

## Assignment 01 – Encapsulation

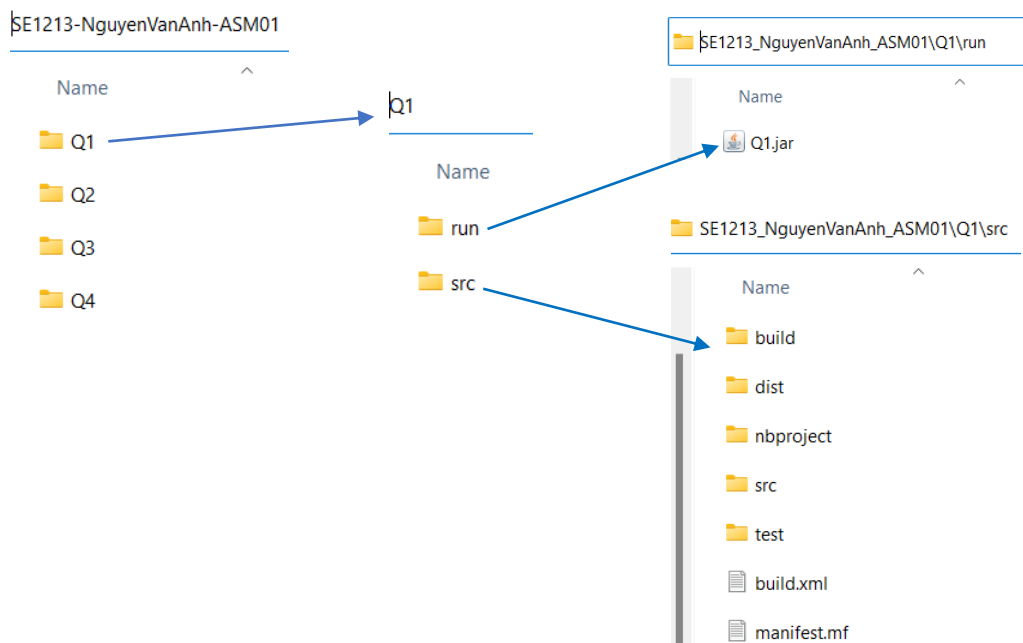
Duration: 70'

### Software Requirements

- Netbean 8.2 or later, JDK 8 or later, Notepad, Command Prompt, WinRAR / WinZip with Windows Explorer (File Explorer) on Windows 7 and above.

### Instructions

- Step 1: Students download the given materials from LMS.
- Step 2: Students read questions and prepare answers in the given template.
- Step 3: Prepare to submit the answer:
  - For each question (e.g., question **Q1, Q2, Q3,...**), please create two sub-folders: **run** and **src**.
  - Copy the \*.**jar** file into the **run** folder, and the entire project source code file into the **src** folder.
- Step 4: Submit a solution for each question:
  - Create a folder named : RollNumber\_FullName\_ASM0x (**x : 1, 2, or 3**) that contains folders (created Step 03 ) as the below figure:



- Use WinRAR / WinZip tool to compress the **RollNumber\_FullName\_ASM0x** folder and submit it to LMS

#### ❖ Importance:

- Do not change the *names of the folders specified (or required)* in the exam and *the name of submit folder* in Step 04 must be correct. If you change it (incorrect), the grading software can not find the execute file (.jar) to score, thus the exam result will be 0.

#### ❖ Question 1: (10 marks)

Do not pay attention to the real meaning of objects, variables, and their values in the questions below.

Write a class **Supplier** (in the default package of the NetBean) with the following information:

<b>Supplier</b>
-----------------

Where: \_\_\_\_\_

- int : id - String : name - String : address - String : phone - boolean: status
+Supplier () +Supplier (id:int,name:String,address:String,phone:String) +getId(): int +getName(): String +setName(): void +getAddress(): String +setAddress(): void +getPhone (): String +setPhone(): void +getStatus (): boolean +toString():String

- Check validation (apply to constructors and setters):
  - check the **name** is not empty and length from 5 to 50 characters. - if **name** is valid then **status** is true and otherwise
  - check the **phone** must be started with '0' and length is 9 or 10 digits.
- Supplier () - default constructor (numeric value is 0, string value is empty and boolean value is false)
- Supplier(id:int,name:String, address:String, phone: String) - constructor, which sets values to id, name, address, phone )
- setName(value:String):void - If value invalid then set name to "no name"
- getName (): String – return Supplier name with title case
- getAddress (): String – return address with title case
- setPhone(value : String): void –If value is invalid then set to "000.000.0000"
- Override toString() method to return a string that contains all the information of the Supplier: [id, name, address, phone, status]. If status is true then print "Available" otherwise "Unavailable"

***Do not format the result.***

The program output might look something like this:

```
#Case 1: [1.5 marks]
1.Test Name
2.Test Phone
3.Test toString()
Enter Test Case No.(1 | 2 | 3):1
Enter name:abc
OUTPUT:
No Name,false
-----

#Case 2: [1,5 marks]
1.Test Name
2.Test Phone
3.Test toString()
Enter Test Case No.(1 | 2 | 3):1
Enter name:khai an company, hcm city
OUTPUT:
Khai An Company, Hcm City,true
-----

#Case 3: [1.5 marks]

1.Test Name
2.Test Phone
```

3.Test toString()  
Enter Test Case No.(1 | 2 | 3):2  
Enter phone:909123456  
OUTPUT:  
000.000.0000

-----

#Case 4: [1.5 marks]

1.Test Name  
2.Test Phone  
3.Test toString()  
Enter Test Case No.(1 | 2 | 3):2  
Enter phone:09012345689  
OUTPUT:  
000.000.0000

#Case 5: [2.0 marks]

1.Test Name  
2.Test Phone  
3.Test toString()  
Enter Test Case No.(1 | 2 | 3):3  
Enter id:1  
Enter name:khai an company hcm city  
Enter address:quan 1 - tpHCM  
Enter phone:0908123456  
OUTPUT:  
1,Khai An Company Hcm City,Quan 1 - Tphcm,0908123456,Available

#Case 6: [2.0 marks]

1.Test Name  
2.Test Phone  
3.Test toString()  
Enter Test Case No.(1 | 2 | 3):3  
Enter id:2  
Enter name:khai  
Enter address:quan 1, viet NAM  
Enter phone:0908999888  
OUTPUT:  
2,No Name,Quan 1, Viet Nam,0908999888,Unavailable