Time complexity
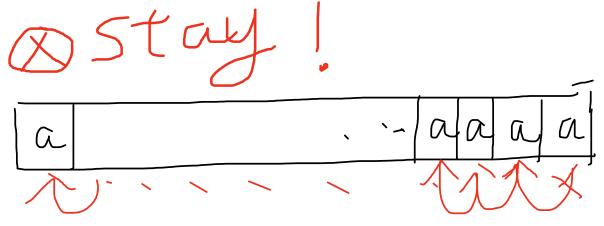
There is only one question left: why the time complexity is O(n) instead of O(n^2)?

It is impossible to developing from the beginning every time as when the cursor goes to the beginning it will stay there.

```
private static void computeTable(int[] table, int len, char[] word
    table[0] = -1;          Table[k] stores the place to go if current one doesn't match

    for (int i = 0; i < len; ++i) {
        int k = table[i];

        while (k >= 0 && word[k] != word[i]) {
            k = table[k];
        }

        table[i + 1] = k + 1;
    }
}
```

Why is it O(n) essentially?
Totally go back n steps at most!!!