

## Solution 4: Message GUI

Message Board	_		×	
Paul: Watching Starwars for the first time! Ann: Darth Vader is Luke's father. Paul: Noooooooooo! Rick: !!SPOILER ALERT!!				
Filter: Paul, Ann, Rick	Refresh		Clear	
Sender: Rick Message: !!SPOILER ALERT!	!	Post		

```
import tkinter
from tkinter import ttk
import corkboard
board = corkboard.CorkBoard()
corkboard.make example data(board)
def post_message():
    print("POST MESSAGE")
    mes = corkboard.Message(text_sender.get(),text_message.get(),"TODO NOW")
    board.post message(mes)
    refresh()
def refresh():
    senders = text from.get().split(',')
    messages.configure(state="normal")
    messages.delete('1.0', tkinter.END)
    for ms in board.get_messages_from(senders):
        messages.insert(tkinter.END, str(ms)+"\n")
    messages.configure(state="disabled")
def clear():
    board.clear()
    refresh()
```

```
top = tkinter.Tk()
messages = tkinter.Text(top, height=10, width=70)
messages.pack(fill=tkinter.BOTH,expand=1)
row1 = tkinter.Frame(top)
lab show = ttk.Label(row1,text="Show from",width=10,anchor=tkinter.E)
lab show.pack(side=tkinter.LEFT)
text from = ttk.Entry(row1)
text from.pack(side=tkinter.LEFT, fill=tkinter.X, expand=1)
bt clear = ttk.Button(row1,text="Clear",command=clear)
bt clear.pack(side=tkinter.RIGHT)
bt refresh = ttk.Button(row1,text="Refresh",command=refresh)
bt refresh.pack(side=tkinter.RIGHT)
row1.pack(fill=tkinter.X)
row2 = tkinter.Frame(top)
lab sender = ttk.Label(row2,text="Sender",width=10,anchor=tkinter.E)
lab sender.pack(side=tkinter.LEFT)
```

```
text sender = ttk.Entry(row2)
text sender.pack(side=tkinter.LEFT)
lab_message = ttk.Label(row2,text="Message")
lab_message.pack(side=tkinter.LEFT)
text message = ttk.Entry(row2)
text_message.pack(side=tkinter.LEFT,fill=tkinter.X,expand=1)
bt_post = ttk.Button(row2,text="Post",command=post_message)
bt post.pack(side=tkinter.LEFT)
row2.pack(fill=tkinter.X)
refresh()
top.mainloop()
```