

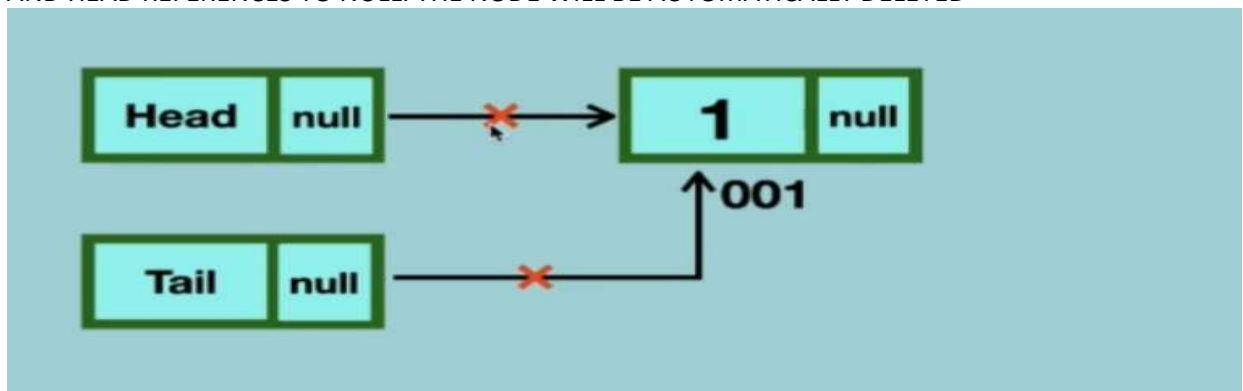
12-4 LINKED LIST- DELETING A NODE

Saturday, June 4, 2022 6:19 AM

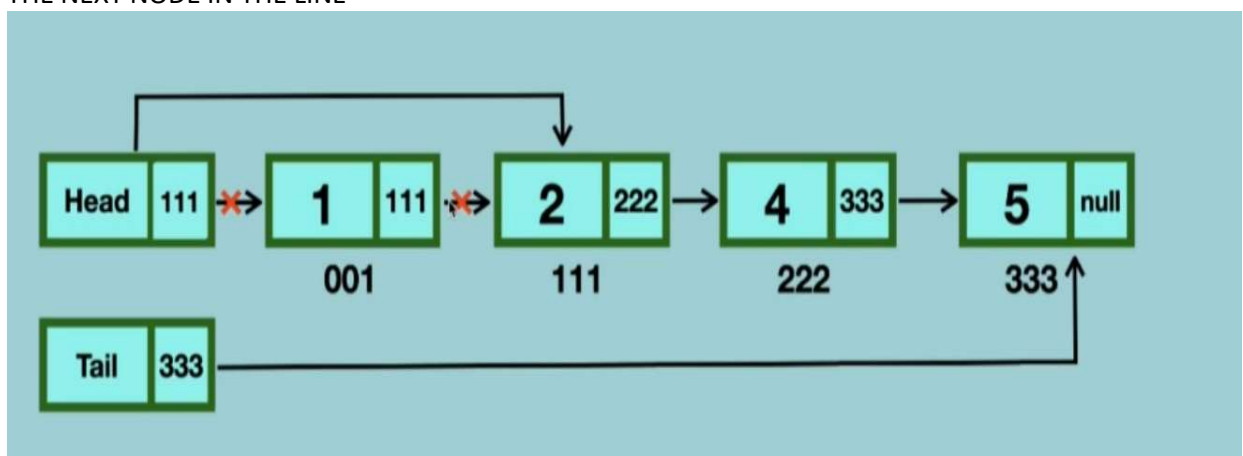
Singly Linked list Deletion

- Deleting the first node
- Deleting any given node
- Deleting the last node

- 1) CASE 1 - **ONLY ONE NODE IN THE LIST** : WE JUST NEED TO UPDATE TAIL AND HEAD REFERENCES TO NULL. THE NODE WILL BE AUTOMATICALLY DELETED

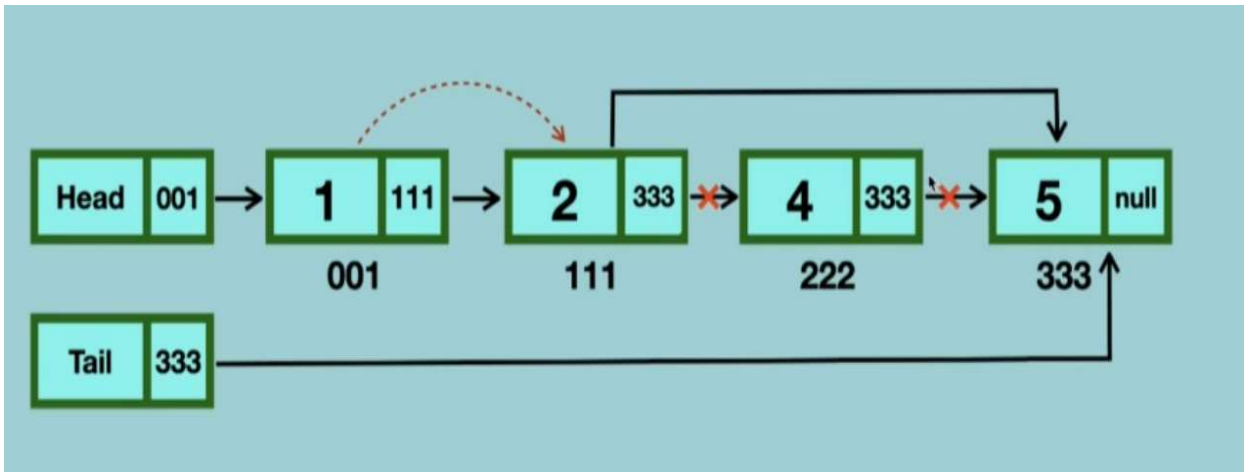


- 2) CASE 2 : DELETE **FIRST NODE IN THE LIST** : YOU HAVE TO UPDATE THE HEAD REFERENCE WITH THE REFERENCE OF THE NEXT NODE IN THE LINE

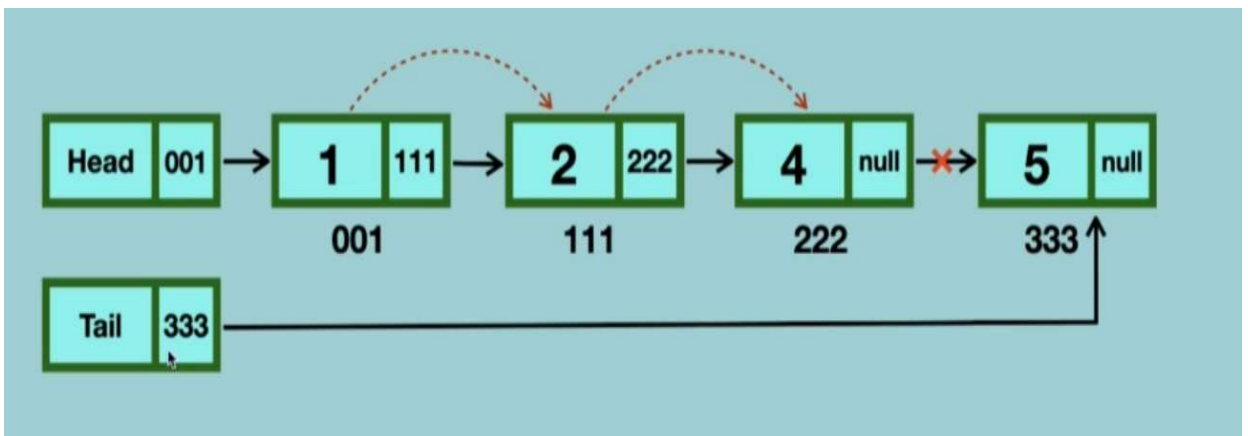
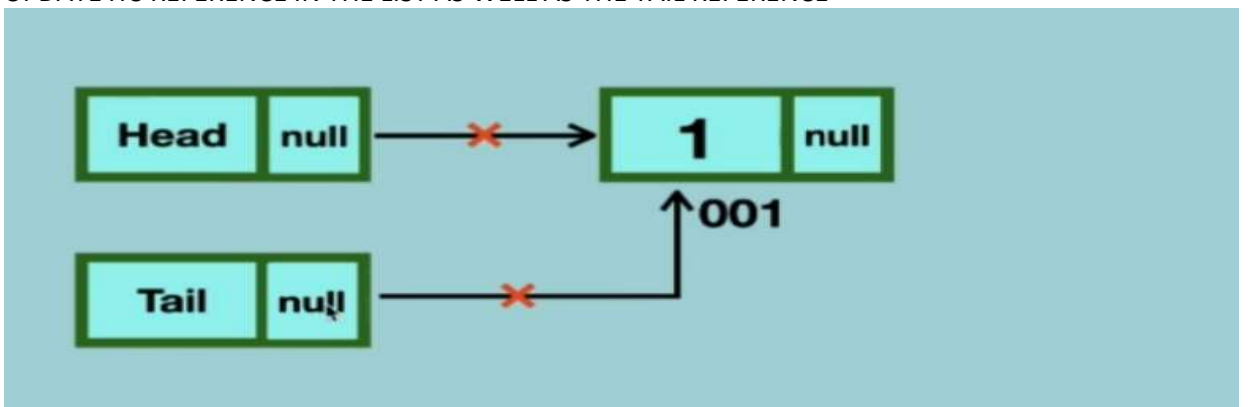


- 3) CASE 3: **DELETE A NODE FROM ANY LOCATION IN THE LIST**. WE HAVE TO USE A LOOP TO TRAVERSE THE

THE LIST AND FIND THE NODE THAT WE WANT TO DELETE AS WELL AS THE NODE PRIOR TO THAT NODE IN ORDER TO CHANGE ITS REFERENCE.



- 4) DELETING THE LAST NODE : IF THERE IS ONE NODE IN THE LIST, SAME AS CASE 1, OTHERWISE, WE TRAVERSE THE LIST UNTIL WE REACH THE LAST NODE AND THE NODE BEFORE THE LAST AND WE UPDATE ITS REFERENCE IN THE LIST AS WELL AS THE TAIL REFERENCE



ALGORITHM

