

```
1 class Node():
2     def __init__(self, value):
3         self.value = value
4         self.next = None
5
6 class LinkedList():
7     def __init__(self):
8         self.head = None
9
10    def append(self, value):
11        if self.head is None:
12            self.head = Node(value)
13            return
14
15        current_node = self.head
16        new_node = Node(value)
17        while (current_node.next):
18            current_node = current_node.next
19        current_node.next = new_node
20
21    def to_list(self) -> list:
22        l = []
23        current_node = self.head
24        while current_node:
25            l.append(str(current_node.value))
26            current_node = current_node.next
27        return l
28
29    def search(self, value):
30        current_node = self.head
31        while current_node:
32            if current_node.value == value:
33                return True
34            current_node = current_node.next
35        return False
36
37    def delete(self, value) -> bool:
38        temp_node = self.head
39
40        # if head node is to be deleted
41        if temp_node is not None:
42            if temp_node.value == value:
43                self.head = temp_node.next
44                temp_node = None
45                return True
46
47        # search for value to delete
48        # keep track of previous node
49        while temp_node is not None:
50            if temp_node.value == value:
51                break
52            previous_node = temp_node
53            temp_node = temp_node.next
54
55        # return false if node is not found
56        if temp_node == None:
57            return False
58
59        # switch up pointers
60        previous_node.next = temp_node.next
```

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61
62     # free the temp node
63     temp_node = None
```

```
1  from adt import LinkedList
2
3  def main():
4      # Hardcoded users
5      preexisting_users = ["Steven", "Faye", "Rangel", "Gea", "Oxy"]
6      title = "Registration System!"
7      registered = LinkedList()
8      for user in preexisting_users:
9          registered.append(user)
10
11     print("=" * len(title))
12     print(title)
13     print("=" * len(title))
14     while True:
15         print("Current users registered: ", end="")
16         print(*registered.to_list(), sep=", ")
17         action = input("Actions (register/delete/exit): ").strip().lower()
18         if action == "register":
19             registered_name = input("Enter your name: ").title()
20             registered.append(registered_name)
21         elif action == "delete":
22             deleted_name = input("User to delete: ").strip().title()
23             if registered.search(deleted_name) == True:
24                 registered.delete(deleted_name)
25                 print("User has been deleted!")
26             else:
27                 print("User does not exist!")
28         elif action == "exit":
29             break
30
31
32
33 def get_string(prompt:str) -> str:
34     try:
35         return input(prompt)
36     except ValueError:
37         pass
38
39 if __name__ == "__main__":
40     main()
```