

Visiting Card Scanner GUI Application using Python

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# Visiting Card scanner GUI

# imported tkinter library
from tkinter import *
import tkinter.messagebox as tmsg

# Pillow library for importing images
from PIL import Image, ImageTk

# library for filedialog (For file selection)
from tkinter import filedialog

# Pytesseract module importing
import pytesseract
import os.path

root = Tk()

# fixing geometry of GUI
root.geometry('800x500')
root.maxsize(1000, 500)
root.minsize(600, 500)
root.title('Visiting card scanner')

# function for uploading file to GUI
def upload_file():
    global filename
    global start, last
    filename = filedialog.askopenfilename(
        initialdir='/Desktop', title = 'Select a card image',
        filetypes=(('jpeg files', '*.jpg'), ('png files', '*.png')))

    if filename == '':
        t.delete(1.0, END)
        t.insert(1.0, 'You have not provided any image to convert')
        tmsg.showwarning(
            title = 'Alert!', message = 'Please provide proper formatted image')
        return

    else:
        p_label_var.set('Image uploaded successfully')
        l.config(fg='#0CDD19')

    if filename.endswith('.JPG') or filename.endswith('.JPEG') or filename.endswith('.jpg') or filename.endswith('.jpeg') or filename.endswith(
        filename_rev = filename[::-1]
        last = filename.index('.')
        start = len(filename) - filename_rev.index('/') - 1

# function for conversion
def convert():
    try:
        c_label_var.set('Output...')
        pytesseract.pytesseract.tesseract_cmd = r'C:\Program Files (x86)\Tesseract-OCR\tesseract'
        text = pytesseract.image_to_string(filename)
        t.delete(1.0, END)
        t.insert(1.0, text)
        root1 = Toplevel()
        root1.title('Uploaded image')
        img1 = ImageTk.PhotoImage(Image.open(filename))
        Label(root1, image=img1).pack()
        root1.mainloop()
    except:
        t.delete(1.0, END)
        t.insert(1.0, 'You have not provided any image to convert')
        tmsg.showwarning(
            title='Alert!', message='Please provide proper formatted image')
        return
    f_name = filename[start+1:last]+'.txt'
    f_name = os.path.join(r'Database', f_name)
    f = open(f_name, 'w')
    f.write(text)
    f.close()

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# Menu bar and navigation tab creation
mainmenu = Menu(root)
mainmenu.config(font = ('Times', 29))

m1 = Menu(mainmenu, tearoff = 0)
m1.add_command(label = 'Scan/Upload Visiting or Business cards and get all the text of cards',
               font = ('Times', 13))
root.config(menu = mainmenu)
mainmenu.add_cascade(label = 'Aim', menu = m1)

m2 = Menu(mainmenu, tearoff = 0)
m2.add_command(label = '|| Electronics and Communication engineering student ||',
               font = ('Times', 13))
m2.add_command(label = '|| Coding Enthusiast ||', font = ('Times', 13))
root.config(menu = mainmenu)
mainmenu.add_cascade(label = 'About us', menu = m2)

m3 = Menu(mainmenu, tearoff=0)
m3.add_command(label = 'E-mail: mathurkartik1234@gmail.com',
               font = ('Times', 13))
m3.add_separator()
m3.add_command(label = 'Mobile: +91-9587823004', font=('Times', 13))
m3.add_separator()
m3.add_command(label = 'LinkedIn: https://www.linkedin.com/in/kartik-mathur-97a825160',
               font = ('Times', 13))
root.config(menu = mainmenu)
mainmenu.add_cascade(label = 'Contact us', menu = m3)

Label(text = 'Visiting card scanner', bg = '#FAD2B8',
      fg = '#39322D', font = ('Times', 18)).pack(fill = 'x')
Label(text = 'Python GUI', bg = '#FAD2B8', fg = '#39322D', font=(
    'Times New Roman', 12, 'italic')).pack(fill='x')

f1 = Frame()
f1.config(bg='white')
Label(f1, text='Browse photo to upload', width=20,
      font=('Times', 15), bg='white').pack(side='left')
Label(f1, text='format: png/jpeg', bg='white',
      width=30).pack(side='right', padx=5)
Button(f1, text='Upload card', bg='#F58D4B', font=('Times', 15),
       width=70, command=upload_file).pack(side='right')
f1.pack(pady=10, fill='x')
p_label_var = StringVar()
p_label_var.set('Please upload an image to scan')
l = Label(textvariable=p_label_var, fg='red', bg='white')
l.pack()

Label(text='©copyright 2020', bg='#433E3B', fg='white',
      font=('Times', 10)).pack(side='bottom', fill='x')
Label(text='Developer: Kartik Mathur', bg='#433E3B', fg='white',
      font=('Times', 10, 'italic')).pack(side='bottom', fill='x')
t = Text(root, height='9', font=('Times', 13))
t.pack(side='bottom', fill='x')
t.insert(1.0, 'Text of converted card will be shown here...', END)
c_label_var = StringVar()
c_label_var.set('Ready for conversion')
c_label = Label(textvariable=c_label_var)
c_label.pack(side='bottom', anchor='w')
Button(root, text='Scan and Convert', bg='#F58D4B', font=('Times', 15),
       width=70, command=convert).pack(pady='10', side='bottom')
root.mainloop()

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