Assignment3 Guideline

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정진성

- Instruction

You do not need to compile this file because it was written in Python code.

But since I imported numpy, You have to do "pip install numpy" If the it is not installed.

To execute this file, first enter the path where the file "clustering.py" is located.

Type "python clustering.py input_data_file_name n Eps MinPts" in the path.

n: number of clusters for the corresponding input data

Eps: maximum radius of the neighborhood

MinPts: minimum number of points in an Eps-neighborhood of a given point

If you enter the wrong arguments, an error message will be printed.

Then check the arguments and re-enter it.

```
PS C:\Users\wjdwl\Desktop\새 폴더\4-1\데이터사이언스\ass3> py .\clustering.py input1.txt 8 15 22

PS C:\Users\wjdwl\Desktop\새 폴더\4-1\데이터사이언스\ass3> py .\clustering.py input2.txt 5 2 7

PS C:\Users\wjdwl\Desktop\새 폴더\4-1\데이터사이언스\ass3> py .\clustering.py input3.txt 4 5 5

PS C:\Users\wjdwl\Desktop\새 폴더\4-1\데이터사이언스\ass3> py .\clustering.py incorrect.txt 4 5 5

check your input data file

PS C:\Users\wjdwl\Desktop\새 폴더\4-1\데이터사이언스\ass3> py .\clustering.py input3.txt 4 5 5 4

check your arguments

PS C:\Users\wjdwl\Desktop\새 폴더\4-1\데이터사이언스\ass3> py .\clustering.py input3.txt 4 five 5

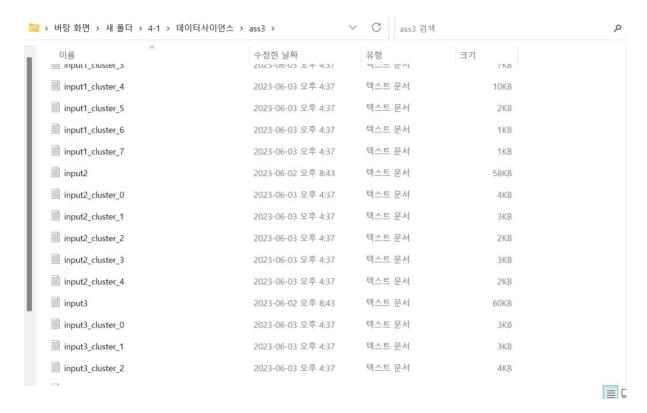
check your type of arguments

PS C:\Users\wjdwl\Desktop\새 폴더\4-1\데이터사이언스\ass3> py .\clustering.py input3.txt 4 five 5

check your type of arguments
```

<command example>

If the program had operated normally, it would have generated output files tailored to the output format.



<generated output files>

```
X
     input1_cluster_2
파일
       편집
              보기
                                                                                                       (3)
418
572
839
945
1122
1147
1178
1622
1821
1863
2014
2114
2890
3281
3388
3544
3969
4260
4491
5171
5206
5279
5349
5388
5630
5712
                                                                                                           5860
6332
6500
6942
7224
7395
7514
7556
161
2231
                                                                                          UTF-8
 줄 1, 열 1
                                                            100%
                                                                       Windows (CRLF)
```

<input1_cluster_2.txt>

```
C:\Users\wjdwl\Desktop\새 폴더\4-1\데이터사이언스\ass3>PA3.exe input1
98.97037점
C:\Users\wjdwl\Desktop\새 폴더\4-1\데이터사이언스\ass3>PA3.exe input2
94.89474점
C:\Users\wjdwl\Desktop\새 폴더\4-1\데이터사이언스\ass3>PA3.exe input3
99.97736점
```

<scores>

- **Environment**

The environment is python 3.10.2 version.

numpy version: 1.24.3