Leetcode Bootcamp HW - 2

1. String to Integers atoi

```python
class Solution(object):
    def myAtoi(self, s):
        """
        :type s: str
        :rtype: int
        """
        n = len(s)
        max_int= 2**31 - 1
        min_int= -2**31
        sign = 1
        index = 0
        while index < n and s[index] == ' ':
            index += 1

        if index == n:
            return 0

        if s[index] == '-':
            sign = -1
            index += 1
        elif s[index] == '+':
            index += 1

        result = 0
        while index < n and s[index].isdigit():
            dig = int(s[index])

            if sign == 1:
                if result > max_int//10 or(result == max_int//10 and
digit > 7):
                    return max_int
            elif sign == -1:
                limit_prefix = -(min_int) // 10
                if result > limit_prefix or (result == limit_prefix and
digit > 8):
                    return min_int

            result = result * 10 + dig
```

```python
                index += 1

        fin_result = sign * result

        return fin_result
```

2. Find all Anagrams in a String

```python
class Solution(object):
    def findAnagrams(self, s, p):
        """
        :type s: str
        :type p: str
        :rtype: List[int]
        """
        n_s = len(s)
        n_p = len(p)
        result = []

        if n_p > n_s:
            return result
        p_cnt = Counter(p)
        s_cnt = Counter(s[:n_p])

        if p_cnt == s_cnt:
            result.append(0)

        for i in range(n_p, n_s):
            char_in = s[i]
            char_out = s[i - n_p]
            s_cnt[char_in] += 1
            s_cnt[char_out] -= 1

            if s_cnt[char_out] == 0:
                del s_cnt[char_out]

            if p_cnt == s_cnt:
                result.append(i - n_p + 1)

        return result
```

3. Reverse Words in a String

```python
class Solution(object):
    def reverseWords(self, s):
        """
        :type s: str
        :rtype: str
        """
        words = s.split()
        return ' '.join(reversed(words))
```