimization techniques were used effectively using map, reduce and other code optimization techniques.

The unique cases of this computer is it can perform operations on arithmetic expression, matrix operations, trigonometric operation and prime number.