

The Garage

The city of Vence is in need of assistance in implementing a new parking garage and has sought your help for this purpose. The garage should support various types of vehicles:

- Cars
- Motorcycles

Each vehicle has a unique ID (license plate) and can exist only once, whether inside or outside the parking garage. The planned parking garage should support multiple levels, but due to structural considerations, the city of Vence is not yet certain about the maximum height of the parking garage. Consequently, the application should allow flexibility in adjusting the number of levels.

Similarly, for the number of parking spaces per level, since the plot for the construction of the parking garage has not been identified yet, the application should remain flexible and configurable.

Your task is to develop a simulation program for the parking garage. Vehicles should be able to enter and exit the parking garage. The application should assign a free space to the incoming vehicle or reject it if no free parking spaces are available.

The administrator of the parking garage should be able to inquire about the position of a specific vehicle. The response should include both the level and the assigned parking space. Additionally, it should be possible to query the number of remaining free parking spaces.