

# Odd - Even Linked List

i/p  $\rightarrow$  <sup>1</sup>①  $\rightarrow$  <sup>2</sup>②  $\rightarrow$  <sup>3</sup>③  $\rightarrow$  <sup>4</sup>④  $\rightarrow$  <sup>5</sup>⑤  $\rightarrow$  x

o/p  $\rightarrow$  ①  $\rightarrow$  ③  $\rightarrow$  ⑤  $\rightarrow$  ②  $\rightarrow$  ④  $\rightarrow$  x

M-1  $\rightarrow$  Make new linked list

①  $\rightarrow$  ②  $\rightarrow$  ③  $\rightarrow$  ④  $\rightarrow$  ⑤  $\rightarrow$  x

L1 ①  $\rightarrow$  ③  $\rightarrow$  ⑤  $\rightarrow$  L2 ②  $\rightarrow$  ④  $\rightarrow$  x  
 TC  $\rightarrow O(n)$   
 SC  $\rightarrow O(n)$

M-2  $\rightarrow$  Change in Current LL  $\rightarrow$



$h_1 \rightarrow next = h_2 \rightarrow next$  /  $h_1 \rightarrow next \rightarrow next$

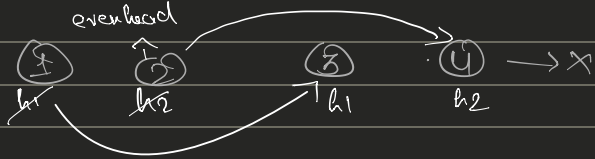
$h_2 \rightarrow next = h_2 \rightarrow next \rightarrow next$

$h_1 = h_1 \rightarrow next$

$h_2 = h_2 \rightarrow next$

$\Rightarrow h_1 \rightarrow next = evenhead;$

Even  $\rightarrow$



Even =  $h_2 \rightarrow \text{next} = \text{NULL} \rightarrow (\text{stop})$

$h_1 \rightarrow \text{next} = \text{evenhead}$

①  $\rightarrow$  ③  $\rightarrow$  ②  $\rightarrow$  ④  $\rightarrow$  X