CERGY PARIS
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- UFR Sciences and Technologies -

Computer Science License 3 (L3)

Python project

Management of business cards (vCard) and calendars (iCal) in digital format.

The project report

Name:
- **KESKES Nazim**

Group A

Academic year: 2022/2023

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1. Introduction:

Many organizations use different applications for the continuation of their work, including the use of calendars and business cards. Indeed, there are widely used formats for storing this data as files.

The ICS file is a data format proposed by RFC 55451 for calendar data exchange. It is supported by various calendar and messaging applications such as Google Calendar, Microsoft and Apple iCal.

The VCF file is a digital file format for storing contact information and managing virtual business cards. The format is widely used for data exchange between popular information exchange applications.
Microsoft Outlook supports opening VCF files.

Nowadays, this need is becoming more and more delicate. Hence the interest in creating an application that facilitates the handling and exploitation of these types of files and their information.

2. Presentation of the subject:

As part of the "Python" minor project, we created an application in Object programming that allows the manipulation of business cards (virtual card) in digital format and calendar events. In order to facilitate their use in a professional context. The main actions are:

- Read and display a business card file (vcf) or a calendar file (ics).
- Modify the content via a graphical interface and save these changes.
- Transformation of a file into an HTML code fragment or a CSV file.

3. Class diagram:

In order to facilitate the understanding of the source code. Here is a summary diagram of the implemented classes and the links between them.
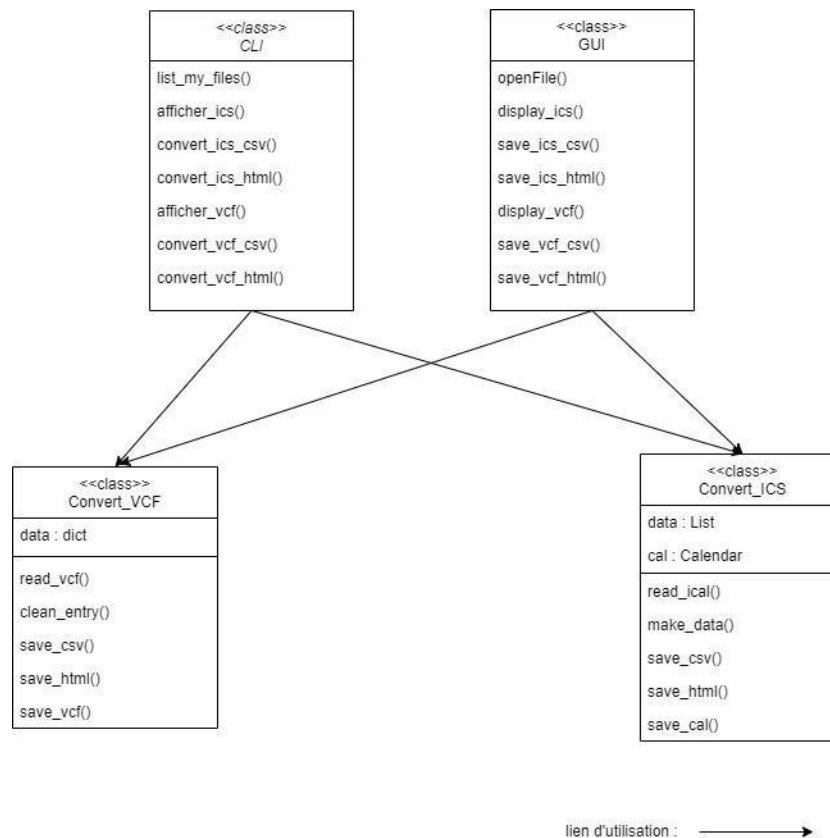

Diagram: Class summary diagram

4. Design of graphic identity elements:

Now, for the main elements of the graphic identity for the realization of the graphic part GUI :

- The main fonts used are : **Poppins** and **Roboto**.
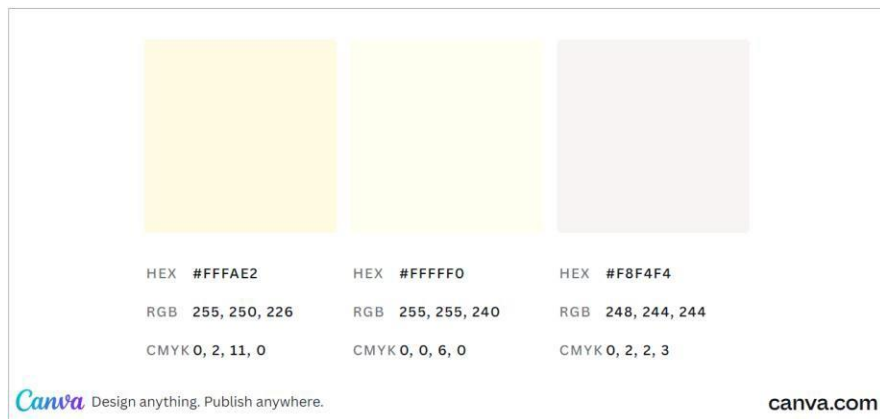- Here is the color palette used:

Figure: Color palette.

- Here is a prototype of the main page when the software is launched:

Figure: Prototype of the main page.

5. Features achieved:

Here are the features realized in the 2 requested modes:

a) Console mode "CLI":

To launch the console part, you type : **python3 cli.py** then specify the input argument :
- **No argument:**
  The program offers you to type "-h" to get help.

- **" -h " :**
  It displays the possible options and their roles (or help).

- **"-d" + directory:**
  It displays all files (ICS / VCF) in the current directory and its subdirectories.
  Note: If you do not specify the directory, it displays an error.

- **"-i" + file :**
  It displays the content of the input VCF or ICS file formatted.

- **"-i" + file + "-h" save_file :**
  It generates the file "save_file.html" which represents the HTML fragment of the input VCF or ICS file.
  Note: if no backup file name is specified. The name of the input file will be taken by default.

- **"-i" + file + "-c" save_file :**
  It generates the file "save_file.csv" which represents the CSV workbook of the input VCF or ICS file.
  Note: if no backup file name is specified. The name of the input file will be taken by default.

  - **"-i" + file + other argument:**
    It displays an error message.

- **Another argument:**
  It displays an error message.

b) Graphical "GUI" mode:

To launch the graphic part, you type: **python3 gui.py** :

- Click on the **Open** button, a dialog box appears to list only the VCF and ICS files in the current directory and its sub-directories.
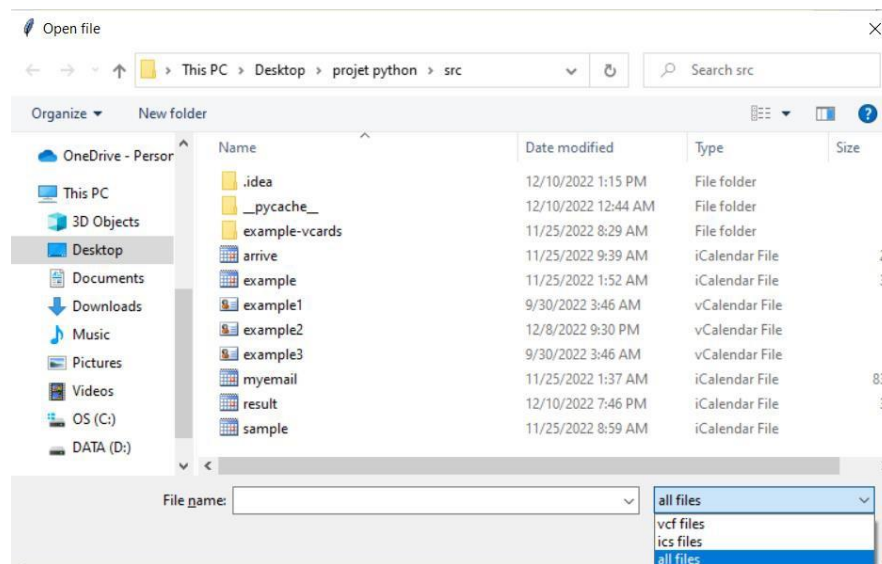

Figure: dialog window.

- To view the contents of a file, select a file in the above dialog box:

Figure: Example of the contents of a VCard file.

Figure: Example of the content of an iCalendar file.

- Click on **Save CSV** to save the file in HTML format:

- Click on **Save HTML** to save the file in HTML format:

6. Conclusion:

To conclude, the objectives set in the provided GANTT diagram were almost all accomplished by respecting the instructions of realization. Indeed, the client in CLI and GUI mode can view the list of vCard or iCal files in a given directory. Moreover, it can also display its formatted content. Finally, it can generate a CSV file or HTML fragment with the corresponding microformat.

7. Acknowledgement: