CONTACT MANAGEMENT SYSTEM

END-TERM REPORT

BACHELOR OF TECHNOLOGY

in

COMPUTER SCIENCE AND ENGINEERING

By:

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Student Declaration

This is to declare that this report has been written by me. No part of the

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TABLE OF CONTENTS

TITLE	PAGENO	
Background and objectives of projectives	ct assigned	5
Introduction of Project	•••••	6
Module Description	•••••	7
Screenshots	•••••	8
Source Code	••••••	14
Results	•••••	24

BONAFIDE CERTIFICATE

Certified that this project report "Contact Management System" is the bonafide work of "AKHIL NEELAM" who carried out the project work under my supervision.

<< Signature of the Supervisor>>(Due to Covid 19, signature is exempted)

<<Name of supervisor>>

<<Academic Designation>>

<<ID of Supervisor>>

<<Department of Supervisor>>

Objective

The primary objective of this project is to implement what we've learnt throughout our course of Python programming and use that to develop a Graphical User Interface (GUI) for Contact management system with all the required functionalities. This project also aims at Business Process automation by providing a user friendly interface to the users to let them easily use the contact book . Through this project we aim to target the easy to understand by the user and operator and good user interface.

This is a simple GUI based mission that's very clean to apprehend and use. Talking about the device, it includes all the required features which encompass including, viewing ,deleting and updating contact lists. While including the contact of a person, he/she has to provide first name, closing name, gender, deal with and call info. The user can automatically update the touch list if he/she wishes to . For this, the person has to double click on the a file that he/she wishes to edit. There's an external database connection file used in this mini project to save user's data permanently.

Introduction

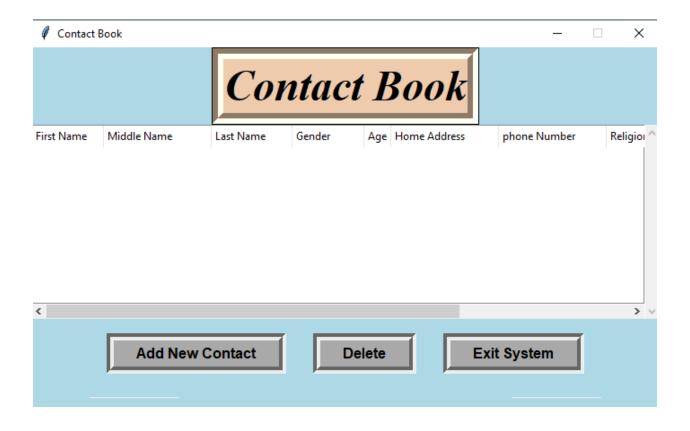
The "contact Management System" has been developed to override the problems prevailing in the practice manual system. This software is supposed to eliminate and in some cases reduce the hardships faced by this existing system. Moreover this system is designed for the particular need of the company to carry out operations in a smooth and effective manner

The application is reduced as much as possible to avoid errors while entering the data. It also provides error message while entering invalid data. No formal knowledge is needed for the user to use this system. Thus by this all it proves it is user friendly .contact management system, as described above, can assist the user to concentrate on their other activities rather to concentrate on the record keeping. Thus it will help organization in better utilization of resources.

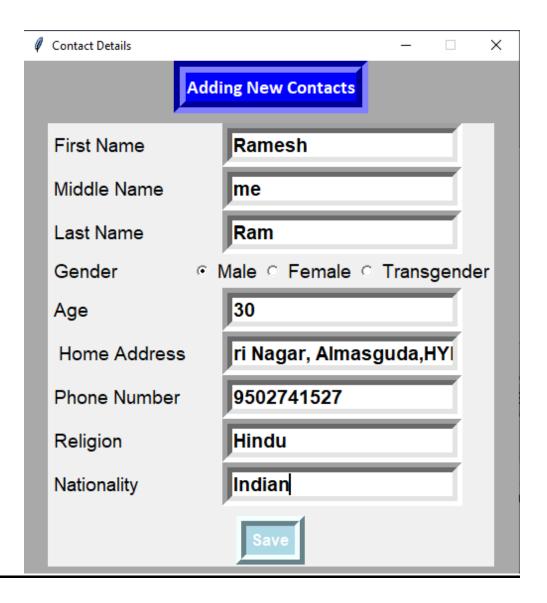
Every organization ,whether big or small , has challenges to overcome and managing the information of contact , profile, Mobile ,Emails etc. Every contact management system has different contact needs, therefore we design exclusive employee management systems that are adapted to your managerial requirements .These systems will ultimately allow you to better manage resources .

GUI Screenshots:

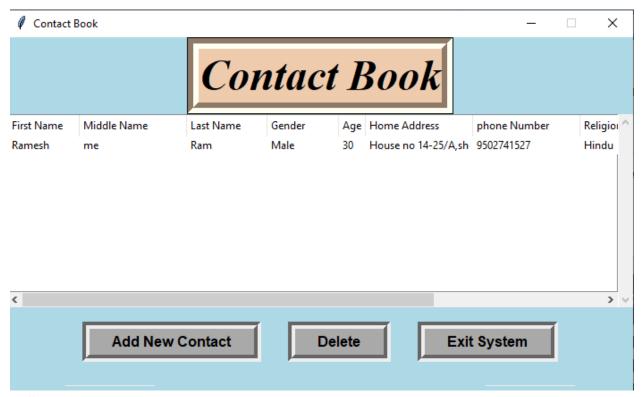
1.WELCOME SCREEN:



2.Add New Contact (with input values)



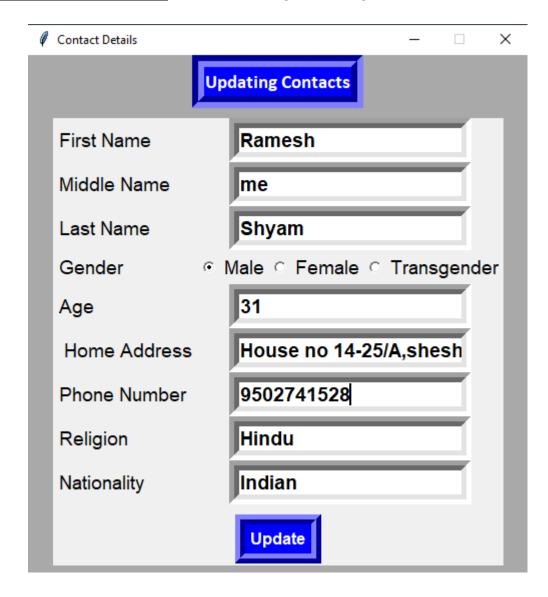
3. Save of the Contact (with input values)



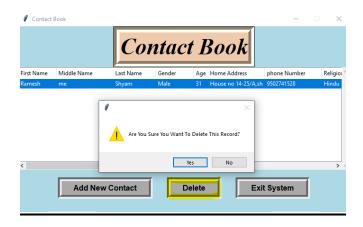
4. Save in the database:



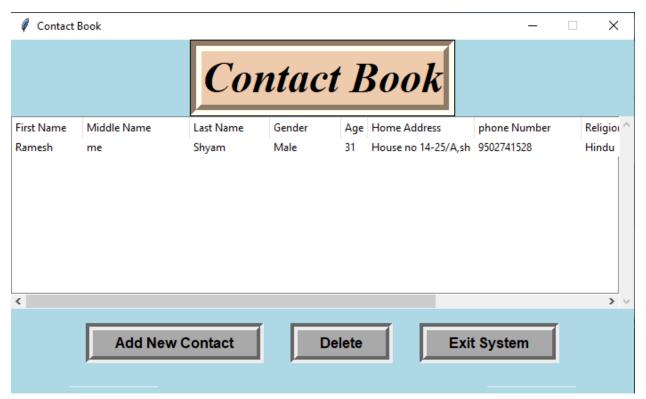
<u>**5.** Updating or Edit the Contact</u> (on double clicking the existing conatct)



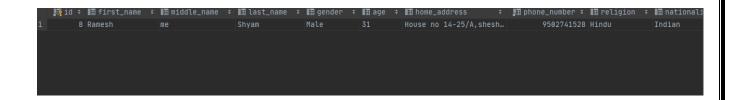
<u>Delete the existing contact:</u> (on clicking the contact which want to delete click yes to delete the contact)



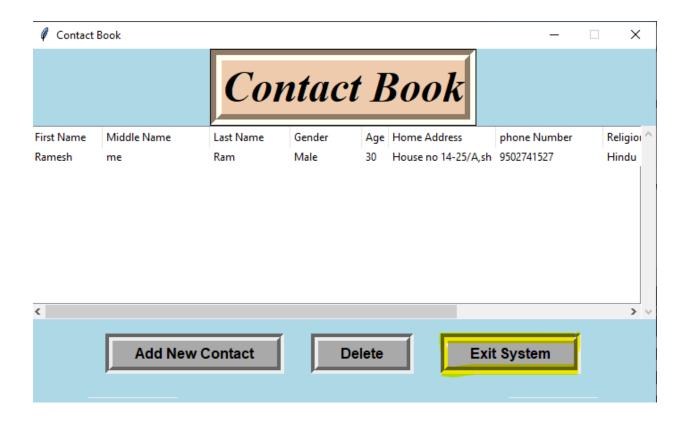
<u>6. Updated contact Details</u> (Here Last name, Phone number, age is updated)



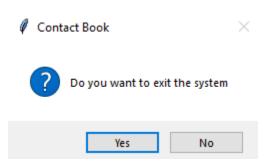
7. View in the Database(After Update or edit_the contact)



8. Exit System (on clicking Exit system)



(Click Yes to exit from the system)



Source Code

```
from tkinter import *
3 import sqlite3
4 import tkinter
5 import tkinter.ttk as ttk
6 import tkinter.messagebox as tkMessageBox
7
8
9 root = Tk()
10 root.title("Contact Book")
11 root.geometry("700x400+0+0")
12 root.resizable(0, 0)
13 root.config(bg="light blue")
14
15 # VARIABLES
16 f name = StringVar()
17 m_name = StringVar()
18 l name = StringVar()
19 age = StringVar()
20 home_address = StringVar()
21 phone_number = StringVar()
22 gender = StringVar()
23 religion = StringVar()
24 nationality = StringVar()
25
26 # METHODS
27 def Exit():
28
      wayOut = tkinter.messagebox.askyesno("Contact Book", "Do you want to exit the
system")
29
     if wayOut > 0:
30
        root.destroy()
31
        return
32
33 def Reset():
34
     f name.set("")
35
      m_name.set("")
36
      l_name.set("")
      gender.set("")
37
38
      age.set("")
      home address.set("")
39
      phone_number.set(""")
40
41
      religion.set("")
42
      nationality.set("")
43
44 def Database():
      conn = sqlite3.connect("contactdb.db")
45
```

```
46
      cursor = conn.cursor()
47
      cursor.execute(
48
        "CREATE TABLE IF NOT EXISTS `contactable` (id INTEGER NOT NULL
PRIMARY KEY AUTOINCREMENT, first name TEXT, middle name TEXT, last name
TEXT, gender TEXT, age TEXT, home_address TEXT, phone_number TEXT, religion
TEXT, nationality TEXT)")
49
      cursor.execute("SELECT * FROM `contactable` ORDER BY `last_name` ASC")
50
      fetch = cursor.fetchall()
51
      for data in fetch:
52
        tree.insert(", 'end', values=(data))
53
      cursor.close()
54
      conn.close()
55
56
57 def Submit():
      if f name.get() == "" or m name.get() == "" or l name.get() == "" or gender.get()
58
== "" or age.get() == "" or home_address.get() == "" or phone_number.get() == "" or
religion.get() == "" or nationality.get() == "" or phone_number.get() == str:
        result = tkMessageBox.showwarning('', 'Please Complete The Required Field',
icon="warning")
60
      else:
61
        tree.delete(*tree.get children())
62
        conn = sqlite3.connect("contactdb.db")
63
        cursor = conn.cursor()
64
        cursor.execute(
65
           "INSERT INTO `contactable` (first name, middle name, last name, gender,
age, home_address, phone_number, religion, nationality) VALUES(?, ?, ?, ?, ?, ?, ?, ?, ?)",
(str(f name.get()), str(m name.get()), str(l name.get()), str(gender.get()), int(age.get()),
str(home_address.get()),
66
          int(phone number.get()), str(religion.get()), str(nationality.get())))
67
        conn.commit()
        cursor.execute("SELECT * FROM `contactable` ORDER BY `last_name` ASC")
68
69
        fetch = cursor.fetchall()
70
        for data in fetch:
71
          tree.insert(", 'end', values=(data))
72
        cursor.close()
73
        conn.close()
74
        f name.set("")
75
        m name.set("")
76
        l name.set("")
77
        gender.set("")
78
        age.set("")
79
        home address.set("")
        phone number.set("")
80
81
        religion.set("")
        nationality.set("")
82
83
84
85 def Update():
```

```
86
      if gender.get() == "" or phone_number.get() == str:
87
        result = tkMessageBox.showwarning('', 'Please Complete The Required Field ',
icon="warning")
88
      else:
89
        tree.delete(*tree.get_children())
        conn = sqlite3.connect("contactdb.db")
90
        cursor = conn.cursor()
91
92
        cursor.execute(
93
           "UPDATE `contactable` SET `first name` = ?, `middle name` = ?, `last name`
= ?, `gender` =?, `age` = ?, `home_address` = ?, `phone_number` = ?, `religion` = ?,
`nationality` = ? WHERE `id` = ?",
          (str(f_name.get()), str(m_name.get()), str(l_name.get()), str(gender.get()),
int(age.get()), str(home_address.get()),
95
          int(phone_number.get()), str(religion.get()), str(nationality.get()), int(id)))
96
        conn.commit()
97
        cursor.execute("SELECT * FROM `contactable` ORDER BY `last name` ASC")
98
        fetch = cursor.fetchall()
99
        for data in fetch:
           tree.insert(", 'end', values=(data))
100
101
         cursor.close()
         conn.close()
102
         f_name.set("")
103
         m_name.set("")
104
         l name.set("")
105
         gender.set("")
106
107
         age.set("")
         home_address.set(""")
108
         phone number.set("")
109
         religion.set("")
110
         nationality.set("")
111
112
113 def UpdateContactWindow(event):
114
      global id, UpdateWindow
115
      curItem = tree.focus()
116
      contents = (tree.item(curItem))
117
      selecteditem = contents['values']
118
      id = selecteditem[0]
      f name.set("")
119
120
      m name.set("")
121
      l name.set("")
122
      gender.set("")
123
      age.set("")
124
      home address.set("")
      phone number.set("")
125
126
      religion.set("")
      nationality.set("")
127
128
129
      f name.set(selecteditem[1])
130
      m name.set(selecteditem[2])
```

```
131
      1 name.set(selecteditem[3])
132
133
      age.set(selecteditem[5])
134
      home address.set(selecteditem[6])
135
      phone number.set(selecteditem[7])
136
      religion.set(selecteditem[8])
137
      nationality.set(selecteditem[9])
138
139
      UpdateWindow = Toplevel()
      UpdateWindow.title("Contact Details")
140
141
      UpdateWindow.geometry("500x520+0+0")
142
      UpdateWindow.config(bg="dark gray")
      UpdateWindow.resizable(0, 0)
143
144
      if 'NewWindow' in globals():
145
        NewWindow.destroy()
146
147
      # FRAMES
148
      FormTitle = Frame(UpdateWindow)
149
      FormTitle.pack(side=TOP)
150
      ContactForm = Frame(UpdateWindow)
151
      ContactForm.pack(side=TOP, pady=10)
152
      RadioGroup = Frame(ContactForm)
153
      Male = Radiobutton(RadioGroup, text="Male", variable=gender, value="Male",
font=('arial', 14)).pack(side=LEFT)
      Female = Radiobutton(RadioGroup, text="Female", variable=gender,
154
value="Female", font=('arial', 14)).pack(side=LEFT)
      Transgender = Radiobutton(RadioGroup, text="Transgender", variable=gender,
155
value="Transgender", font=('arial', 14)).pack(side=LEFT)
156
      # LABELS
157
      lbl title = Label(FormTitle, text="Updating Contacts", bd=12, relief=GROOVE,
fg="White", bg="blue",
                font=("Calibri", 14, "bold"), pady=3)
158
159
      lbl title.pack(fill=X)
160
      lbl FirstName = Label(ContactForm, text="First Name", font=('arial', 14), bd=5)
161
      lbl_FirstName.grid(row=0, sticky=W)
162
163
      lbl_MiddleName = Label(ContactForm, text="Middle Name", font=('arial', 14),
bd=5)
164
      lbl MiddleName.grid(row=1, sticky=W)
165
166
      lbl LastName = Label(ContactForm, text="Last Name", font=('arial', 14), bd=5)
167
      lbl LastName.grid(row=2, sticky=W)
168
169
      lbl Gender = Label(ContactForm, text="Gender", font=('arial', 14), bd=5)
170
      lbl_Gender.grid(row=3, sticky=W)
171
172
      lbl_Age = Label(ContactForm, text="Age", font=('arial', 14), bd=5)
173
      lbl Age.grid(row=4, sticky=W)
174
```

```
lbl_HomeAddress = Label(ContactForm, text=" Home Address", font=('arial', 14),
175
bd=5)
      lbl HomeAddress.grid(row=5, stickv=W)
176
177
178
      lbl PhoneNumber = Label(ContactForm, text="Phone Number", font=('arial', 14),
bd=5)
179
      lbl PhoneNumber.grid(row=6, stickv=W)
180
181
      lbl Religion = Label(ContactForm, text="Religion", font=('arial', 14), bd=5)
182
      lbl_Religion.grid(row=7, sticky=W)
183
184
      lbl_Nationality = Label(ContactForm, text="Nationality", font=('arial', 14), bd=5)
      lbl Nationality.grid(row=8, sticky=W)
185
186
187
      # TEXT ENTRY
188
      FirstName = Entry(ContactForm, textvariable=f name, font=('arial', 14, 'bold'),
bd=10, width=20, justify='left')
      FirstName.grid(row=0, column=1)
189
190
191
      MiddleName = Entry(ContactForm, textvariable=m_name, font=('arial', 14, 'bold'),
bd=10, width=20, justify='left')
      MiddleName.grid(row=1, column=1)
192
193
194
      LastName = Entry(ContactForm, textvariable=1 name, font=('arial', 14, 'bold'),
bd=10, width=20, justify='left')
195
      LastName.grid(row=2, column=1)
196
197
      RadioGroup.grid(row=3, column=1)
198
199
      Age = Entry(ContactForm, textvariable=age, font=('arial', 14, 'bold'), bd=10,
width=20, justify='left')
      Age.grid(row=4, column=1)
200
201
202
      HomeAddress = Entry(ContactForm, textvariable=home address, font=('arial', 14,
'bold'), bd=10, width=20,
203
                 iustify='left')
204
      HomeAddress.grid(row=5, column=1)
205
206
      PhoneNumber = Entry(ContactForm, textvariable=phone number, font=('arial',
14, 'bold'), bd=10, width=20,
                 justify='left')
207
208
      PhoneNumber.grid(row=6, column=1)
209
210
      Religion = Entry(ContactForm, textvariable=religion, font=('arial', 14, 'bold'),
bd=10, width=20, justify='left')
211
      Religion.grid(row=7, column=1)
212
213
      Nationality = Entry(ContactForm, textvariable=nationality, font=('arial', 14, 'bold'),
bd=10, width=20,
```

```
214
                 justify='left')
215
      Nationality.grid(row=8, column=1)
216
      # =======BUTTONS========
217
      ButtonUpdatContact = Button(ContactForm, text='Update', bd=10, font=('arial',
12, 'bold'), relief="ridge", fg="white",
                    bg="blue", command=Update)
218
219
      ButtonUpdatContact.grid(row=9, columnspan=2, pady=10)
220
221
222
223 def Delete():
224
      if not tree.selection():
225
        result = tkMessageBox.showwarning('', 'Please Select in the Table First!',
icon="warning")
226
      else:
227
        result = tkMessageBox.askquestion(", 'Are You Sure You Want To Delete This
Record?', icon="warning")
228
        if result == 'yes':
229
          curItem = tree.focus()
230
          contents = (tree.item(curItem))
231
          selecteditem = contents['values']
232
          tree.delete(curItem)
233
          conn = sqlite3.connect("contactdb.db")
234
          cursor = conn.cursor()
235
          cursor.execute("DELETE FROM `contactable` WHERE `id` = %d" %
selecteditem[0])
236
          conn.commit()
237
          cursor.close()
238
          conn.close()
239
240
241 def AddNewContact():
242
      global NewWindow
243
      f name.set("")
244
      m_name.set("")
245
      1 name.set("")
246
      gender.set("")
247
      age.set("")
248
      home address.set("")
249
      phone number.set("")
250
      religion.set("")
251
      nationality.set("")
      NewWindow = Toplevel()
252
253
      NewWindow.title("Contact Details")
254
      NewWindow.resizable(0, 0)
255
      NewWindow.geometry("500x520+0+0")
256
      NewWindow.config(bg="dark gray")
257
      if 'UpdateWindow' in globals():
258
        UpdateWindow.destroy()
```

```
259
260
      261
     FormTitle = Frame(NewWindow)
262
      FormTitle.pack(side=TOP)
      ContactForm = Frame(NewWindow)
263
264
      ContactForm.pack(side=TOP, pady=10)
265
      RadioGroup = Frame(ContactForm)
266
      Male = Radiobutton(RadioGroup, text="Male", variable=gender, value="Male",
font=('arial', 14)).pack(side=LEFT)
      Female = Radiobutton(RadioGroup, text="Female", variable=gender,
value="Female", font=('arial', 14)).pack(side=LEFT)
268
     Transgender = Radiobutton(RadioGroup, text="Transgender", variable=gender,
value="Transgender", font=('arial', 14)).pack(side=LEFT)
269
      # =========LABELS====================
     lbl_title = Label(FormTitle, text="Adding New Contacts", bd=12,
270
relief=GROOVE, fg="White", bg="blue",
271
               font=("Calibri", 14, "bold"), pady=3)
272
     lbl_title.pack(fill=X)
273
     lbl_FirstName = Label(ContactForm, text="First Name", font=('arial', 14), bd=5)
274
     lbl_FirstName.grid(row=0, sticky=W)
275
276
     lbl_MiddleName = Label(ContactForm, text="Middle Name", font=('arial', 14),
bd=5)
277
     lbl MiddleName.grid(row=1, sticky=W)
278
279
     lbl LastName = Label(ContactForm, text="Last Name", font=('arial', 14), bd=5)
280
     lbl_LastName.grid(row=2, sticky=W)
281
     lbl_Gender = Label(ContactForm, text="Gender", font=('arial', 14), bd=5)
282
283
     lbl Gender.grid(row=3, stickv=W)
284
285
     lbl_Age = Label(ContactForm, text="Age", font=('arial', 14), bd=5)
286
     lbl Age.grid(row=4, sticky=W)
287
288
      lbl_HomeAddress = Label(ContactForm, text=" Home Address", font=('arial', 14),
bd=5)
289
     lbl_HomeAddress.grid(row=5, sticky=W)
290
291
     lbl PhoneNumber = Label(ContactForm, text="Phone Number", font=('arial', 14),
bd=5)
292
     lbl_PhoneNumber.grid(row=6, sticky=W)
293
294
     lbl_Religion = Label(ContactForm, text="Religion", font=('arial', 14), bd=5)
295
     lbl Religion.grid(row=7, sticky=W)
296
297
     lbl Nationality = Label(ContactForm, text="Nationality", font=('arial', 14), bd=5)
298
     lbl_Nationality.grid(row=8, sticky=W)
299
300
```

```
301
      FirstName = Entry(ContactForm, textvariable=f name, font=('arial', 14, 'bold'),
bd=10, width=20, justify='left')
      FirstName.grid(row=0, column=1)
302
303
304
      MiddleName = Entry(ContactForm, textvariable=m name, font=('arial', 14, 'bold'),
bd=10, width=20, justify='left')
      MiddleName.grid(row=1, column=1)
305
306
307
      LastName = Entry(ContactForm, textvariable=1 name, font=('arial', 14, 'bold'),
bd=10, width=20, justify='left')
308
      LastName.grid(row=2, column=1)
309
310
      RadioGroup.grid(row=3, column=1)
311
312
      Age = Entry(ContactForm, textvariable=age, font=('arial', 14, 'bold'), bd=10,
width=20, justify='left')
313
      Age.grid(row=4, column=1)
314
315
      HomeAddress = Entry(ContactForm, textvariable=home address, font=('arial', 14,
'bold'), bd=10, width=20, justify='left')
316
      HomeAddress.grid(row=5, column=1)
317
318
      PhoneNumber = Entry(ContactForm, textvariable=phone_number, font=('arial',
14, 'bold'), bd=10, width=20, justify='left')
319
      PhoneNumber.grid(row=6, column=1)
320
321
      Religion = Entry(ContactForm, textvariable=religion, font=('arial', 14, 'bold'),
bd=10, width=20, justify='left')
322
      Religion.grid(row=7, column=1)
323
324
      Nationality = Entry(ContactForm, textvariable=nationality, font=('arial', 14, 'bold'),
bd=10, width=20, justify='left')
325
      Nationality.grid(row=8, column=1)
326
327
      # =========BUTTONS==================
      ButtonAddContact = Button(ContactForm, text='Save', bd=10, font=('arial', 12,
328
'bold'), relief="ridge", fg="white",
329
              bg="light blue", command=Submit)
330
      ButtonAddContact.grid(row=9, columnspan=2, pady=10)
331
332
333 #
334 Top = Frame(root, width=500, bd=1, relief=SOLID)
335 Top.pack(side=TOP)
336 Mid = Frame(root, width=500, bg="light blue")
337 Mid.pack(side=BOTTOM)
338 f1 = Frame(root, width=6, height=8, bd=8, bg="light blue")
```

```
339 fl.pack(side=BOTTOM)
340 flb = Frame(f1, width=6, height=8, bd=8, bg="light blue")
341 flb.pack(side=BOTTOM)
342 MidLeft = Frame(Mid, width=100)
343 MidLeft.pack(side=LEFT, pady=10)
344 MidLeftPadding = Frame(Mid, width=370, bg="light blue")
345 MidLeftPadding.pack(side=LEFT)
346 MidRight = Frame(Mid, width=100)
347 MidRight.pack(side=RIGHT, pady=10)
348 TableMargin = Frame(root, width=500)
349 TableMargin.pack(side=TOP)
350
351 # LABELS
352 lbl_title = Label(Top, text="Contact Book", bd=12, relief=GROOVE, fg="black",
bg="peachpuff2",
353
                font=("Times", 36, "bold italic"), pady=3)
354 lbl_title.pack(fill=X)
355
356
357 # BUTTONS
358 ButtonAdd = Button(flb, text='Add New Contact', bd=8, font=('arial', 12, 'bold'),
relief="groove", fg="black",
359
              bg="dark gray", command=AddNewContact).grid(row=0, column=0,
ipadx=20, padx=30)
360
361 ButtonDelete = Button(flb, text='Delete', bd=8, font=('arial', 12, 'bold'),
relief="groove", command=Delete,
362
              fg="black", bg="dark gray").grid(row=0, column=1, ipadx=20)
363
364 ButtonExit = Button(flb, text='Exit System', bd=8, font=('arial', 12, 'bold'),
relief="groove", command=Exit,
             fg="black", bg="dark gray").grid(row=0, column=2, ipadx=20, padx=30)
365
366
367 # TABLES
368 scrollbarx = Scrollbar(TableMargin, orient=HORIZONTAL)
369 scrollbary = Scrollbar(TableMargin, orient=VERTICAL)
370 tree = ttk.Treeview(TableMargin, columns=("Id", "First Name", "Middle Name",
"Last Name", "Gender", "Age", "Home Address", "Phone Number", "Religion",
"Nationality"),
371
               height=400, selectmode="extended", yscrollcommand=scrollbary.set,
xscrollcommand=scrollbarx.set)
372 scrollbary.config(command=tree.yview)
373 scrollbary.pack(side=RIGHT, fill=Y)
374 scrollbarx.config(command=tree.xview)
375 scrollbarx.pack(side=BOTTOM, fill=X)
376 tree.heading('Id', text="Id", anchor=W)
377 tree.heading('First Name', text="First Name', anchor=W)
378 tree.heading('Middle Name', text=''Middle Name'', anchor=W)
379 tree.heading('Last Name', text="Last Name", anchor=W)
```

```
380 tree.heading('Gender', text="Gender", anchor=W)
381 tree.heading('Age', text="'Age'', anchor=W)
382 tree.heading('Home Address', text=''Home Address'', anchor=W)
383 tree.heading('Phone Number', text="phone Number", anchor=W)
384 tree.heading('Religion', text="Religion", anchor=W)
385 tree.heading('Nationality', text="Nationality", anchor=W)
386 tree.column('#0', stretch=NO, minwidth=0, width=0)
387 tree.column('#1', stretch=NO, minwidth=0, width=0)
388 tree.column('#2', stretch=NO, minwidth=0, width=80)
389 tree.column('#3', stretch=NO, minwidth=0, width=120)
390 tree.column('#4', stretch=NO, minwidth=0, width=90)
391 tree.column('#5', stretch=NO, minwidth=0, width=80)
392 tree.column('#6', stretch=NO, minwidth=0, width=30)
393 tree.column('#7', stretch=NO, minwidth=0, width=120)
394 tree.column('#8', stretch=NO, minwidth=0, width=120)
395 tree.column('#9', stretch=NO, minwidth=0, width=120)
396 tree.pack()
397 tree.bind('<Double-Button-1>', UpdateContactWindow)
398
399 #
400 if __name__ == '__main__':
401
      Database()
402
      root.mainloop()
```

Results

We finally got the end product as a 'Conatct Management System' that includes all the mentioned modules. We learnt how to make a GUI using Tkinter in Python and also learnt to implement database connectivity using sqlite3.

This project aims at Business Process automation by providing a user friendly interface to the users to let them easily use the contact book. Through this project we aim to target the easy to understand by the user and operator and good user interface.

>Easy to use.

>Be easy to operate.

>Manages the information of profiles.

>shows the information about the contact.

>To increase efficiency of managing the contact.

>Edit ,Add, update of records to improved which result in proper resource management of contact data.

>work becomes very speedy.

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