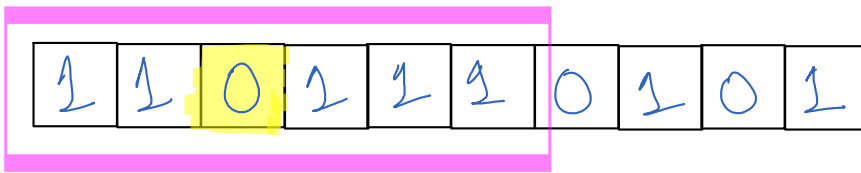


Longest sequence of 1's after flipping one bit

08 November 2021 10:54



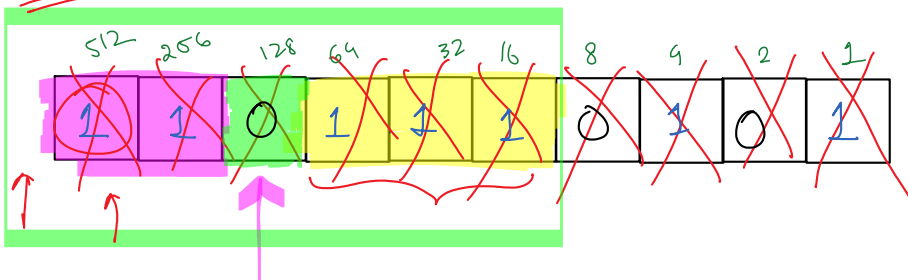
Case 1: $\rightarrow 3$
Case 2: $\rightarrow 5$
Case 3: $\rightarrow 6$
 $O(n^2)$

Flip a bit
 \rightarrow change a
0 to 1.

To find longest sequence of 1's

1. Iterate through all of the bits
 - a. If bit is '1' then increment current_count
 - b. If bit is '0' then reset current_count to 0
2. If current_count is greater than max_length
Then max_length = current_count

$n = 885$



Max_length = 2

Prev_max_length = 3

Current length = 2

$h = 0$

longest seq of 1's = $\text{Current Max_length} + \text{Prev max_length} + 1$

$O(n)$ \Rightarrow Time Complexity

Prev Max length will be updated if the next bit is 1

