

# C++ Parking Lot Program (Clean - No Emojis)

```
#include <bits/stdc++.h>
using namespace std;

struct Car {
    string number;
    int slot;
    Car* next;
};

class ParkingLot {
    Car* head;
    int capacity;
    int used;
public:
    ParkingLot(int n) {
        head = NULL;
        capacity = n;
        used = 0;
    }

    void parkCar(string num) {
        if (used == capacity) {
            cout << "Parking Full!\n";
            return;
        }
        Car* newCar = new Car{num, used + 1, head};
        head = newCar;
        used++;
        cout << "Car " << num << " parked at slot " << used << "\n";
    }

    void exitCar(string num) {
        Car* temp = head, *prev = NULL;
        while (temp) {
            if (temp->number == num) {
                if (prev) prev->next = temp->next;
                else head = temp->next;
                cout << "Car " << num << " exited from slot " << temp->slot << "\n";
                delete temp;
                used--;
                return;
            }
            prev = temp;
            temp = temp->next;
        }
        cout << "Car not found!\n";
    }

    void showCars() {
        if (!head) {
            cout << "No cars parked.\n";
            return;
        }
        Car* temp = head;
        cout << "--- Parked Cars ---\n";
        while (temp) {
            cout << "Slot " << temp->slot << ": " << temp->number << "\n";
            temp = temp->next;
        }
    }
};

int main() {
    ParkingLot lot(3);
    int ch;
    string num;
    while (true) {
        cout << "\nSmart Parking Menu\n";
        cout << "1. Park Car\n2. Exit Car\n3. Show Parked Cars\n4. Exit\n";
        cin >> ch;
        if (ch == 1) {
            cout << "Enter Car Number: ";
            cin >> num;
        }
    }
}
```

```
        lot.parkCar(num);
    } else if (ch == 2) {
        cout << "Enter Car Number to Exit: ";
        cin >> num;
        lot.exitCar(num);
    } else if (ch == 3) {
        lot.showCars();
    } else break;
}
return 0;
}
```