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| PROJECT TITLE | Car Parking Management Software |

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| EXECUTIVE SUMMARY | The Car Parking Management software was designed and implemented to provide a software to be used to manage the a car-parking and provide service. |
| BACKGROUND | A digital medium of registering and storing data as well as managing a car parking in real time was required for an organization. Thus the need was fulfilled by the developers by the implementation of this software. |
| OBJECTIVES | The car parking management software should run on selected hardware to provide a digital management system for the authority to use to manage their parking facilities. |
| METHODOLOGY | Simple storage and editing the data of the car's managed by the facility was required. Different functions, class modules and text files were used in synchronization to develop the project. |
| RESOURCES | Any computer machine that supports python 3.10 or above can be used to deploy and maintain the software. |

## Description:

The Project is a Command-Line-Interface (CLI) based task scheduler with some basic feature implemented to function as a car parking management system. A Text file parsing was used to save the data on a text file. Different python functions were used to execute different functionalities of the software. 'Try except' was used for runtime error handling. Numerical choice based scrolling was used to navigate to different functionalities of the software. The software should provide a simple but effective user experience to the user.

## Features:

1.Entry a vehicle : User can enter a vehicle credentials to store it at parking spot.

2.View Vehicle List: User can see the list of vehicles in the parking lot.

3.Sort: User Can sort vehicle list according to their name or registered time.

4.Edit Vehicle: User can edit stored vehicle details.

5.Search Vehicle: User can search Inventory with keyword related to parked vehicles.

6.Exit Vehicle: User can remove vehicle name from list.

7.Exit Program: User can exit the program.

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Parking System
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1. Entry a Vehicle
2. View Vehicle List
3. Sort
4. Edit Vehicle
5. Search Vehicle
6. Vehicle Exit
7. Exit Program
Enter your choice (1-7): 1
Enter vehicle name: nissan
Enter vehicle number: 21-111-5
Vehicle entry recorded successfully!
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Parking System
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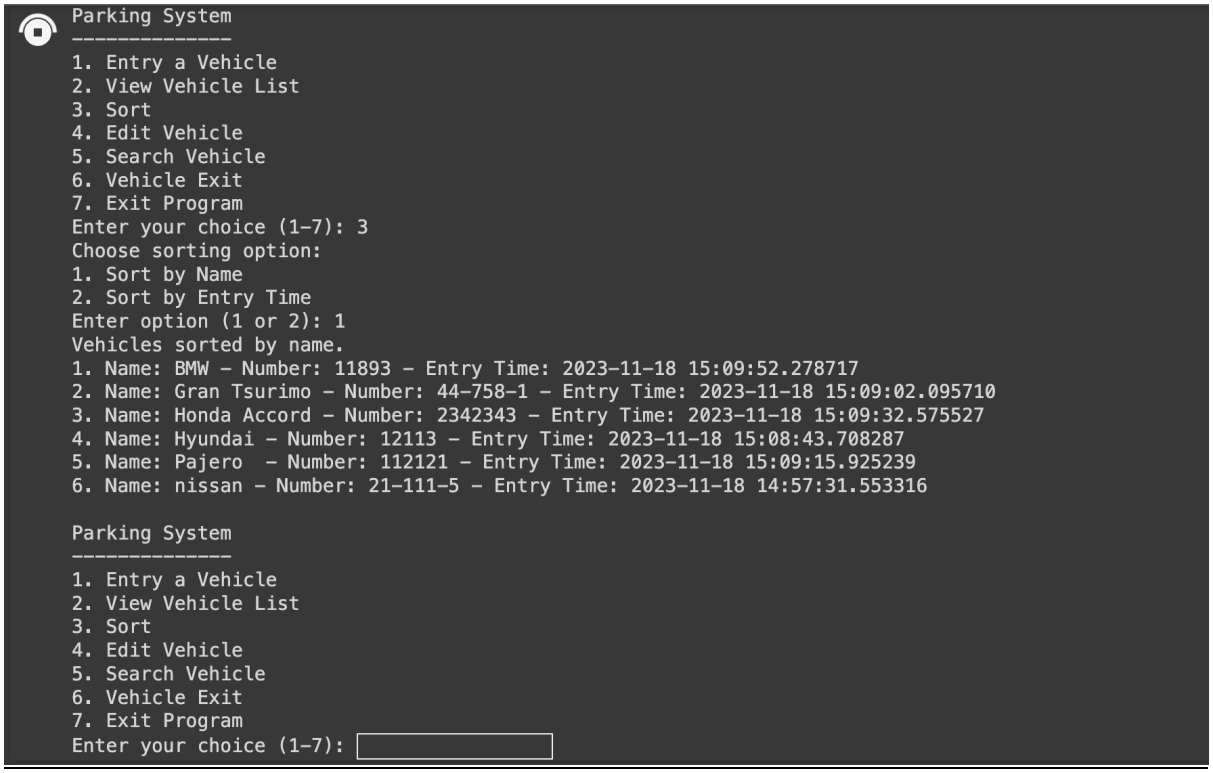
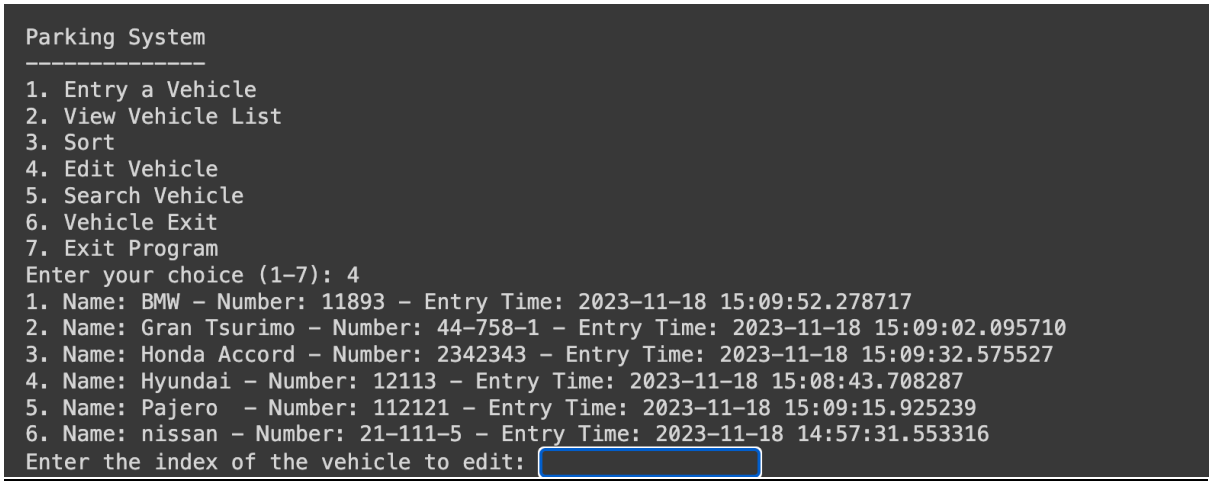
1. Entry a Vehicle
2. View Vehicle List
3. Sort
4. Edit Vehicle
5. Search Vehicle
6. Vehicle Exit
7. Exit Program
Enter your choice (1-7): 2
1. Name: nissan - Number: 21-111-5 - Entry Time: 2023-11-18 14:57:31.553316
2. Name: Hyundai - Number: 12113 - Entry Time: 2023-11-18 15:08:43.708287
3. Name: Gran Tsurimo - Number: 44-758-1 - Entry Time: 2023-11-18 15:09:02.095710
4. Name: Pajero  - Number: 112121 - Entry Time: 2023-11-18 15:09:15.925239
5. Name: Honda Accord - Number: 2342343 - Entry Time: 2023-11-18 15:09:32.575527
6. Name: BMW - Number: 11893 - Entry Time: 2023-11-18 15:09:52.278717
```


Parking System
1. Entry a Vehicle
2. View Vehicle List
3. Sort
4. Edit Vehicle
5. Search Vehicle
6. Vehicle Exit
7. Exit Program
Enter your choice (1-7): 3
Choose sorting option:
1. Sort by Name
2. Sort by Entry Time
Enter option (1 or 2): 1
Vehicles sorted by name.
1. Name: BMW - Number: 11893 - Entry Time: 2023-11-18 15:09:52.278717
2. Name: Gran Tsurimo - Number: 44-758-1 - Entry Time: 2023-11-18 15:09:02.095710
3. Name: Honda Accord - Number: 2342343 - Entry Time: 2023-11-18 15:09:32.575527
4. Name: Hyundai - Number: 12113 - Entry Time: 2023-11-18 15:08:43.708287
5. Name: Pajero - Number: 112121 - Entry Time: 2023-11-18 15:09:15.925239
6. Name: nissan - Number: 21-111-5 - Entry Time: 2023-11-18 14:57:31.553316
Parking System
1. Entry a Vehicle
2. View Vehicle List
3. Sort
4. Edit Vehicle
5. Search Vehicle
6. Vehicle Exit
7. Exit Program
Enter your choice (1-7):


Parking System
1. Entry a Vehicle
2. View Vehicle List
3. Sort
4. Edit Vehicle
5. Search Vehicle
6. Vehicle Exit
7. Exit Program
Enter your choice (1-7): 4
1. Name: BMW - Number: 11893 - Entry Time: 2023-11-18 15:09:52.278717
2. Name: Gran Tsurimo - Number: 44-758-1 - Entry Time: 2023-11-18 15:09:02.095710
3. Name: Honda Accord - Number: 2342343 - Entry Time: 2023-11-18 15:09:32.575527
4. Name: Hyundai - Number: 12113 - Entry Time: 2023-11-18 15:08:43.708287
5. Name: Pajero - Number: 112121 - Entry Time: 2023-11-18 15:09:15.925239
6. Name: nissan - Number: 21-111-5 - Entry Time: 2023-11-18 14:57:31.553316
Enter the index of the vehicle to edit: