Assignment 01 - A small step of the huge one

Create a `class` called *HugeInteger* for performing add & subtraction operations with huge integers. Please extend following incomplete `class` to do above works. Now, use provided driver program (main_hw1.cpp) to test your work. **(Due date: 4/5)**

```
#define MAX 1000 //< max length of huge integer
class HugeUInteger
{
public:
   HugeUInteger (); //< default constructor
   HugeUInteger (HugeUInteger &in); //< copy constructor
   void random( unsigned int size ); //< randomly generate an integer
   void add(HugeUInteger &add); //< add a number
                                //< (Use ZERO to replace negative result)
   void subtract(HugeUInteger &sub); //< subtract a number
   void print(); //< print out the huge unsigned integer
private:
///add something to stores a huge integer (dynamic array or std::vector or …)
///add some helper functions
};
```

Sample outputs:

```
Enter seed: 13
Enter the lengths of three huge integers: 20 18 16
N1: 18699035430339962866
N2: 338925430226058207
N3: 4175151280964515
N1 + N3 = 18703210581620927381
N2 - N3 = 334750278945093692
```

```
Enter seed: 21
Enter the lengths of three huge integers: 9 5 7
N1: 930123690
N2: 54757
N3: 3584963
N1 + N3 = 933708653
N2 - N3 = (negative)0
```

A common workflow of preparation of your homework

(In the following text, we assume your student ID is s1234567 and # is the NUMBER of homework in one digit, Please replace it with your student ID and follow the steps exactly!)

1. **Clone** your private repository of hw# to your home directory on server or another suitable location from our organization on GitHub (https://github.com/YZU-CSE-CS114-Computer-Programming-II)
2. After you start to deal with your homework, **add** a file s1234567hw#_main.cpp as your **main program** and s1234567 hw#_report.md as your **report** (optional). Then, **commit** it! (Don't forget to **push** it onto GitHub, too)
   *.Any of your code should be prefixed with "s1234567hw#_". For example: s1234567hw3_Vecotr.h
3. Complete your program and write your report (if necessary) with Markdown.
   *. Please commit your homework when you have any progress.
4. Make sure you have complete the assignment and prepare a clear demo in your report. Do it ON YOUR OWN and ON TIME.

How to complete your report with markdown?

*In this course, please use markdown to complete your reports and commit it with your homework.

A powerful on-line editor: https://stackedit.io (Check this link first)

Markdown is a markup language with plain text formatting syntax designed so that it can be converted to HTML and many other formats using a tool by the same name.

Markdown in GitHub:

https://help.github.com/articles/markdown-basics/ (tutorial)

https://help.github.com/articles/github-flavored-markdown/ << GitHub Flavored Markdown!

Complete documents of Markdown syntax:

http://daringfireball.net/projects/markdown/syntax (Chinese version: http://markdown.tw)