The first py file:

```
import tkinter as tk
import tkinter.ttk as ttk
class CompLamp:

    def __init__(self, parent, width, order, color="red", *args, **kwargs):

        self.frame = ttk.Frame(parent.frame, *args, **kwargs)
        self.canvas = tk.Canvas(self.frame, width=width, height=width, bg="gray",
            highlightthickness=0)
        self.canvas.pack()
        self.color = color
        offset = width//8
        self.lamp = self.canvas.create_oval(offset, offset,
            7*offset,
        7*offset,
        fill='black')
        self.frame.grid(row=order, column=0)
        self.state = "off"
    def turn_on(self):
        self.state = "on"
        self.canvas.itemconfigure(self.lamp, fill=self.color)
    def turn_off(self):
        self.state = "off"
```

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            self.canvas.itemconfigure(self.lamp, fill='black')
        def resize(self, width):
            self.canvas.config(width=width, height=width)
            offset = width//8
            self.canvas.coords(self.lamp, offset, offset, 7*offset, 7*offset)


class CompTrafficLight:


        def __init__(self, root, wd, initial_color="red", *args, **kwargs):
            if initial_color not in ("red", "yellow", "green"):
                raise ValueError(initial_color + " is not a valid color")
            self.frame = ttk.Frame(root, width=wd, *args, **kwargs)
            self.frame.grid(row=0, column=0)
            self.color = initial_color
            self.lamps = dict(zip(('red', 'yellow', 'green'),
                                  (CompLamp(self, wd, 0, 'red'),
                                  CompLamp(self, wd, 1, 'yellow'),
                                  CompLamp(self, wd, 2, 'green'))))
            self.lamps[self.color].turn_on()
        def change(self):
            """ Changes the traffic light's color to the next color in
            the sequence. """
            if self.color == 'red':
                new_color = 'green'
            elif self.color == 'green':
```

```
            new_color = 'yellow'
        elif self.color == 'yellow':
            new_color = 'red'
        self.lamps[self.color].turn_off()
        self.color = new_color
        self.lamps[self.color].turn_on()
    def resize(self, width):
        """ Changes the traffic light's frame width according to the
        parameter passed by the caller. """
        for lamp in self.lamps.values():
            lamp.resize(width)
```

The seconed py file:

```
import tkinter as tk
import tkinter.ttk as ttk

from comptrafficlight import CompTrafficLight

class CompTrafficLightApp:

    def __init__(self):
        root = tk.Tk()
        root.title("Traffic Light")
        frame = ttk.Frame(root)
```

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        frame.pack()
        button = ttk.Button(frame, text='Change', command=self.do_button_press)
        self.light = CompTrafficLight(frame, 100, padding=25)
        button.grid(row=0, column=0)
        self.light.frame.grid(row=0, column=1)
        root.mainloop()
    def do_button_press(self):
        self.light.change()

CompTrafficLightApp()
```