

Problem statement: To Design a Low Level Parking System

Description:

I am Brahmendra , I have designed a low level But user-friendly python program for parking system that include 3 major types of vehicles:

Four wheelers

Three wheelers

Two wheelers

Each accommodate 3, 4 & 5 respectively.

The user can park a vehicle only if the entry condition/ constrain is satisfied:

->Entered vehicles should be less than maxlimit

The user can depart a vehicle only if there is atleast one vehicle in parking zone.

If user enter other option, system throws error and ask to enter valid option(park/departure)

Code:

```
class lldparking:  
    def __init__(self,four,tri,two):
```

LLD PARKING SYSTEM

```
self.maxlimit = [four,tri,two]

self.slot=[0,0,0]

def addvehicle(self):

    print("0.four wheeler")

    print("1.tri wheeler")

    print("2.two wheeler")

    vehicleType=int(input())

    if(self.slot[vehicleType]<self.maxlimit[vehicleType]):

        self.slot[vehicleType] += 1

        return print("vehicle parked")

    return print("no space for parking")

def remvehicle(self):

    if(max(self.slot)==0):

        return print("No vehicle in the parking zone")

    print("0.four wheeler")

    print("1.tri wheeler")

    print("2.two wheeler")

    vehicleType=int(input())

    if(self.slot[vehicleType]>0):

        self.slot[vehicleType] -= 1

        return print("vehicle departed")

    return print("no such vehicle's parked")

totalspace = lldparking(1, 2, 3)

while(1):

    print("select an option:")

    print("1.parking your vehicle?",end=' ')

    print("2.departing your vehicle?",end=' ')
```

LLD PARKING SYSTEM

```
print("3.No one's in the parking Zone !!")

opt=int(input())

if(opt==1):

    totalspace.addvehicle()

elif(opt==2):

    totalspace.remvehicle()

elif(opt==3):

    break;

else:

    print("select valid option")
```

OutPut:

```
C:\Users\vadar\OneDrive\Desktop>park.py
select an option:
1.parking your vehicle?    2.departing your vehicle?    3.No one's in the parking Zone !!
1
0.four wheeler
1.tri wheeler
2.two wheeler
0
vehicle parked
select an option:
1.parking your vehicle?    2.departing your vehicle?    3.No one's in the parking Zone !!
0
select valid option
select an option:
1.parking your vehicle?    2.departing your vehicle?    3.No one's in the parking Zone !!
1
0.four wheeler
1.tri wheeler
2.two wheeler
0
no space for parking
select an option:
1.parking your vehicle?    2.departing your vehicle?    3.No one's in the parking Zone !!
2
0.four wheeler
1.tri wheeler
2.two wheeler
1
no such vehicle's parked
```

LLD PARKING SYSTEM

```
select an option:
1.parking your vehicle?   2.departing your vehicle?   3.No one's in the parking Zone !!
2
0.four wheeler
1.tri wheeler
2.two wheeler
0
vehicle departed
select an option:
1.parking your vehicle?   2.departing your vehicle?   3.No one's in the parking Zone !!
1
0.four wheeler
1.tri wheeler
2.two wheeler
2
vehicle parked
select an option:
1.parking your vehicle?   2.departing your vehicle?   3.No one's in the parking Zone !!
3
C:\Users\vadar\OneDrive\Desktop>
```