

Assumptions:

natural number: 0,1,2,3...

Tasks:

1. check whether string is a natural number or not

- string is not a natural number, return false
  - ◆ string is empty or null
  - ◆ string is not a natural number - string contains at least one non-number character
    - ◆ string is not a number
    - ◆ string is a number but not a natural number
- string is a natural number, return true

2. sum two string

- one string is not a natural number while the other string is a natural number, return the natural number String
- both strings are not natural numbers, return 0
- both strings are natural numbers, return the sum of the two numberString (convert string to int array)
  - ◆ both string contain only one number
    - ◆ sum without carry
    - ◆ sum with carry
  - ◆ one string contains one number, the other string contains more than one number
    - ◆ sum without carry
    - ◆ sum with one carry
    - ◆ sum with two carries

- ◆ both strings contain more than one number

Data Structure:

String1: String - int[]

String2: String - int[]

SumString: int[]