

# 1603. Design Parking System

## Description

Design a parking system for a parking lot. The parking lot has three kinds of parking spaces: big, medium, and small, with a fixed number of slots for each size.

Implement the `ParkingSystem` class:

- `ParkingSystem(int big, int medium, int small)` Initializes object of the `ParkingSystem` class. The number of slots for each parking space are given as part of the constructor.
- `bool addCar(int carType)` Checks whether there is a parking space of `carType` for the car that wants to get into the parking lot. `carType` can be of three kinds: big, medium, or small, which are represented by `1`, `2`, and `3` respectively. **A car can only park in a parking space of its `carType`**. If there is no space available, return `false`, else park the car in that size space and return `true`.

### Example 1:

#### Input

```
["ParkingSystem", "addCar", "addCar", "addCar", "addCar"]  
[[1, 1, 0], [1], [2], [3], [1]]
```

#### Output

```
[null, true, true, false, false]
```

#### Explanation

```
ParkingSystem parkingSystem = new ParkingSystem(1, 1, 0);  
parkingSystem.addCar(1); // return true because there is 1 available slot for a big car  
parkingSystem.addCar(2); // return true because there is 1 available slot for a medium car  
parkingSystem.addCar(3); // return false because there is no available slot for a small car  
parkingSystem.addCar(1); // return false because there is no available slot for a big car. It is already occupied.
```

### Constraints:

- `0 <= big, medium, small <= 1000`
- `carType` is `1`, `2`, or `3`
- At most `1000` calls will be made to `addCar`

