

```
#include <iostream>
```

```
#include <string>
```

```
using namespace std;
```

```
struct Node {
```

```
    int prn;
```

```
    string name;
```

```
    Node* next;
```

```
    Node(int p, string n) : prn(p), name(n), next(nullptr) {}
```

```
};
```

```
class PinnacleClub {
```

```
    Node* head;
```

```
public:
```

```
    PinnacleClub() : head(nullptr) {}
```

```
    void addPresident(int prn, string name) {
```

```
        Node* new_node = new Node(prn, name);
```

```
        new_node->next = head;
```

```
        head = new_node;
```

```
    }
```

```
    void addSecretary(int prn, string name) {
```

```
        Node* new_node = new Node(prn, name);
```

```
        if (!head) {
```

```
            head = new_node;
```

```
        } else {
```

```
            Node* temp = head;
```

```
            while (temp->next) {
```

```

        temp = temp->next;
    }
    temp->next = new_node;
}
}

```

```

void addMember(int prn, string name) {
    Node* new_node = new Node(prn, name);
    if (!head) {
        cout << "Add president first.\n";
        return;
    }
    Node* temp = head;
    while (temp->next && temp->next->next) {
        temp = temp->next;
    }
    new_node->next = temp->next;
    temp->next = new_node;
}

```

```

void deletePresident() {
    if (!head) {
        cout << "No members to delete.\n";
        return;
    }
    Node* temp = head;
    head = head->next;
    delete temp;
}

```

```

void deleteSecretary() {
    if (!head || !head->next) {

```

```

        cout << "No members to delete.\n";
        return;
    }
    Node* temp = head;
    while (temp->next && temp->next->next) {
        temp = temp->next;
    }
    Node* to_delete = temp->next;
    temp->next = nullptr;
    delete to_delete;
}

void deleteMember(int prn) {
    if (!head) {
        cout << "No members to delete.\n";
        return;
    }
    if (head->prn == prn) {
        deletePresident();
        return;
    }
    Node* temp = head;
    while (temp->next && temp->next->prn != prn) {
        temp = temp->next;
    }
    if (temp->next) {
        Node* to_delete = temp->next;
        temp->next = temp->next->next;
        delete to_delete;
    } else {
        cout << "Member not found.\n";
    }
}

```

```
}
```

```
int countMembers() {  
    int count = 0;  
    Node* temp = head;  
    while (temp) {  
        count++;  
        temp = temp->next;  
    }  
    return count;  
}
```

```
void displayMembers() {  
    Node* temp = head;  
    while (temp) {  
        cout << "PRN: " << temp->prn << ", Name: " << temp->name << endl;  
        temp = temp->next;  
    }  
}
```

```
void concatenate(PinnacleClub& other) {  
    if (!head) {  
        head = other.head;  
    } else {  
        Node* temp = head;  
        while (temp->next) {  
            temp = temp->next;  
        }  
        temp->next = other.head;  
    }  
    other.head = nullptr;  
}
```

```

~PinnacleClub() {
    while (head) {
        Node* temp = head;
        head = head->next;
        delete temp;
    }
}

};

int main() {
    PinnacleClub club1, club2;

    club1.addPresident(1, "President1");
    club1.addMember(2, "Member1");
    club1.addSecretary(3, "Secretary1");

    club2.addPresident(4, "President2");
    club2.addMember(5, "Member2");
    club2.addSecretary(6, "Secretary2");

    cout << "Club 1 members:\n";
    club1.displayMembers();

    cout << "\nClub 2 members:\n";
    club2.displayMembers();

    club1.concatenate(club2);

    cout << "\nAfter concatenation:\n";
    club1.displayMembers();
}

```

```
cout << "\nTotal members in Club 1: " << club1.countMembers() << endl;

club1.deletePresident();

cout << "\nAfter deleting President:\n";

club1.displayMembers();


club1.deleteSecretary();

cout << "\nAfter deleting Secretary:\n";

club1.displayMembers();


club1.deleteMember(2);

cout << "\nAfter deleting Member with PRN 2:\n";

club1.displayMembers();


return 0;

}
```