Soal Praktikum *Practicum Case*	
COMP6362 Data Structures	
Teknik Informatika *Computer Science*	**CS-COMP6362-Var03.3**
Periode Berlaku Mulai Semester Genap 2020/2021 *Valid on Even Semester Year* 2020/2021	**Revisi 00** *Revision 00*

Learning Outcomes
- Construct data structure in application

Topic
- Session 04 – Stack and Implementation

Subtopics
- Array Representation
- Linked Representation
- Operations

Soal
Case

Mr. Tony is a manager from a Telkom Information Center. One day, Mr. Tony wants to change the old information system of his information center into a new system. So, he asks you as a skillful programmer to make a program using a linked list concept. Here are the descriptions of the program:
- The program consists of 3 menus:
  1. Information List
  2. Add (PUSH) New Information
  3. Delete (POP) Lastest Information
  4. Delete all (POP ALL) Information
  5. Exit

- If user chooses **Information List**, then show **the information list** that contains **No**, **Name**, **Type**, **Address**, and **Phone** of people or company or society.

- If user chooses **Add (PUSH) New Information**, then:
  - Ask user to input **the name of person** or **company** or **society** that he/she wants to add to the list. Its length must be **between 3 and 20 characters**.
  - Ask user to input **the type of new name**. **The type of new entry name** must be **between "person"**, **"company"**, or **"society"**.
  - Ask user to input **Address**. **Its address** must be **between 6 and 20 length**.
  - Ask user to input **Phone**. **Its phone** must be **between 9 and 12 length**.
  - If data has been successfully added, show the message **"--- Add New Information Success ---"**

- If user chooses **Delete (POP) Recently Added Information**, then:
  - If there is any data in the application, the application will delete the first data in the list and show the message "The recently added information is being delete.".
  - If there is no data in the application, then application will show the message "There are no information available.".

- If user chooses **Delete All (POP ALL) Items**, then:
  - The application will delete all data in the list and show the message "All items have been deleted.".

- If user chooses **Exit**, then:
  - Program ends.

Please run the EXE file to see the sample program.

Print Screen of Main Menu

```
INFORMATION ADMINISTRATOR
=========================

1. Information List
2. Add (PUSH) New Information
3. Delete (POP) Lastest Information
4. Delete All (POP All)  Information
5. Exit

>> Input your choice :
```

Print Screen of Item List Menu ('Menu '1') with no data.

```
                    --- INFORMATION LIST ---

------+---------------------+--------+------------------------+---------------
| No. | name                | type   | address                |    phone     |
------+---------------------+--------+------------------------+---------------
------+---------------------+--------+------------------------+---------------
```

Print Screen of Item List Menu ('Menu '1') with any data.

```
                    --- INFORMATION LIST ---

------+---------------------+--------+------------------------+---------------
| No. | name                | type   | address                |    phone     |
------+---------------------+--------+------------------------+---------------
|  1.| AXA                  | company | Lawang Malang         | 0342 806352  |
|  2.| The Markonah         | society | Jl. Mangga 20 Malang  | 085649735926 |
------+---------------------+--------+------------------------+---------------
```

Print Screen of Add (PUSH) New Information Menu (Menu '2')

```
Input Name of person/company/society [3..20]: The Markonah

Input The Type of New Entry Name [person/company/society]: society

Input Address of New Entry Name [6...20]: Jl. Mangga 20 Malang

Input Phone of New Entry Name [9..12]: 085649735926




--- Add New Information Success ---
```

```
Input Name of person/company/society [3..20]: AXA

Input The Type of New Entry Name [person/company/society]: company

Input Address of New Entry Name [6...20]: Lawang Malang

Input Phone of New Entry Name [9..12]: 0342 806352




--- Add New Information Success ---
```

Print Screen of Item List Menu (Menu '3')

```
The information about AXA (company) is being delete.
```

Print Screen of Item List Menu (Menu '3') and there are no item available.

```
There are no information available.
```

Print Screen of Item List Menu (Menu '4') and all information has been deleted.

```
All informations have been deleted.
```