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

Learning Outcomes
- Explain the concept of data structure and its usage in application

Topic
- Session 01 - Array and Structure

Sub Topics
- Array of Struct
- Struct Declaration
- Struct Implementation
- Array of Struct Implementation

Soal
Case

BLUE Cake Shop is a small cake shop. Mr. Krauser, the manager of BLUE Cake Shop, wants to change the cashier system to be paperless. He needs a program that can handle his cake shop transaction. He asks you as a skillful programmer to make a program like this:

- Program always shows List of Cakes which contains **No**, **Cake Code**, **Cake Name**, **Available**, and **Price** of the available cakes. The List of Cakes:

```
No. | Cake Code | Cake Name            | Available | Price
-------------------------------------------------------------
01. | CK001     | Blueberry Cake       |        13 | Rp. 25000,-
02. | CK009     | Chocochip Cake       |         5 | Rp. 20000,-
03. | CK017     | Mayonaise Cake       |        24 | Rp. 30000,-
04. | CK023     | Strawberry ShortCake |         7 | Rp. 17500,-
-------------------------------------------------------------
```

- Program consists of 3 menus:
  1. Sell
  2. Add Stock
  3. Exit

- If user chooses **Sell**, then:
  - Ask user to input **cake code** he/she wants to sell**.**
  - **The cake code** must **consist of 5 characters** and be available in **the list of cakes**. If user inputs **the cake code** other than the ones in the list, the program will show the message **"--- The Cake Code doesn't exist ---"** and ask *user* to input again. **The cake code** is case sensitive.
  - Then ask user to input **the quantity**.
  - **The quantity** must be **between 0 and x**, where **x = [available chosen cake]**.
  - The user cannot sell the cakes more than **the quantity** available on the list. If user tries to do so, show the message **"...The quantity of cake is not enough..."**
  - If user succeeds to sell, then show:
    "Total Price is: Rp [price of cake],- x [quantity of cake] = Rp [total price],-"
    "--- Thank You ---"
  - Then subtract **the available cakes** with **the quantity of cake** that has been sold.
    [available cakes] = [available cakes] - [quantity of cakes that has been sold]

- If user chooses **Add Stock**, then:
  - Ask user to input **the cake code** he/she wants to add to the list**.**
  - The cake code must **consist of 5 characters** and be available in **the list of cakes**. If user inputs **the cake code** other than the ones in the list, program will show the message **"--- The Cake Code doesn't exist ---"** and ask *user* to input again. **The cake code is** case sensitive.
  - Then ask user to input **the quantity**.
  - Validate **the quantity of cake** must be **between 1 and 10**.
  - If user succeeds to add stock, then show:
    "--- Adding Stock Success ---"
  - Then add **the available cakes** with **the quantity of cake** that has been added.
    [available cakes] = [available cakes] + [quantity of cakes added]

- If user chooses **Exit,** then the program ends.

Please run the EXE file to see the sample program.

Print Screen of Main Menu

```
BLUE CAKE SHOP CASHIER
======================

No. ¦ Cake Code ¦ Cake Name            ¦ Available ¦ Price
-------------------------------------------------------------
01. ¦ CK001     ¦ Blueberry Cake       ¦        13 ¦ Rp. 25000,-
02. ¦ CK009     ¦ Chocochip Cake       ¦         5 ¦ Rp. 20000,-
03. ¦ CK017     ¦ Mayonaise Cake       ¦        24 ¦ Rp. 30000,-
04. ¦ CK023     ¦ Strawberry ShortCake ¦         7 ¦ Rp. 17500,-
-------------------------------------------------------------

Menu :
1. Sell
2. Add Stock
3. Exit
Input choice :
```

Print Screen of Sell Menu (Menu '1')

```
Input Cake Code [5 chars]: CK009
Input Quantity [0..5]: 3


Total Price is : Rp 20000,- x 3 = Rp 60000,-

--- Thank You ---
```

Print Screen of Add Stock (Menu '2')

```
Input Cake Code [5 chars]: CK023
Input Quantity [1..10]: 7


--- Adding Stock Success ---
```