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struct node
{
    int val; node * lo-next; node * li-next;
}

node * getNode(int x)
{
    node * p = (node *) malloc(sizeof(node));
    p->lo-next = NULL;
    p->li-next = NULL;
    return p;
}

node * insert(node * head, int x)
{
    node * temp = head;
    while (temp->li-next && val < x)
    {
        temp = temp->li-next;
        if (temp->li-next == NULL) break;
    }

    while (temp->lo-next && val < x)
    {
        temp = temp->lo-next;
        if (temp->lo-next == NULL) break;
    }

    if ((temp->lo-next == NULL) && (temp->li-next ==
        NULL))
    {
        node * p = getNode(x);
        p->lo-next = NULL;
        p->li-next = NULL;
        temp->lo-next = p;
        temp->li-next = p;
        return head;
    }

    node * p = getNode(x);
    p->lo-next = temp->lo-next;
    temp->lo-next = p;
    return head;
}

```

```

node * delete (node * head, int n)
{
    node * tmp = head;
    while (tmp != NULL && tmp->val < n)
    {
        tmp = tmp->next;
    }
    if (tmp == NULL) break;

    while (tmp->next->val < n)
    {
        if (tmp->next->val == n)
        {
            tmp->next = tmp->next->next;
            if (tmp->next == NULL) break;
            tmp->next = tmp->next->next;
        }
    }
    tmp = tmp->next;
    if (tmp == NULL) return head;
}

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