```java
1   /*Author: Bochen (mddboc@foxmail.com)
2   Last Modified: Tue Apr 10 22:28:45 CST 2018*/
3
4   /*Implement atoi to convert a string to an integer.
5
6          Hint: Carefully consider all possible input cases. If you want a challenge,
               please do not see below and ask yourself what are the possible input cases.
7
8          Notes: It is intended for this problem to be specified vaguely (ie, no given
               input specs). You are responsible to gather all the input requirements up
               front.
9
10
11
12         Requirements for atoi:
13
14         The function first discards as many whitespace characters as necessary until
               the first non-whitespace character is found. Then, starting from this
               character, takes an optional initial plus or minus sign followed by as many
               numerical digits as possible, and interprets them as a numerical value.
15
16         The string can contain additional characters after those that form the
               integral number, which are ignored and have no effect on the behavior of
               this function.
17
18         If the first sequence of non-whitespace characters in str is not a valid
               integral number, or if no such sequence exists because either str is empty
               or it contains only whitespace characters, no conversion is performed.
19
20         If no valid conversion could be performed, a zero value is returned. If the
               correct value is out of the range of representable values, INT_MAX
               (2147483647) or INT_MIN (-2147483648) is returned.*/
21
22
23  import java.lang.System;
24  import java.util.*;
25  import java.lang.Math;
26  import java.util.HashMap;
27
28
29  class ListNode {
30      int val;
31      ListNode next;
32
33      ListNode(int x) {
34          val = x;
35      }
36  }
37
38
39  public class Main {
40      public static void main(String[] args) {
41          String x = "1";
42
43          Solution solution = new Solution();
44
45          int receive = solution.myAtoi(x);
46
47
48          System.out.println("haha");
49
50      }
51
52
53  }
54
55
56  class Solution {
57
58      boolean minus = false;
59      int result = 0;
60
61      public int myAtoi(String str) {
```

```java
        if (str == null || str.length() == 0) {
            return 0;
        }

        int strLength = str.length();
        char[] chars = str.toCharArray();
        int i = 0;
        for (i = 0; i < strLength; i++) {
            if (chars[i] != ' ') {
                break;
            }
        }
        if (chars[i] == '+') {
            minus = false;
            i++;
        } else if (chars[i] == '-') {
            minus = true;
            i++;
        }


        int currentResult = 0;
        for (; i < strLength; i++) {
            if (chars[i] >= '0' && chars[i] <= '9') {
                if (!minus) {
                    currentResult = result * 10 + (chars[i] - '0');
                } else {
                    currentResult = result * 10 - (chars[i] - '0');
                }

                if (currentResult / 10 != result) {
                    result = (minus ? Integer.MIN_VALUE : Integer.MAX_VALUE);
                    return result;
                }
                result = currentResult;
            } else {
                break;
            }
        }


        return result;
    }
}
```