

## Assignment 3

- In this assignment, you have to implement Arithmetic Operations for a very large number (Even larger than long long int).
- Basic operations which are needed to be implemented are: Addition, Subtraction, Multiplication and Division.
- Other operations includes: square root, Absolute value and power.
- Programming languages allowed are ANSI-C and C++.
- You are only allowed to use stdio, string and other libraries which inherently doesn't implement big number library.
- Your submission should contain a zipped folder whose name is your entry number and should contain the folder having all the .c /.cpp files and a makefile.
  - e.g. Your submission will have a zip folder(2018MCS2018.zip) which contains another folder(2018MCS2018) having all codes and makefile
- Your main executable should be named as mainfile which is made by make command.
- mainfile should take two command line arguments i.e. <Name of Input file> and <Name of Output file>
  - Your code should run like: `./mainfile input.txt output.txt`
- **Input.txt** (i.e. the input file) will contain the different queries, corresponding to each arithmetic operations.
- **Query Format:** Each line of input file corresponds to a query which is in the format:
  - `<Operator><SPACE> <Operand 1><SPACE> <Operand 2 if required>`
- Operator can be one of the strings: ADD, SUB, MUL, DIV, SQRT, ABS, POW
- Operand will be String representing a floating point decimal number.
- For each query, you have to print a single lined output in Output.txt which is also a string corresponding to floating point decimal number.
- You need to handle the cases where the operand or results are negative values.
- Please refer to sample input files with corresponding output files for further details.
- For floating point results the precision should be correct up to 20 digits after decimal point.