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Projet 3 - Gestion d'agenda

Filter the events of a calendar according to several filters

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**import** sys

**import** codecs

**def** is\_ok\_filter**(**s**,** filters**):**

"""

Receive string s and list of parameters list\_argu and return true

if it conforms to at least one filter desired

"""

res **=** **False**

n **=** len**(**filters**)** # number of filters

i **=** 0

# test the until the string is conform to a filter or all the filters were tested

**while** **not** res **and** i **<** n**:**

nb\_ok **=** 0 # number of parameters conformed

**for** j **in** range**(**len**(**filters**[**i**])):**

**if** filters**[**i**][**j**][-**1**]** **in** s**:**

nb\_ok **+=** 1

**if** nb\_ok **==** len**(**filters**[**i**]):**

res **=** **True**

i **+=** 1

**return** res

# obtain all the arguments

list\_argu **=** sys**.**argv

fileIN **=** list\_argu**[**1**]**

fileOUT **=** list\_argu**[**2**]**

# formate the arguments so they can be used

# to filter the events :

# the sublist is one filter composed of several

# subsets (parameters),themselves divided in two parts,

# the parameter itself and the one desired

final\_list **=** **[]**

**for** elem **in** list\_argu**[**3**:]:**

elem **=** elem**.**split**(**'and'**)**

final\_list**.**append**(**elem**)**

**for** i **in** range**(**len**(**final\_list**)):**

**for** j **in** range**(**len**(**final\_list**[**i**])):**

final\_list**[**i**][**j**]** **=** final\_list**[**i**][**j**].**strip**().**split**(**':'**)**

fd **=** codecs**.**open**(**fileIN**,** "r"**,** "utf-8"**)**

line **=** fd**.**readline**()**

head **=** ""

# set the headers of the file in var head

**while** line **!=** "BEGIN:VEVENT\r\n"**:**

head **+=** line

line **=** fd**.**readline**()**

# set the events conforming to at least one filter in a list

filtered\_list **=** **[]**

**while** line **!=** "END:VCALENDAR\r\n"**:**

newEvent **=** line

line **=** fd**.**readline**()**

**while** line **!=** "END:VEVENT\r\n"**:**

newEvent **+=** line

line **=** fd**.**readline**()**

newEvent **+=** line

**if** is\_ok\_filter**(**newEvent**,** final\_list**):**

filtered\_list**.**append**(**newEvent**)**

line **=** fd**.**readline**()**

# last line

tail **=** line

fd**.**close**()**

# write the list of events into the out file

file **=** codecs**.**open**(**fileOUT**,** 'w'**,** 'utf-8'**)**

file**.**write**(**head**)**

**for** i **in** range**(**len**(**filtered\_list**)):**

file**.**write**(**filtered\_list**[**i**])**

file**.**write**(**tail**)**

file**.**close**()**