

LAB211Assignment

Type:
Code:
LOC:
Slot(s):

Short Assignment
J1.S.P0063
25
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:

Menu:

1. **Input person information**
2. **Show 3 persons information by ascending of salary**
3. **Exit**

```
====Management Person programmer====  
Input Information of Person  
Please input name:NghiaNV  
Please input address:HaNoi  
Please input salary:abc  
You must input digit.  
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 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)
 - 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.

- 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.