# Project: Integer arithmetic with arbitrarily large numbers

# Executive summary or abstract

This project helps in calculating arithmetic of large integers using Array List as the primary Data structure. Addition, Subtraction, Power, Multiplication are the arithmetic operations focused.

# Methodology - avoid code fragments from your program; simple pseudocode is fine

The pseudocodes are taken from class discussions.

# Development platform/experimental setup

Eclipse IDE running on 8GB RAM PC with i5 processor.

# Test results - avoid cases with long outputs; give running times

//Addition

HugeIntegers a = **new** HugeIntegers("10");

HugeIntegers b = **new** HugeIntegers("10");

HugeIntegers c = **new** HugeIntegers();

c = c.*add*(a, b);

System.***out***.println(c);

//Subtraction

HugeIntegers a1 = **new** HugeIntegers("-100");

HugeIntegers b1 = **new** HugeIntegers("10");

HugeIntegers c1 = **new** HugeIntegers();

c1 = c1.*sub*(a1, b1);

System.***out***.println(c1);

//Product

HugeIntegers a2 = **new** HugeIntegers("1000");

HugeIntegers b2 = **new** HugeIntegers("1000");

HugeIntegers c2 = **new** HugeIntegers();

c2=c2.product(a2, b2);

System.***out***.println(c2);

//Power

HugeIntegers a3 = **new** HugeIntegers("7");

Long b3 = **new** Long(2);

HugeIntegers c3 = **new** HugeIntegers();

c3=c3.power(a3,b3);

System.***out***.println(c3);

Sample Results for the above method call:

20

-110

1000000

49

# References

Class Notes

Stackoverflow.com