



## **Homework #9**

**01286121 Computer Programming  
Software Engineering Program,  
Department of Computer Engineering,  
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By

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1. Create a mobile phone user interface as follows:

```
from tkinter import *
```

```
from tkinter import messagebox
```

```
class Phone:
```

```
    def __init__(self):
```

```
        window = Tk()
```

```
        window.title("PhoneThingy")
```

```
        window.geometry('350x450+700+200')
```

```
        self.inpus = Entry(window, state='readonly')
```

```
        self.inpus.grid(row=0, column=0, columnspan=3)
```

```
        buttons = {
```

```
            "1": self.add_char,
```

```
            "2": self.add_char,
```

```
            "3": self.add_char,
```

```
            "4": self.add_char,
```

```
            "5": self.add_char,
```

```
            "6": self.add_char,
```

```
            "7": self.add_char,
```

```
            "8": self.add_char,
```

```
            "9": self.add_char,
```

```
            "*": self.add_char,
```

```
            "0": self.add_char,
```

```
            "#": self.add_char,
```

```
        }
```

```
        row, col = 1, 0
```

```
        for btn_text in buttons:
```

```
            Button(window, text=btn_text, command=lambda t=btn_text: self.add_char(t)).grid(row=row, column=col,
sticky='nsew')
```

```
col += 1

if col > 2:
    col = 0
    row += 1

Button(window, text="Talk", command=self.dial_number).grid(row=5, column=0, columnspan=2, sticky='nsew')

Button(window, text="<", command=self.delete_rightmost_char).grid(row=5, column=2, columnspan=1,
sticky='nsew')
```

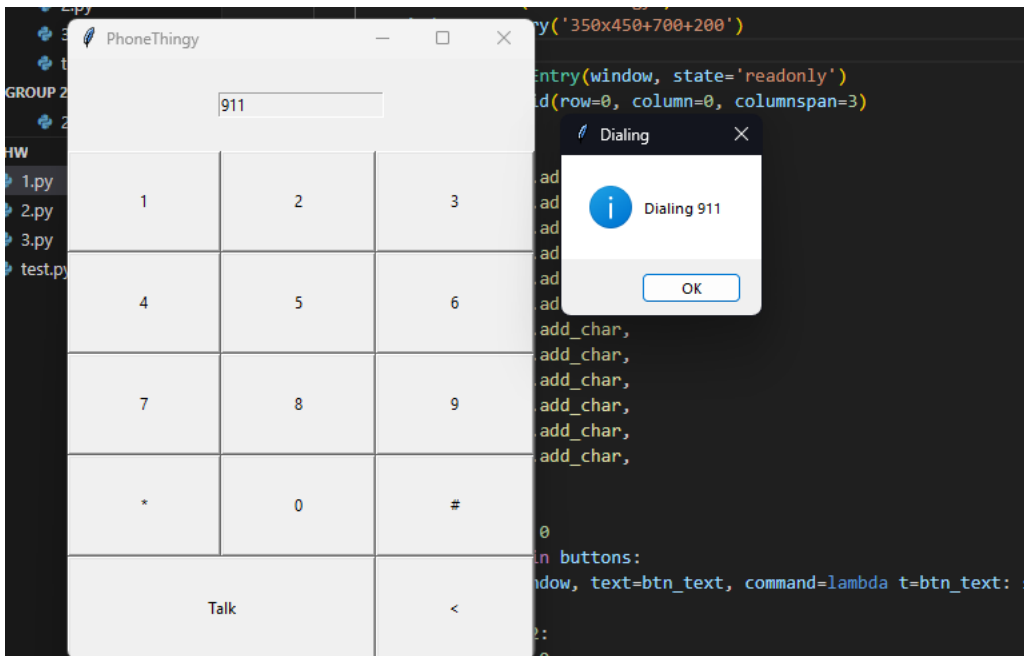
```
window.columnconfigure((0, 1, 2), weight=1)
window.rowconfigure((0, 1, 2, 3, 4, 5), weight=1)
window.mainloop()
```

```
def add_char(self, char):
    self.inpus.config(state=NORMAL)
    self.inpus.insert(END, char)
    self.inpus.config(state="readonly")
```

```
def dial_number(self):
    number = self.inpus.get()
    messagebox.showinfo("Dialing", f"Dialing {number}")
```

```
def delete_rightmost_char(self):
    text = self.inpus.get()
    if text:
        self.inpus.config(state=NORMAL)
        self.inpus.delete(len(text) - 1)
        self.inpus.config(state="readonly")
```

Phone()



2. Create a GUI for your Python project and submit it as homework No.9

```
x = input("Enter some text: ")
```

```
import tkinter as tk
```

```
from tkinter import messagebox
```

```
class InfoApp:
```

```
    def __init__(self, root):
```

```
        root.title('Information')
```

```
        self.lbl_name = tk.Label(root, text="Name:")
```

```
        self.lbl_name.grid(row=0, column=0, padx=10, pady=10, sticky="w")
```

```
        self.ent_name = tk.Entry(root)
```

```
        self.ent_name.grid(row=0, column=1, padx=10, pady=10)
```

```
        self.lbl_age = tk.Label(root, text="Age:")
```

```
        self.lbl_age.grid(row=1, column=0, padx=10, pady=10, sticky="w")
```

```
        self.ent_age = tk.Entry(root)
```

```
self.ent_age.grid(row=1, column=1, padx=10, pady=10)
```

```
self.lbl_address = tk.Label(root, text="Address:")
```

```
self.lbl_address.grid(row=2, column=0, padx=10, pady=10, sticky="w")
```

```
self.ent_address = tk.Entry(root, width=40)
```

```
self.ent_address.grid(row=2, column=1, padx=10, pady=10)
```

```
self.btn_submit = tk.Button(root, text="Submit", command=self.show_info)
```

```
self.btn_submit.grid(row=3, column=0, columnspan=2, pady=20)
```

```
def show_info(self):
```

```
    name = self.ent_name.get()
```

```
    age = self.ent_age.get()
```

```
    address = self.ent_address.get()
```

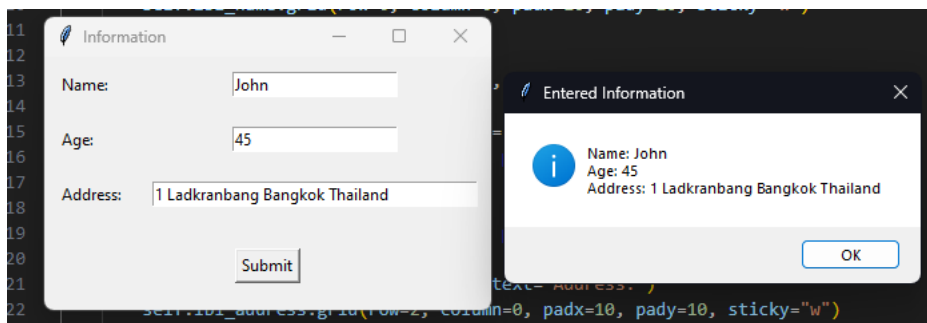
```
    messagebox.showinfo('Entered Information', f'Name: {name}\nAge: {age}\nAddress: {address}')
```

```
if __name__ == '__main__':
```

```
    root = tk.Tk()
```

```
    app = InfoApp(root)
```

```
    root.mainloop()
```



3. Write a program that displays a new circle at the position of the left mouse click and removes the circle at the position of the right mouse click.

```
from tkinter import *
```

```
from tkinter import messagebox
```

```
class CircleThingy:
```

```
    def __init__(self):
```

```
        self.window = Tk()
```

```
        self.window.title("CircleThingy")
```

```
        self.canvas = Canvas(self.window, width=500, height=300, bg='white')
```

```
        self.canvas.pack(padx=0, pady=0)
```

```
        self.prev = None
```

```
        self.canvas.bind('<Button-1>', self.draw)
```

```
        self.canvas.bind('<Button-3>', self.dele)
```

```
        self.window.mainloop()
```

```
    def draw(self, move_event):
```

```
        self.canvas.create_oval(move_event.x + 10, move_event.y + 10, move_event.x - 10, move_event.y - 10,
width=1, fill='white')
```

```
        self.prev = move_event
```

```
    def dele(self, move_event):
```

```
        item = self.canvas.find_closest(move_event.x, move_event.y)
```

```
        x1, y1, x2, y2 = self.canvas.coords(item)
```

```
        if x1 <= move_event.x <= x2 and y1 <= move_event.y <= y2:
```

```
            self.canvas.delete(item)
```

```
        self.prev = move_event
```

```
CircleThingy()
```

