

Q1. Apply regular expression for form validation. Create your domain-form using Tkinter Module.

- Form should contain Text box [For Name, Email Id, Phone number], Dropdown [for Gender], Spinbox [for Year/DoB] and other necessary widgets required for your domain.
- Validate Your Name, Email Id, Phone number in the form.

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In [ ]: import tkinter as tk
from tkinter import messagebox
from tkinter import Spinbox
import re

def validate_event_name():
    event_name = event_name_entry.get()
    if not re.match(r'^[a-zA-Z0-9\s]+$', event_name):
        messagebox.showerror("Error", "Event Name should only contain letters, n
        event_name_entry.delete(0, tk.END)
    return True

# Function to validate the event date
def validate_event_date():
    try:
        day = int(day_spinbox.get())
        month = int(month_spinbox.get())
        year = int(year_spinbox.get())

        # Check if the date is valid
        if not (1 <= day <= 31 and 1 <= month <= 12 and 2000 <= year <= 2030):
            messagebox.showerror("Invalid Date", "Please enter a valid date.")
            return False
        else:
            return True
    except ValueError:
        messagebox.showerror("Invalid Input", "Please enter numeric values for t
        return False

def validate_location():
    location = location_entry.get()
    if not re.match(r'^[a-zA-Z0-9\s]+$', location):
        messagebox.showerror("Error", "Location should only contain letters, num
        location_entry.delete(0, tk.END)
    return True

def submit_event():
    event_name = event_name_entry.get()
    event_date = f"{int(year_spinbox.get()):04d}-{int(month_spinbox.get()):02d}-
    location = location_entry.get()
    description = description_entry.get("1.0", tk.END)
    event_title = event_title_var.get()

    # Validate event name, event date, and location
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is_valid_event_name = validate_event_name()
is_valid_event_date = validate_event_date()
is_valid_location = validate_location()

# Check if all fields are valid
if is_valid_event_name and is_valid_event_date and is_valid_location:
    # Display a message box with the entered event details
    message = f"Event Name: {event_name}\nEvent Date: {event_date}\nLocation: {location}"
    messagebox.showinfo("Event Details", message)

    # Clear the form fields after submission
    event_name_entry.delete(0, tk.END)
    day_spinbox.delete(0, tk.END)
    month_spinbox.delete(0, tk.END)
    year_spinbox.delete(0, tk.END)
    location_entry.delete(0, tk.END)
    description_entry.delete("1.0", tk.END)
    event_title_var.set(None)

# Create the main window
root = tk.Tk()
root.title("Event Management")

# Create and pack widgets
event_name_label = tk.Label(root, text="Event Name:")
event_name_label.pack()
event_name_entry = tk.Entry(root)
event_name_entry.pack()

# Function to handle date selection
def update_date():
    event_date = f"{year_spinbox.get():04d}-{month_spinbox.get():02d}-{day_spinbox.get():02d}"
    print("Selected date:", event_date)

event_date_label = tk.Label(root, text="Event Date:")
event_date_label.pack()

# Spinbox for day
day_label = tk.Label(root, text="Day:")
day_label.pack()
day_spinbox = Spinbox(root, from_=1, to=31)
day_spinbox.pack()

# Spinbox for month
month_label = tk.Label(root, text="Month:")
month_label.pack()
month_spinbox = Spinbox(root, from_=1, to=12)
month_spinbox.pack()

# Spinbox for year
year_label = tk.Label(root, text="Year:")
year_label.pack()
year_spinbox = Spinbox(root, from_=2000, to=2030)
year_spinbox.pack()

location_label = tk.Label(root, text="Location:")
location_label.pack()
location_entry = tk.Entry(root)
location_entry.pack()

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description_label = tk.Label(root, text="Description:")
description_label.pack()
description_entry = tk.Text(root, height=4, width=30)
description_entry.pack()

# Radio buttons for Event Title
event_title_label = tk.Label(root, text="Event Status:")
event_title_label.pack()

# Variable to store the selected event title
event_title_var = tk.StringVar()

# Create radio buttons
upcoming_radio = tk.Radiobutton(root, text="Upcoming", variable=event_title_var, v
upcoming_radio.pack()

ongoing_radio = tk.Radiobutton(root, text="Ongoing", variable=event_title_var, v
ongoing_radio.pack()

completed_radio = tk.Radiobutton(root, text="Completed", variable=event_title_va
completed_radio.pack()

submit_button = tk.Button(root, text="Submit", command=submit_event)
submit_button.pack()

root.mainloop()
```