


Soal Praktikum <i>Practicum Case</i>	 BINUS MALANG Institute of Creative Technology
COMP6362 Data Structures	
Teknik Informatika <i>Computer Science</i>	CS-COMP6362-Var02.1
Periode Berlaku Mulai Semester Genap 2019/2020 <i>Valid on Even Semester Year 2019/2020</i>	Revisi 00 <i>Revision 00</i>

Learning Outcomes

- Explain the concept of data structure and its usage in application
- Demonstrate how to create any learned data structure

Topic

- Session 07 – Circular Queue and Double Linked List

Sub Topics

- Queue Implementation Using Double Linked List
- Circular Queue Implementation

Soal

Case

Mr. Ace wants to run a new business, “ACE FOOD DELIVERY”. He wants to make a program to support his business operation. Therefore, he asks you as his good friend to make a program using the circular double linked list concept. Here are the descriptions of the program:

- Program consists of 4 menus:
 1. View Order List
 2. Add A New Order
 3. Take Order
 4. Exit
- If user chooses **View Order List**, then show **ACE FOOD DELIVERY LIST**.
- If user chooses **Add New Order**, then:
 - Ask user to input **customer name**. The length must be **between 3 and 30 characters**.
 - Ask user to input **food name** that he/she wants to delivery order. The length must be **between 3 and 30 characters**.
 - Ask user to input customer **delivery address**. The length must be **between 6 and 30 characters**.
 - If the data has been successfully inputted, then show the message “-- Add New Order Success --”
- If user chooses **Take Order**, then:
 - If there is no data in the linked list, then show the message “-- There is No Order in The List --”
 - If data is already in the linked list, the program will show **the list of ordered** and ask the user to input **the number of the order** that he/she wants to take. Validate that user must input **between 1 and the total number of all food delivery in the list**.
 - If it was been successfully taken, then show the message “--- Take Order Success ---”

- If user chooses **Exit**, then:
 - Delete all data in the linked list.
 - Program ends.

Please run the EXE file to see the sample program.

Print Screen of Main Menu

```
ACE FOOD DELIVERY
-----
1. View Order List
2. Add New Order
3. Take Order
4. Exit
>> Input choice :
```

Print Screen of View Order List Menu (Menu '1')

```
--- ACE FOOD DELIVERY ORDER LIST ---

+-----+-----+-----+-----+
| No. | Customer Name | Food Order | Delivery Address |
+-----+-----+-----+-----+
|      |                |            |                  |
+-----+-----+-----+-----+
```

Print Screen of Add New Order Menu (Menu '2')

```
Input Customer Name [3..30]: Ami
Input Food Order [3..20]: Mie laksa pedas
Input Delivery address [6..30]: Jl. Tumapel 23, Singosari

--- Add New Order Success ---
```

Print Screen of Take Order Menu (Menu '3')

```
--- ACE FOOD DELIVERY ORDER LIST ---

+-----+-----+-----+-----+
| No. | Customer Name | Food Order | Delivery Address |
+-----+-----+-----+-----+
| 1. | Ami          | Mie laksa pedas | Jl. Tumapel 23, Singosari |
| 2. | Boneng       | Ayam kremes    | Jl. Batubatu 88, Malang  |
| 3. | Charlie      | lalapan komplit | Jl. Sri Kandi 198, Malang |
+-----+-----+-----+-----+

Input Number of The Order [1..3]: 2

--- Take an Order Success ---
```