DESKTOP NOTIFIER

END-TERM REPORT

BACHELOR OF TECHNOLOGY

in

COMPUTER SCIENCE AND ENGINEERING

By:

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Objective

The primary objective of this project is to implement the python programming by using the library psutil .The concept of this project is set a remainder to the user on how much space is used and how much space is remaining in the ram we will let the user to fix a value of space in ram and when the ram reaches to the value the user will get a remainder notification so that he can change the value or he will stop some of the programms to free up space in the ram

This project will help the user to know his storage in ram as he gets notification and he will stop some unwanted programmes running in the background so it let the system to work more efficiently.

Below is the description of module that we have used

PSUTIL

Python system and process utilities is a cross platform library for retrieving information on running process and system utilization (cpu, memory, disks,network, sensors) in python.it is useful mainly for system monitoring, profiling,limiting process resources and the management of running process.

TKINTER

Python offers multiple options for developing GUI (Graphical User Interface). Out of all the gui methods, tkinter is the most commonly used method.It is a standard Python interface to the tk Gui toolkit slipped with

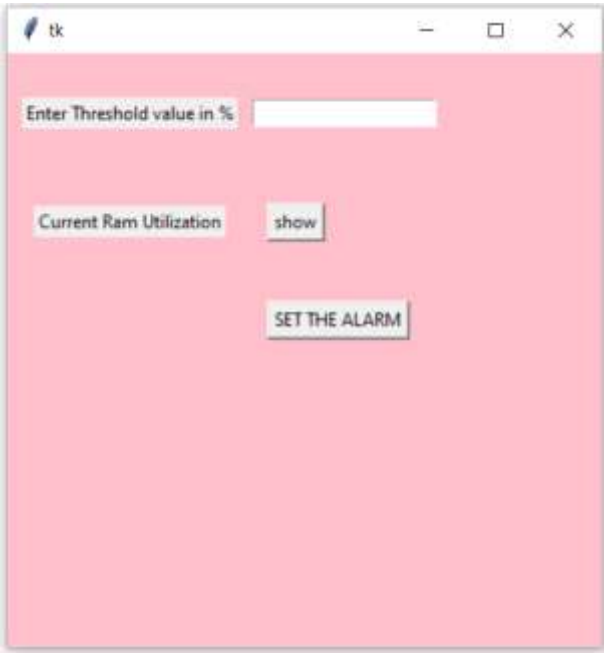
python Python with tkinter is the Fastest and easiest way to create GUI applications.

PLYER

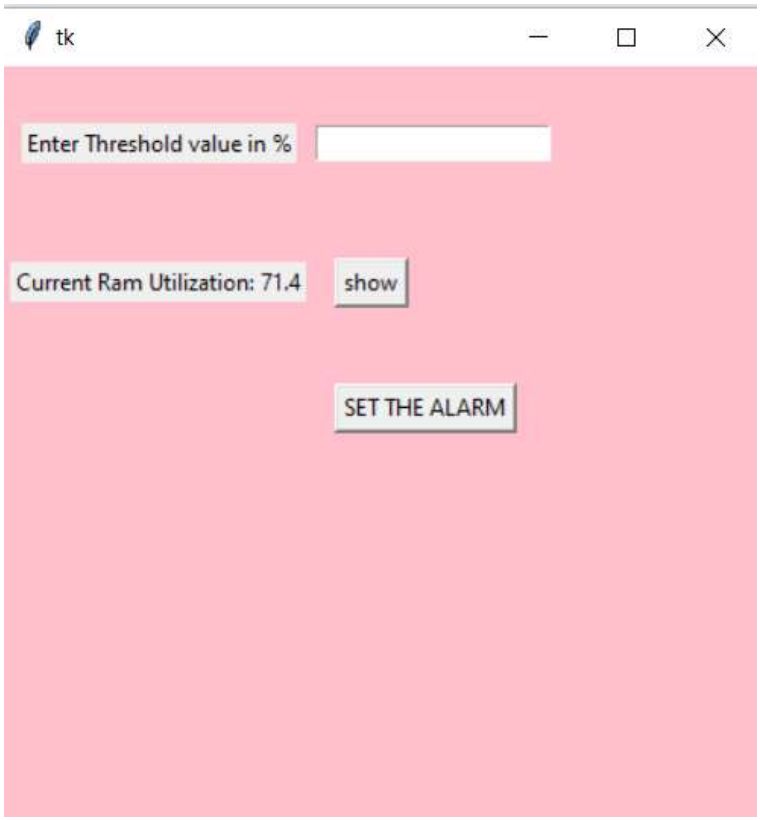
This module is used to access the feature of the hardware This module Does not comes built in with python we need to install it.

Desktop Notifier Screenshots:

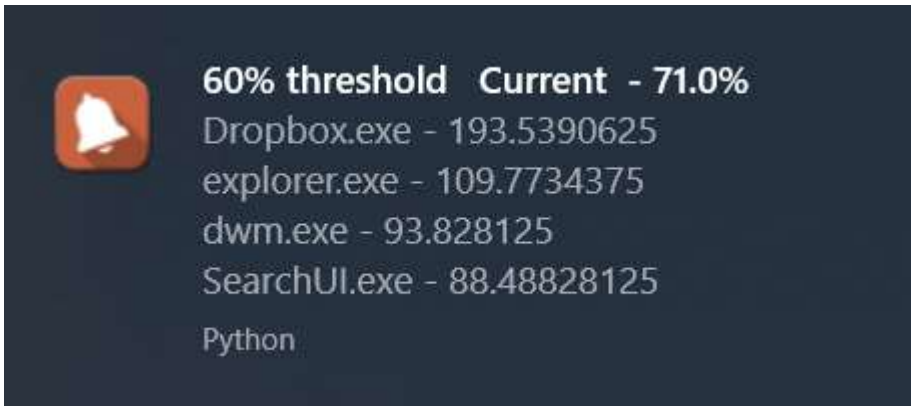
1.WELCOME SCREEN:



2.CURRENT RAM UTILIZATION (*with input values*)



3. NOTIFIER



SourceCode

```
import psutil
def getListOfProcessSortedByMemory():
    '''
```

```
    Get list of running process sorted by Memory Usage
    '''
    listOfProcObjects = []
    # Iterate over the list
    for proc in psutil.process_iter():
      try:
          # Fetch process details as dict
          pinfo = proc.as_dict(attrs=['pid', 'name', 'username'])
          pinfo['vms'] = proc.memory_info().vms / (1024 * 1024)
          # Append dict to list
          listOfProcObjects.append(pinfo);
      except (psutil.NoSuchProcess, psutil.AccessDenied, psutil.ZombieProcess):
          pass
    # Sort list of dict by key vms i.e. memory usage
    listOfProcObjects = sorted(listOfProcObjects, key=lambda procObj: procObj['vms'],
  reverse=True)
    return listOfProcObjects


#psutil.virtual_memory().percent


threshold=0
import tkinter as tk
def qui():
    my_label1.config(text = "Current Ram Utilization: "+str(psutil.virtual_memory().percent))

def show_entry_fields():
    global threshold
    threshold=int(e1.get())
    global master
    master.destroy()


master = tk.Tk()
master.geometry("400x400")
master.configure(bg='pink')


my_label=tk.Label(master,
        text="Enter Threshold value in %")
my_label.grid(row=4,padx=10, pady=30)
```

```
my_label1=tk.Label(master,
        text="Current Ram Utilization")
my_label1.grid(row=5)


e1 = tk.Entry(master)


e1.grid(row=4, column=1)

tk.Button(master,
         text='show',
         command=qui).grid(row=5,
                           column=1,
                           sticky=tk.W,
                           pady=20,padx=10)
tk.Button(master,
         text='SET THE ALARM', command=show_entry_fields).grid(row=7,
                                        column=1,

                                        sticky=tk.W,
                                        pady=20,padx=10)

tk.mainloop()


from plyer.utils import platform
from plyer import notification



not_times=0
import time
while True:
    if(psutil.virtual_memory().percent>threshold):
        fresh=1
        ss=""
        listOfRunningProcess = getListOfProcessSortedByMemory()
        for elem in listOfRunningProcess[:5] :
            print(elem)
            ss=ss+str(elem['name'])+" - "+str(elem['vms'])+"\n"
        if(not_times<5):
```

```
        notification.notify(
            title=str(threshold)+"% threshold   Current  - "+
str(psutil.virtual_memory().percent)+"%\n",
            message=ss,
            app_name='Here is the application name\nhjgsgs',
            app_icon='computer.ico',
        )
        not_times=not_times+1
    time.sleep(10)


 else:
    not_times=0
```

Results

We finally got the end product as a ‘desktop notifier’ that includes all the mentioned modules. We learnt how to make a GUI using Tkinter in Python.

References

- https://www.python-course.eu/index.php
- www.blog.pythonlibrary.org
- http://effbot.org/tkinterbook/
- https://www.w3schools.com/python/
- https://www.geeksforgeeks.org/sql-using-python/
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- www.quora.com