p10_2347126

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P10: Apply regular expressions for form validation(TkInter). 1. Create a form using the following widgets for your domain. Label, Entry, Button, RadioButton, OptionMenu, Checkbutton, message box 2. Apply regular expression to validate the input of all widgets. Reuse your code from P6: Implement 're' module 3. Make a simple calculation related to your domain. E.g. Age from DOB, Amount to be paid, Year of experience from date of joining, etc. 4. Display all widget inputs that are received from the user.

[ ]:
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import re
from tkinter import *
from tkinter import font
from tkinter import messagebox
reg=Tk()
reg.title="New Employee Details Form"
reg.geometry('800x700')

heading1=Label(reg,text="New Employee Details",foreground="black",font=font.
 ↪Font(size=32))
heading1.place(x=200,y=20)
heading2=Label(reg,text="Please fill out your information below.
 ↪",foreground="grey",font=font.Font(size=14))
heading2.place(x=250,y=70)

sub1=Label(reg,text="Personal Info",foreground="black",font=("arial",18))
sub1.place(x=20,y=110)

fnamelb=Label(reg,text="First Name:",foreground="black",font=("arial",12))
fnamelb.place(x=20,y=160)
firstname=StringVar()
fnameen=Entry(reg,textvariable=firstname)
fnameen.place(x=150,y=165)

lnamelb=Label(reg,text="Last Name:",foreground="black",font=("arial",12))
lnamelb.place(x=20,y=200)
lastname=StringVar()
lnameen=Entry(reg,textvariable=lastname)
lnameen.place(x=150,y=205)
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genderlb=Label(reg,text="Select␣
 ↪Gender",foreground="black",width=12,font=("arial",12))
genderlb.place(x=400,y=160)
gender=StringVar()
gender.set("MALE")
Radiobutton(reg, text="Male",padx=5,variable=gender,value="MALE").
 ↪place(x=400,y=180)
Radiobutton(reg, text="Female",padx=5,variable=gender,value="FEMALE").
 ↪place(x=500,y=180)
Radiobutton(reg, text="Other",padx=5,variable=gender,value="OTHERS").
 ↪place(x=600,y=180)


DOBlb=Label(reg,text="Birth Date",foreground="black",font=("arial",12))
DOBlb.place(x=20,y=240)
list_of_dates=(1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,3
date=StringVar()
datelist=OptionMenu(reg,date,*list_of_dates)
datelist.config(width=15)
date.set("Date")
datelist.place(x=20,y=270)

list_of_months=('January', 'February', 'March', 'April', 'May', 'June', 'July',␣
 ↪'August', 'September', 'October', 'November', 'December')
month=StringVar()
monthlist=OptionMenu(reg,month,*list_of_months)
monthlist.config(width=15)
month.set('Month')
monthlist.place(x=170,y=270)

yearset=[]
for i in range(1990,2023,1):
    yearset.append(i)
years=set(yearset)
year=StringVar()
yearlist=OptionMenu(reg,year,*years)
yearlist.config(width=15)
year.set("Year")
yearlist.place(x=320,y=270)

Addresslb=Label(reg,text="Address",foreground="black",font=("arial",12))
Addresslb.place(x=20,y=310)
add1=StringVar()
address1en=Entry(reg,textvariable=add1, width=100)
address1en.place(x=20,y=340)
add1sub=Label(reg,text="Street Address",foreground="grey",font=("arial",8))
add1sub.place(x=20,y=360)
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add2=StringVar()
address2en=Entry(reg,textvariable=add2, width=100)
address2en.place(x=20,y=380)
add2sub=Label(reg,text="Street Address Line␣
 ↪2",foreground="grey",font=("arial",8))
add2sub.place(x=20,y=400)

city=StringVar()
cityen=Entry(reg,textvariable=city, width=30)
cityen.place(x=20,y=420)
citysub=Label(reg,text="City",foreground="grey",font=("arial",8))
citysub.place(x=20,y=440)

state=StringVar()
stateen=Entry(reg,textvariable=state, width=30)
stateen.place(x=300,y=420)
statesub=Label(reg,text="State",foreground="grey",font=("arial",8))
statesub.place(x=300,y=440)


phnlb=Label(reg,text="Phone Number",foreground="black",font=("arial",12))
phnlb.place(x=20,y=480)
num=StringVar()
phnen=Entry(reg,textvariable=num,width=40)
phnen.place(x=20,y=510)

emaillb=Label(reg,text="Email",foreground="black",font=("arial",12))
emaillb.place(x=300,y=480)
email=StringVar()
emailen=Entry(reg,textvariable=email, width=40)
emailen.place(x=300,y=510)

positionlb=Label(reg,text="Position Title:␣
 ↪",foreground="black",font=("arial",12))
positionlb.place(x=20,y=550)
position=StringVar()
posen=Entry(reg,textvariable=position,width=40)
posen.place(x=150,y=550)

agree=IntVar()
agreechk=Checkbutton(reg,text="Agree to the Terms & Conditions",␣
 ↪variable=agree).place(x=20,y=590)

def submission():
    fname=firstname.get()
    lname=lastname.get()
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    gen=gender.get()
    dob_date=date.get()
    dob_month=month.get()
    dob_year=year.get()
    mail=email.get()
    pos=position.get()
    phn=num.get()
    st=state.get()
    ct=city.get()
    ad1=add1.get()
    ad2=add2.get()
    ag=agree.get()

    if(not ag):
        messagebox.showwarning("Warning", "Please Agree to Terms & Conditions")
        return False

    if ( fname=='' or lname=='' or gen=='' or dob_date=='' or dob_month=='' or␣
 ↪dob_year=='' or mail=='' or pos=='' or phn=='' or pos=='' or st=='' or␣
 ↪ct=='' or ad1=='' or ad2=='' ):
        messagebox.showerror("Error", "Fill all the entries")
        return False

    name_regex = "/^[a-z A-Z,.'-]+$/i"
    if not (firstname.matches(name_regex)):
        messagebox.showerror("Error", "Invalid First Name")
        return False

    if not (lastname.matches(name_regex)):
        messagebox.showerror("Error", "Invalid last Name")
        return False

    phoneno = "/^\d{10}$/"
    if not (phn.matches(phoneno)):
        messagebox.showerror("Error", "Invalid Mobile")
        return False

    messagebox.showinfo("showinfo", "Details Submitted successfully")
    return 1

submit=Button(reg,text="Submit",width=10,command=submission).place(x=300,y=630)


reg.mainloop()
```