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| **LAB211Assignment** | **Type:** | **Short Assignment** |
| **Code:** |  |
| **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 **Function2**.

**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:HaNoi

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:HaNoi

Please input salary:500

Input Information of Person

Please input name:TuanNT

Please input address:HaNoi

Please input salary:1000

Information of Person you have entered:

Name:LienVT

Address:HaNoi

Salary:500.0

Information of Person you have entered:

Name:TuanNT

Address:HaNoi

Salary:1000.0

Information of Person you have entered:

Name:NghiaNV

Address:HaNoi

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 functiondisplayPersonInfo(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: addressof 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.

* Program display all Person properties sort by Person’s salary
* 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