| | Type: | **Short Assignment** |
|---|---|---|
| **LAB211 Assignment** | Code: | **J1.S.P0063** |
| | LOC: | **25** |
| | Slot(s): | **1** |

## Title

Input and display Person Info.

## Background

N/A

## Program Specifications

Write a program allow user to input and sort person information (name, address, salary)

- Validate salary is a number or not

- Sort Person list ascending

- Show 3 person information by ascending of salary

*Function details:*

**Function 1:** Display Gui And Input Data.

- Users run the program. The program prompts users input Data.

- Auto next **Function 2**.

**Function 2:** Perform function

- Program display input information

- Sort person list by salary ascending and exit program

*Expectation of User interface:*

```
=====Management Person programer=====
Input Information of Person
Please input name: NghiaNV
Please input address: Ha Noi
Please input salary: abc
You must input digidt.
Please input salary: -2000
Salary is greater than zero
Please input salary: 2000
Input Information of Person
Please input name: LienVT
Please input address: Ha Noi
Please input salary: 500
Input Information of Person
Please input name: TuanNT
Please input address: Ha Noi
Please input salary: 1000
```

```
Information of Person you have entered:
Name: LienVT
Address: Ha Noi
Salary: 500.0

Information of Person you have entered:
Name: TuanNT
Address: Ha Noi
Salary: 1000.0

Information of Person you have entered:
Name: NghiaNV
Address: Ha Noi
Salary: 2000.0
```

## Guidelines

**Student must implement methods**

- inputPersonInfo

- displayPersonInfo

- sortBySalary

**in startup code.**

**Example:**

Create a class named Person with properties:

private String name;

private String address;

private double salary;

+ Create constructors: name, address, salary

+ Create get/set functions for Person properties

+ Create function Person inputPersonInfo (String name, String address, String sSalary):
- Validate salary is a number or not.

- If salary is not a number, prompt use to re-input and show error message that salary must be a number.

- If salary is a negative number prompt use to re-input and show error message that salary must be a positive number.

+ Create a function displayPersonInfo(Person person)
- Display person properties

+ Create Person[] sortBySalary(Person[] person):
Sort person by BubbleSort algorithm

+ Create an array of 3 person.

**Function 1:** Input Person information
- Program prompt user to input name, address, salary of Person

- Create a function: Person inputPersonInfo (String name,String address, String sSalary) throws Exception

  - Input:

    - name: name of Person

    - address: address of Person

    - salary: salary of Person

  - Return value:

    - Person object.

    - Exception("Salary is greater than zero"); if input invalid

    - Exception("You must input Salary."); if input invalid

    - Exception("You must input digit."); if input invalid

**Function 2:** Display Person information.
- Program show all Person properties just input

- Create a function: void displayPersonInfo(Person person)

  - Input:

- person: Person object

**Function 3:** Sort Person array by salary ascending.
- o Program display all Person properties sort by Person's salary

- o Create function: Person[] sortBySalary(Person[] person) throws Exception

  - Input:

    - person: Person array need to be sorted.

  - Return value:

    - Person array sorted by salary.

    - Exception("Can't Sort Person"); If there a errors