

## Practice assisted project phase 1

5. Write a program in Java to delete the first occurrence of a key in a singly linked list

```
package main;
class LinkedList {
    static Node head;
    class Node
    {
        int data;
        Node next;
        Node(int d)
        {
            data = d;
            next = null;
        }
    }
    void deleteKey(int key)
    {
        Node temp = head, prev = null;
        while (temp != null && temp.data == key)
        {
            head = temp.next;
            temp = head;
        }
        while (temp != null)
        {
            while (temp != null && temp.data != key)
            {
                prev = temp;
                temp = temp.next;
            }
            if (temp == null)
                return;
            prev.next = temp.next;
            temp = prev.next;
        }
    }
    public void push(int new_data)
    {
        Node new_node = new Node(new_data);
        new_node.next = head;
        head = new_node;
    }
    public void printList()
    {
        Node tnode = head;
        while (tnode != null)
        {
```

```

        System.out.print(tnode.data + " ");
        tnode = tnode.next;
    }
}

public static void main(String[] args)
{
    LinkedList llist = new LinkedList();

    llist.push(7);
    llist.push(2);
    llist.push(3);
    llist.push(2);
    llist.push(8);
    llist.push(1);
    llist.push(2);
    llist.push(2);

    int key = 2;

    System.out.println("Created Linked list is:");
    llist.printList();

    llist.deleteKey(key);

    System.out.println(
        "\nLinked List after Deletion is:");
    llist.printList();
}
}

```

OUTPUT-

```

Console X
<terminated> LinkedList [Java Application] C:\Program Files\Java\jdk-20\bin\javaw.exe (16-May-2023, 10:37:16 am – 10:37:17 am) [pid: 24956]
Created Linked list is:
2 2 1 8 2 3 2 7
Linked List after Deletion is:
1 8 3 7

```