

### Offline 3: Operator Overloading

\*\*\* You are not allowed to use String class

Write a C++ program to implement a class called "StringMath" so that the following code from the main function can produce correct output. "StringMath" has a private character pointer to store a character string. Ensure that the character string will only store a positive integer number (e.g., "457").

```
class StringMath
{
    char* p;
    public:
    // Add necessary constructors and destructors and functions
    ...
}
int main()
{
    StringMath S1;
    StringMath S2("123");
    StringMath S3("757")
    StringMath S4("220")
    StringMath S5;
    int n=345;
    S1=S4;
    //Print the character string of S1 and S4
    S1=S2+S3+S4;
    //Print the character string of S1, S2, S3 and S4, where S1 contains the character string: "1100"
    S5=S4=S3;
    // Print the character string of S5, S4 and S3
    if(S3 > n )
    {
        S5= S3+n;
    }
    // Print the character string of S5, where S5 contains the character string: "1102"
    S5= n+S2;
    // Print the character string of S5, where S5 contains the character string: "468"
    if(S5 > S2)
    {
        S5++; //Assume prefix increment
    }
    // Print the character string of S5, where S5 contains the character string: "469"
}
}
```

If you have any question regarding the offline email me at [tanzimahashem@gmail.com](mailto:tanzimahashem@gmail.com)