MNC COMPANIES - SET 001

Solved Challenges **4/10**

Back To Challenges List

Car Parking - Park & Search

ID:12188 **Solved By 126 Users**

TCS NQT

In a car parking area, **N** cars are parked. The maximum number of cars that can be parked in the area is **M**. Each car must be parked at the next available position of the last car parked.
The program must accept the registration numbers of the N cars and the value of M as the input. The program also accepts Q queries as the input. Each query contains an integer representing the option **X** and a string representing the registration number **R** of a car.
- **Option X = 1:** The program must add the registration number R to the already parked cars and print the string value "**Car parked at position:**" followed by the position of the newly parked car. If the parking area is full, the program must print the string value "**No space for parking**" as the output.
- **Option X = 2:** The program must search the given registration number R among the parked cars. If it is found, the program must print the string value "**Car position:**" followed by the position of the car. If the registration number R is not found, the program must print the string value "**Car does not exists**" as the output.
- For any other options, the program must print the string value "**Invalid**" as the output.
For each query, the program must print the output in separated lines based on the given conditions.

Boundary Condition(s):
1 <= N <= M <= 100
6 <= Length of each car's registration number <= 12
1 <= Q <= 20

Input Format:
The first line contains N.
The second line contains the registration number of the N cars separated by a space.
The third line contains the maximum number of cars M that can be parked in the area.
The fourth line contains Q.
The next Q lines, each contains an integer X and the registration number R of a car separated by a space.

Output Format:
The first Q lines, each contains a string value based on the given conditions.

Example Input/Output 1:
Input:
5
TN6548 MH1247 KA3057 KL2154 TN6999
7
6
1 KA1200
2 KL2154
4 JK9842

1 MH0055
1 KA5555
2 TK1872

Output:
Car parked at position: 6
Car position: 4
Invalid
Car parked at position: 7
No space for parking
Car does not exists

Explanation:
Here **Q=6**.
Query 1: The given option is **1** and the maximum cars that can be parked is **7**. Here only **5** cars are parked, so the car **KA1200** is parked at the position **6**.
Query 2: The given option is **2** and the registration number is **KL2154**. The car with the registration number KL2154 is already parked at the position **4**.
Query 3: The given option is **4**, the options other than 1 and 2 are **Invalid**.
Query 4: The given option is **1** and the maximum cars that can be parked is **7**. Here only **6** cars are parked, so the car **MH0055** is parked at the position **7**.
Query 5: The given option is **1** and the number of cars parked is **7**. Now the parking area is full, so no space for parking.
Query 6: The given option is **2** and the registration number is **TK1872**. There is no car with the registration number TK1872, so the car does not exists.

Example Input/Output 2:
Input:
6
TN4578 KL1458 KA5785 TN1245 TN6945 KA2456
9
8
1 KL1125
3 TN5785
2 TN1245
1 TN2582
1 PB1241
2 KA4545
1 MH4575
2 TN4578

Output:
Car parked at position: 7
Invalid
Car position: 4
Car parked at position: 8
Car parked at position: 9
Car does not exists
No space for parking
Car position: 1

Max Execution Time Limit: 50 millisecs

Ambiance

Python3 (3.x)

Reset

```
N = int(input())
reg_no = list(input().strip().split())
max_N = int(input())
Q = int(input())
queries = []
X=0
for index in range(Q):
    X,queries = input().strip().split()
    if(X=="1"):
        if(len(reg_no)==max_N):
            print("No space for parking")
        else:
            reg_no.append(queries)
            print("Car parked at position: "+str(len(reg_no)))
    elif(X=="2"):
        if(queries in reg_no):
            print("Car position: "+str(reg_no.index(queries)+1
        else:
            print("Car does not exists")
    else:
        print("Invalid")

```

Code did not pass the execution

TestCase ID: 78939

Input:

5
TN6548 MH1247 KA3057 KL2154 TN6999
7
6
1 KA1200
2 KL2154
4 JK9842
1 MH0055
1 KA5555
2 TK1872

Expected Output:

Car parked at position: 6
Car position: 4

Invalid
Car parked at position: 7
No space for parking
Car does not exists

Your Program Output:

Car parked at position:6
Car position:4
Invalid
Car parked at position:7
No space for parking
Car does not exists

Save Run

Run with a custom test case (Input/Output)