


Soal Praktikum <i>Practicum Case</i>	
COMP6362 Data Structures	
Teknik Informatika <i>Computer Science</i>	CS-COMP6362-Var03.4
Periode Berlaku Mulai Semester Genap 2020/2021 <i>Valid on Even Semester Year 2020/2021</i>	Revisi 00 <i>Revision 00</i>

Learning Outcomes

- Demonstrate how to create any learned data structure
- Analyze the usage of data structure in application

Topic

- Session 02 - Single Linked List

Sub Topics

- Pointer of Struct
- Malloc
- Free
- Operator
- Push Head
- Push Tail
- Push Middle
- Pop Head
- Pop Tail
- Pop Middle

Soal

Case

Mr. Ali has a rental car company named Alamo. He needs a program to record the queue list of tenants. Here are the descriptions of the program:

- The program has a tenant's list view, and the first customer must be served first.
- Program consists of 5 menus:
 1. View Tenant's List
 2. New Tenant
 3. Service
 4. Delete Tenant
 5. Exit
- If user chooses **menu 1. View Tenant's List**, then:
 - The program will show the list of number, tenant's name, and brand of car.
 - If there is no data, then program will show the message "---**There are no list available**---".
- If user chooses **menu 2, New Tenant**, then:

- The application will ask the user to input the new number of tenant. The number must be integer value begin at 1.
- The application will ask the user to input tenant's name.
- The application will ask the user to input brand of car.
- If user chooses **menu 3. Service**, then:
 - If there is any data in the list of tenants, the application will delete the first data in the list and show the message “---**Rental service has been successful**---”.
 - If there is no data, then program will show the message “---**There are no list available**---”.
- If user chooses **menu 4. Delete Tenant**, then:
 - If there is data in the list, the program will ask the user to enter the number of the tenant they want to delete.
 - If there is no data in the list, then application will show the message “---**There are no list available**---”.
- If user chooses **menu 5. Exit**, then:
 - Delete all data.
 - Program ends.

Please run the EXE file to see the sample program.

Print Screen of Main Menu

```
-- Alamo Rental Car --
=====
1. View Tenant's List
2. New Tenant
3. Service
4. Delete Tenant
5. Exit
Input choice :
```

Print Screen of Shoe Menu 1. View Tenant's List

- If there is no data, then program will show the message “---**There are no list available**---”.

```
-- Alamo Rental Car --
=====
1. View Tenant's List
2. New Tenant
3. Service
4. Delete Tenant
5. Exit
Input choice : 1

---There are No List Available---
```

- If there are data available, then show the list of number, tenant's name, and brand of car.

```
-- Alamo Rental Car --
=====
1. View Tenant's List
2. New Tenant
3. Service
4. Delete Tenant
5. Exit
Input choice : 1

Number of List : 1
Name : James
Brand of Car : Pajero Sport

Number of List : 2
Name : Kevin
Brand of Car : Fortuner

Number of List : 3
Name : Gideon
Brand of Car : Terios
```

Print Screen of Shoe Menu 2. New Tenant

```
-- Alamo Rental Car --
=====
1. View Tenant's List
2. New Tenant
3. Service
4. Delete Tenant
5. Exit
Input choice : 2

Input Number of List : 3
Input Name : Gideon
Input Brand of Car : Terios
```

Print Screen of Shoe Menu 3. Service

```
-- Alamo Rental Car --
=====
1. View Tenant's List
2. New Tenant
3. Service
4. Delete Tenant
5. Exit
Input choice : 3

--The Rental service has been successful--
```

Print Screen of Shoe Menu 4. Delete Tenant

```
-- Alamo Rental Car --
=====
1. View Tenant's List
2. New Tenant
3. Service
4. Delete Tenant
5. Exit
Input choice : 4

Number of List : 2
Name : Kevin
Brand of Car : Fortuner

Number of List : 3
Name : Gideon
Brand of Car : Terios

Input the number you want to delete : 3
```

Print Screen of Shoe Menu 1. View Tenant's List (after deleting number 3)

```
-- Alamo Rental Car --
=====
1. View Tenant's List
2. New Tenant
3. Service
4. Delete Tenant
5. Exit
Input choice : 1

Number of List : 2
Name : Kevin
Brand of Car : Fortuner
```