

Subject:

TC4002 - Analysis, Design and Construction of Software Systems

Professor:

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L2.2 - Development Exercises**Student:**

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10) Create a class called myPowerList, implement methods for

- Adding items
- Removing the n-th item

```
Before adding: [1, 3, 5, 4]
After adding:  [1, 3, 5, 4, 10]
Before removing: [1, 3, 5, 4, 10]
After removing: [1, 3, 5, 10]

Process finished with exit code 0
```

11) Add a method in myPowerList to return the sorted list

[Do not use list.sort, implement the algorithm iterating in the list]

```
Before sorting: [1, 7, 2, 27, 88, 3, 5, 4]
After sorting:  [1, 2, 3, 4, 5, 7, 27, 88]

Process finished with exit code 0
```

12) Add a method in myPowerList to merge another list with the current list

- Lmerge (merge the list as prefix)
- Rmerge (merge the list as suffix)

```
Original list: [1, 7, 2, 27, 88, 3, 5, 4]
Merging from the left: [7, 8, 9, 10, 1, 7, 2, 27, 88, 3, 5, 4]
Merging from the right: [7, 8, 9, 10, 1, 7, 2, 27, 88, 3, 5, 4, 7, 8, 9, 10]

Process finished with exit code 0
```

13) Add a method in myPowerList to save the current list as a text file

- saveToFile(filename)

```
myPowerList.txt successfully created

Process finished with exit code 0
```

.idea	27/feb./2020 03:13 p. m.	File folder	
include	20/feb./2020 09:17 p. m.	File folder	
Lib	20/feb./2020 09:17 p. m.	File folder	
Scripts	20/feb./2020 09:18 p. m.	File folder	
class_example.py	21/feb./2020 01:23 p. m.	PY File	2 KB
lab2-10.py	21/feb./2020 02:23 p. m.	PY File	2 KB
lab2-11.py	21/feb./2020 03:29 p. m.	PY File	2 KB
lab2-12.py	21/feb./2020 04:09 p. m.	PY File	3 KB
lab2-13.py	21/feb./2020 05:02 p. m.	PY File	3 KB
lab2-14.py	21/feb./2020 08:17 p. m.	PY File	3 KB
lab2-15.py	21/feb./2020 10:50 p. m.	PY File	4 KB
lab2-15-records.txt	22/feb./2020 10:53 a. m.	TXT File	1 KB
myPowerList.txt	27/feb./2020 03:13 p. m.	TXT File	1 KB
pyenv.cfg	20/feb./2020 09:17 p. m.	CFG File	1 KB

- 14) Add a method in myPowerList to read values for a List from a Text file
- readFromTextFile(filename)

```
myPowerList.txt successfully created
The content of myPowerList.txt is:
1
7
2
27
88
3
5
4

Process finished with exit code 0
```

- 15) Create a class to manage a directory of users containing data

- Name
- Address
- Phone
- Email

The class must be enable:

1. Creation of new record
2. Save all records in a file
3. Load records from a file
4. Search and get data from a given record

```
===== Content of the Directory =====
Name: Juan Stenner      Address: Paseos del Sol      Phone: 33-33-33-33-33      email: juan.stenner@oracle.com
Name: Francisco Corral  Address: Ciudad del Sol      Phone: 11-11-11-11-11      email: francisco.corral@hotmail.com
Name: Guido Python     Address: Guido Address       Phone: 22-22-22-22-22      email: guido.python@yahoo.com
===== Adding a new record =====
Name: Juan Stenner      Address: Paseos del Sol      Phone: 33-33-33-33-33      email: juan.stenner@oracle.com
Name: Francisco Corral  Address: Ciudad del Sol      Phone: 11-11-11-11-11      email: francisco.corral@hotmail.com
Name: Guido Python     Address: Guido Address       Phone: 22-22-22-22-22      email: guido.python@yahoo.com
Name: Esther Rivas     Address: Zapopan            Phone: 44-44-44-44-44      email: esther.rivas@hotmail.com
===== Content of lab2-15-records.txt =====
Name: Juan Stenner      Address: Paseos del Sol      Phone: 33-33-33-33-33      email: juan.stenner@oracle.com
Name: Francisco Corral  Address: Ciudad del Sol      Phone: 11-11-11-11-11      email: francisco.corral@hotmail.com
Name: Guido Python     Address: Guido Address       Phone: 22-22-22-22-22      email: guido.python@yahoo.com
Name: Esther Rivas     Address: Zapopan            Phone: 44-44-44-44-44      email: esther.rivas@hotmail.com

===== Searching and printing a random record =====
Name: Juan Stenner      Address: Paseos del Sol      Phone: 33-33-33-33-33      email: juan.stenner@oracle.com

Process finished with exit code 0
```