Institut supérieur d'informatique	Année Universitaire 2019-2020

MODULE : Programmation Python

Mini projet

Niveau : L1 CS

Python Project

Deadline: May /2020

Subject Description:

Recruitment Company wants to computerize its information system. The new system will be used by administrator and job seekers.

A. Administrator:

The administrator should sign in (password requested) in order to manage the different job offers. Basically four operations can be done: Add new job offer, Update a job offer and delete a job offer. Correspondingly, program could display the list of all job seekers that apply all job offers or who applied for a given job offer.

1. *Add new job offer:*

   In this option, the user has the possibility to add a new job offer. The program will prompt the administrator to input the following information:

   - Enter a code for the job offer: Job ID (should be unique)
   - Company information: name, address, phone number and email…
   - Requested profile description: Degree, qualification, experience …
   - Mission description

2. *Brows and Update a job offer:*

   In this option, the user has the possibility to change a given job offer that were added before. Administrator should, enter the job offer code and the program reloads information to be modified. The updated offer should be stored in file.

3. *Delete a job offer:*

   In this option, the user could change a given job offer that were added before. Administrator input the code of the job offer, in order to remove it. The program, should delete all the corresponding information about the offer from the job offers file.

4. *Brows the list of job seekers:*

   Your program should as well give the administrator the option to list down:

   - All the job seekers that applied for job offers
   - All the job seekers that applied for the same job offer.

B. job seeker

The job seeker should sign in (password requested) in order to: search a job offer and apply for a job offer.

1. *Search a job offer:*
   In this option, the user could search a job offer by: job offer ID, domain (computer science, business…) or location. Then, the program displays the corresponding list of job offer.
2. *Brows and Apply for a job offer:*
   In this option, the list of available job offer is displayed, and user could apply for a job. The program will prompt the user to enter necessary information: Personal information and Professional information.
   - Personnel information: ID card, name, address, phone number…
   - Education: University degree…
   - Professional information: Experience, competence/skills …
3. *Update job seeker information:*

Job seeker enters his ID card, the system verifies it and reloads information to be modified and update the corresponding file.

Required task are:

Create a python program to respond to the described system above. During the development of this project, students are supposed to use the 'tkinter' module to develop graphical interfaces.

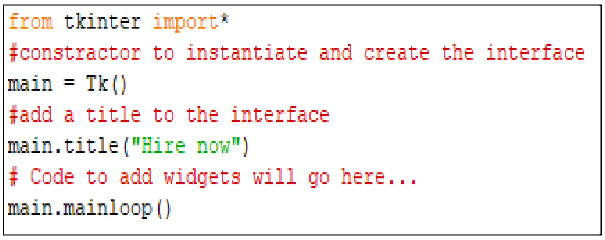
The system should be able to control the input of users and display a message of error (message box). As well, it has to protect information of job seeker and administrator session by passwords. All information and details about Job seeker input and job offer should be stored in files.

Appendices

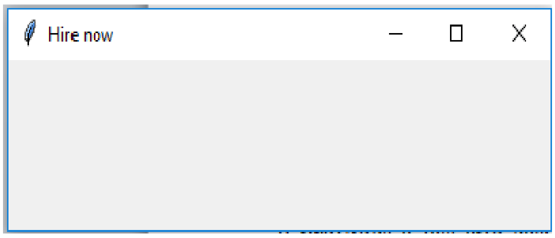
Python provides various options for developing graphical user interfaces (GUIs) as : Tkinter, wxPython, PyQt, JPython …

Tkinter (python 2) and tkinter(python 3) is the standard GUI library for Python. It provides a fast and easy way to create GUI applications. Tkinter provides a powerful object-oriented interface to the Tk GUI toolkit.

1. Create the interface:



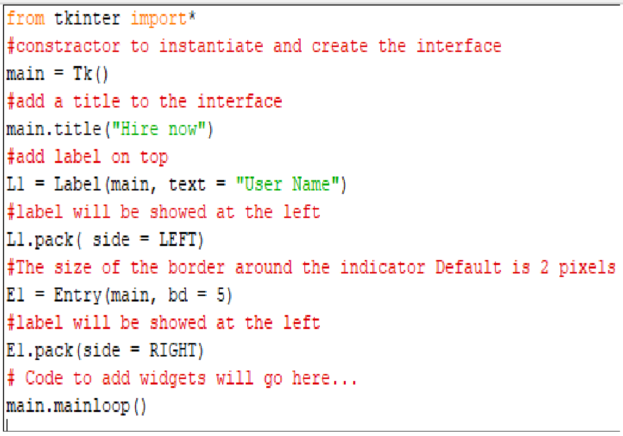
```
from tkinter import*
#constractor to instantiate and create the interface
main = Tk()
#add a title to the interface
main.title("Hire now")
# Code to add widgets will go here...
main.mainloop()
```



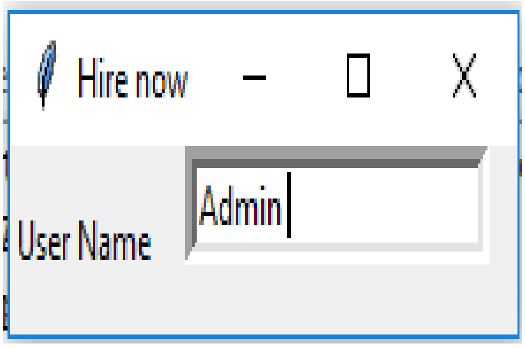
The Entry widget is used to accept single-line text strings from a user.

- Display multiple lines of text that can be edited, then you should use the Text widget.
- Display one or more lines of text that cannot be modified by the user, then you should use the Label widget.

Syntax to create this widget: w = Entry(master: name of parent window, option, ...)

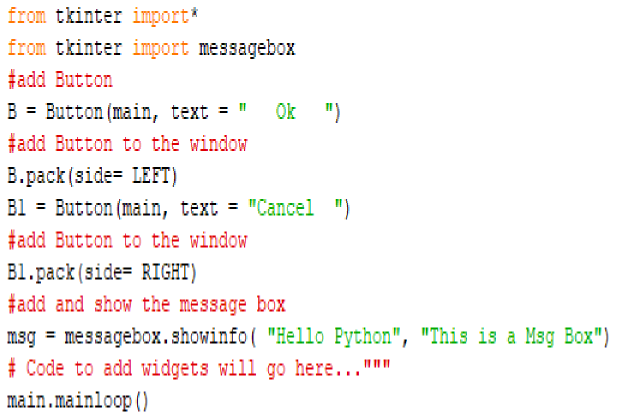


```
from tkinter import*
#constractor to instantiate and create the interface
main = Tk()
#add a title to the interface
main.title("Hire now")
#add label on top
L1 = Label(main, text = "User Name")
#label will be showed at the left
L1.pack( side = LEFT)
#The size of the border around the indicator Default is 2 pixels
E1 = Entry(main, bd = 5)
#label will be showed at the left
E1.pack(side = RIGHT)
# Code to add widgets will go here...
main.mainloop()
```

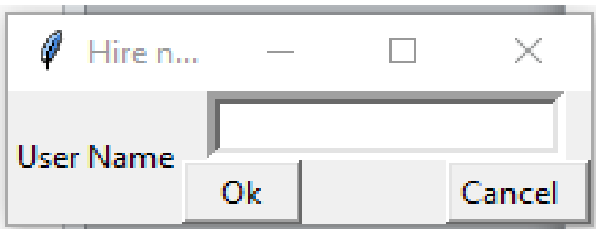


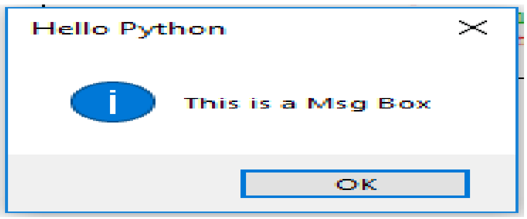
User Name Admin

2. Add a button and message box:



```
from tkinter import*
from tkinter import messagebox
#add Button
B = Button(main, text = "   Ok   ")
#add Button to the window
B.pack(side= LEFT)
B1 = Button(main, text = "Cancel  ")
#add Button to the window
B1.pack(side= RIGHT)
#add and show the message box
msg = messagebox.showinfo( "Hello Python", "This is a Msg Box")
# Code to add widgets will go here..."""
main.mainloop()
```





Hello Python

This is a Msg Box

The table below describe some options:

Option	Description
Show	Show characters that the user types appear in the entry. For password. entry, set show = "*".
selectforeground	foreground (text) color of selected text.
selectbackground	background color to use displaying selected text
Justify	controls how the text (many lines) is justified: CENTER, LEFT, or RIGHT.
bg	background color displayed behind the label and indicator.
bd	size of the border around the indicator. Default is 2 pixels.
command	A procedure to be called every time the user changes the state of this checkbutton.
fg	The color used to render the text.
font	The font used for the text.