

Project : Diabetes Diagnosis Application

Code:

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from tkinter import *
def predict():
    res = "Patient's Name:" + str(var.get())
    r1.config(text=res)
    res1 = "Plasma glucose concentration:" + str(var1.get())
    r2.config(text=res1)
    res2 = "Diastolic blood pressure:" + str(var2.get())
    r3.config(text=res2)
    res3 = "Triceps skin fold thickness:" + str(var3.get())
    r4.config(text=res3)
    res4 = "Serum Insulin:" + str(var4.get())
    r5.config(text=res4)
    res5 = "Body Mass Index:" + str(var5.get())
    r6.config(text=res5)
    if int(var1.get()) >= 70 and int(var1.get()) <= 180:
        if int(var2.get()) >= 80 and int(var2.get()) <= 140:
            if int(var3.get()) >= 10 and int(var3.get()) <= 50:
                if int(var4.get()) >= 15 and int(var4.get()) <= 276:
                    if int(var5.get()) >= 10 and int(var5.get()) <= 50:
                        diag = "Diagnosis suggests that patient does not suffers from diabetes"
                        d.config(text=diag)
                    else:
                        diag = "Diagnosis suggests that patient does suffers from diabetes but need to take care about his BMI"
                        d.config(text=diag)
                else:
                    diag = "Diagnosis suggests that patient does suffers from diabetes but need to take care about his serum insulin"
                    d.config(text=diag)
            else:
                diag = "Diagnosis suggests that patient does suffers from diabetes and needs to take care of his skin fold thickness"
                d.config(text=diag)
        else:
            diag = "Diagnosis suggests that patient does suffers from diabetes and needs to take care of his blood pressure"
            d.config(text=diag)
    else:
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diag="Diagnosis suggests that patient does suffer from diabetes and needs to
take care of his glucose concentration"
d.config(text=diag)
def erase():
e1.delete(0,END)
e2.delete(0,END)
e3.delete(0,END)
e4.delete(0,END)
e5.delete(0,END)
e6.delete(0,END)
r1.destroy()
r2.destroy()
r3.destroy()
r4.destroy()
r5.destroy()
r6.destroy()
d.destroy()
root=Tk()
root.title("Diabetes Prediction Application")
label=Label(root,text="Patient's Details",font=({"Bold",30}))
label.grid(row=0,column=0)
label1=Label(root,text="Report Card",font=({"Bold",30}))
label1.grid(row=0,column=30)
l1=Label(root,text="Patient's Name:")
l1.grid(row=2,column=0)
var=StringVar()
e1=Entry(root,bd=5,textvariable=var)
e1.grid(row=2,column=1)
l2=Label(root,text="Plasma glucose concentration:")
l2.grid(row=3,column=0)
var1=IntVar()
e2=Entry(root,bd=5,textvariable=var1)
e2.grid(row=3,column=1)
l11=Label(root,text="(70-180 mg/dl)")
l11.grid(row=3,column=2)
l3=Label(root,text="Diastolic blood pressure:")
l3.grid(row=4,column=0)
var2=IntVar()
e3=Entry(root,bd=5,textvariable=var2)
e3.grid(row=4,column=1)
l12=Label(root,text="(80-140mm Hg)")
l12.grid(row=4,column=2)
l4=Label(root,text="Triceps skin fold thickness:")
l4.grid(row=5,column=0)
var3=IntVar()
e4=Entry(root,bd=5,textvariable=var3)
e4.grid(row=5,column=1)
l13=Label(root,text="(10-50mm)")
l13.grid(row=5,column=2)

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l5=Label(root,text="Serum insulin:")
l5.grid(row=6,column=0)
var4=IntVar()
e5=Entry(root,bd=5,textvariable=var4)
e5.grid(row=6,column=1)
l14=Label(root,text="(15-276mu U/ml)")
l14.grid(row=6,column=2)
l6=Label(root,text="Body Mass Index:")
l6.grid(row=7,column=0)
var5=IntVar()
e6=Entry(root,bd=6,textvariable=var5)
e6.grid(row=7,column=1)
l15=Label(root,text="(10-50)")
l15.grid(row=7,column=2)
b1=Button(root,text="SUBMIT",command=predict)
b1.grid(row=10,column=0,columnspan=2)
b2=Button(root,text="RESET",command=erase)
b2.grid(row=10,column=1,columnspan=2)
r1=Label(root)
r1.grid(row=2,column=30)
r2=Label(root)
r2.grid(row=3,column=30)
r3=Label(root)
r3.grid(row=4,column=30)
r4=Label(root)
r4.grid(row=5,column=30)
r5=Label(root)
r5.grid(row=6,column=30)
r6=Label(root)
r6.grid(row=7,column=30)
d=Label(root)
d.grid(row=8,column=30)
text=Text(root,height=5,width=50)
note="Disclaimer: We have used PIMA Indians Diabetes dataset and we are not
claiming that the said diagnosis are 100% correct "
text.insert(END,note)
text.grid(row=9,column=30)
root.mainloop()

```

Output:

Patient's Details

Patient's Name:

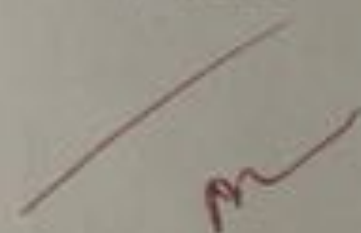
Plasma glucose concentration: (70-180 mg/dl)

Diastolic blood pressure: (80-140mm Hg)

Triceps skin fold thickness: (10-50mm)

Serum insulin: (15-276mu U/ml)

Body Mass Index: (10-50)



Report Card

Patient's Name: Suyesh Chavan

Plasma glucose concentration: 70

Diastolic blood pressure: 80

Triceps skin fold thickness: 10

Serum insulin: 45

Body Mass Index: 10

Diagnosis suggests that patient does not suffers from diabetes

Disclaimer: We have used PIMA Indians Diabetes dataset and we are not claiming that the said diagnosis are 100% correct

SUBMIT

RESET