


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

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

Topic

- Session 03 - Queue

Sub Topics

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

Soal

Case

Mr. Chow is a chinese food restaurant owner. He needs an application to record the customer and the order that they make. Here are the descriptions of the application :

- The application has a customer list view and which customers must be served first.
- Chinese Food Restaurant application consist 4 menu, which are:
 1. Order List
 2. Add Order
 3. Take Order
 4. Exit
- If user chooses **menu 1. Order List**, then:
 - The application will show the list of table number, customer's name, food, and quantity in the table.
- If user chooses **menu 2, Add Order**, then:
 - The application will ask the user to input table number. Validate that table number must be between 1 and 20.
 - The application will ask the user to input customer's name.
 - The application will ask the user to input Food. Validate that food character must be between 5 and 20.

- The application will ask the user to input Quantity. Validate that quantity must be between 1 and 1000 and show the message “--- Add New Order Success ---”.
- If user chooses **menu 3. Take Order**, then:
 - If there is any data in the application, the application will delete the first data in the list and show the message “Order Has Been Delivered to Table.”.
 - If there is no data in the application, then application will show the message “There Are No Order Available.”.
- If user chooses **menu 4. Exit**, then:
 - Delete all data.
 - Program ends.

Please run the EXE file to see the sample program.

Print Screen of Main Menu

```
CHINEESE FOOD RESTAURANT
+++++

1. Order List
2. Add Order
3. Take Order
4. Exit

>> Input your choice :
```

Print Screen of Menu 1. Order List with any data

```
--- Order Chinese Food ---

+-----+-----+-----+-----+
| No. | Table Number | Customers Name | Food | Quantity |
+-----+-----+-----+-----+
| 1. | 3 | Iwan | Special Fried Rice | 2 |
| 2. | 7 | | Special Fried Noodle | 1 |
| 3. | 2 | Linda | Capcay | 2 |
| 4. | 2 | Linda | Fuyung Hai | 1 |
| 5. | 9 | Mei | Siobak | 2 |
+-----+-----+-----+-----+
```

Print Screen of Menu 1. Order List after Menu 3. Take Order running and delete the first data in the list.

```

      --- Order Chinese Food ---

```

No.	Table Number	Customers Name	Food	Quantity
1.	7		Special Fried Noodle	1
2.	2	Linda	Capcay	2
3.	2	Linda	Fuyung Hai	1
4.	9	Mei	Siobak	2

Print Screen of Menu 1. Order List with no data

```

      --- Order Chinese Food ---

```

No.	Table Number	Customers Name	Food	Quantity

Print Screen of Menu 2. Add Order

```

Input Table Number [1..20]: 3
Input Customers Name: Iwan
Input Food [5..20]: Special Fried Rice
Input Quantity [1..1000]: 2

--- Add New Order Success ---

```

Print Screen of Menu 3. Take Order

```

Order Has Been Delivered to Table.

```

Print Screen of Menu 3. Take Order and if no other order

```

There Are No Order Available.

```