Parking Lot

Overview: This repository gives an overview of how we can design a basic parking lot in Python. It creates parking lot with given number of slots. The cars follow Greedy approach while being parked in the slots.

File Structure: I have divided my project into three modules:

1. **Index.py =** Main File (The file which you have to Run)
2. **Classes.py =** The file where I declare and define my class and its member function.
3. **Function.py** = The file where I declare and define non-member function.

Input and Output: index.py can be run through shell or through file containing test cases. I did with file handling, in file **input.txt** all the test cases are there. You just need to run index.py,the desired output will be display in your screen. You can change input.txt according to your requirement.

Desired functionality: **index.py** script defines the following functions -

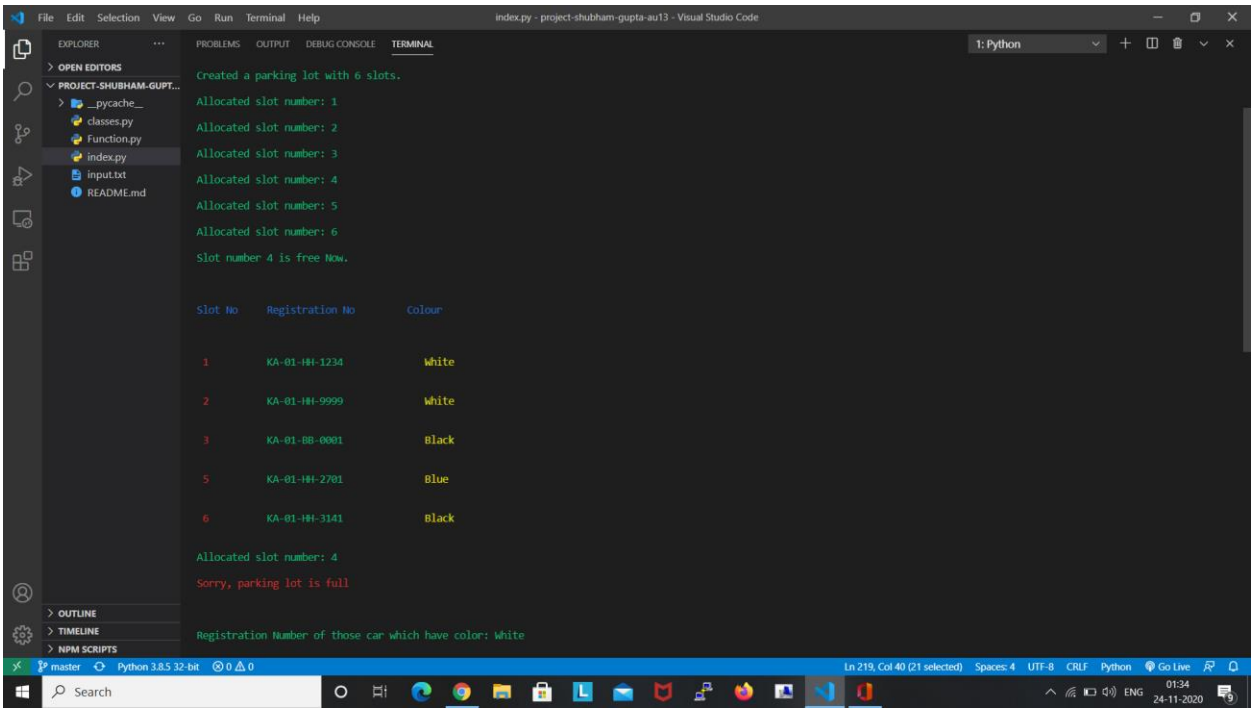
1. **create_parking_lot n** - Given n number of slots, create a parking lot
2. **park car_regno car color** - Parks a vehicle with given registration number and color in the nearest empty slot possible. If there are no more empty slots available, it shows a message "Sorry, parking lot is full".
3. **status** - Prints the slot number, registration number and color of the parked vehicles.
4. **leave x** - Removes vehicle from slot number x
5. There are few query functions to retrieve slot number from registration number of cars, get registration numbers of cars with particular color etc.

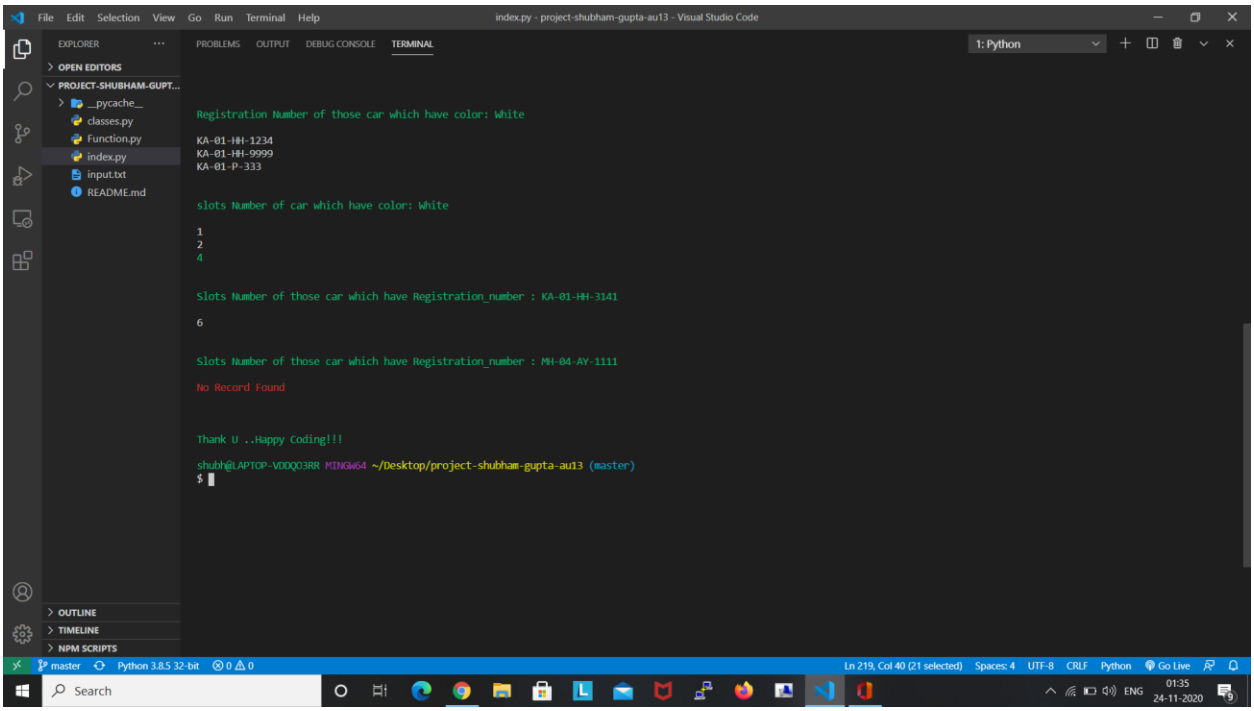
Additional Functionality:

1. **Modify slot** - I have added a feature by which you can extend the number of parking slot if you required at any instance of program. To perform this, you will have to add a command in input file. (**modify 10**). This will add 10 more new slot.

2. **Free slot** - I have added a feature by which You can check the available slot. To perform this you will have to add a command in input file.(**display_avaiable_slot**).This will show all f ree slot.

Output Screen:




File Edit Selection View Go Run Terminal Help
index.py - project-shubham-gupta-au13 - Visual Studio Code
EXPLORER
OPEN EDITORS
PROJECT-SHUBHAM-GUPT...
__pycache__
classes.py
Function.py
index.py
input.txt
README.md
OUTLINE
TIMELINE
NPM SCRIPTS
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL
1: Python
Registration Number of those car which have color: White
KA-01-HH-1234
KA-01-HH-9999
KA-01-P-333
slots Number of car which have color: White
1
2
4
Slots Number of those car which have Registration_number : KA-01-HH-3141
6
Slots Number of those car which have Registration_number : MH-04-AY-1111
No Record Found
Thank U ..Happy Coding!!!
shubh@LAPTOP-VDDQO3RR MINGW64 ~/Desktop/project-shubham-gupta-au13 (master)
$
master
Python 3.8.5 32-bit
0 0
Ln 219, Col 40 (21 selected)
Spaces: 4
UTF-8
CRLF
Python
Go Live
Search
ENG
01:35
24-11-2020