

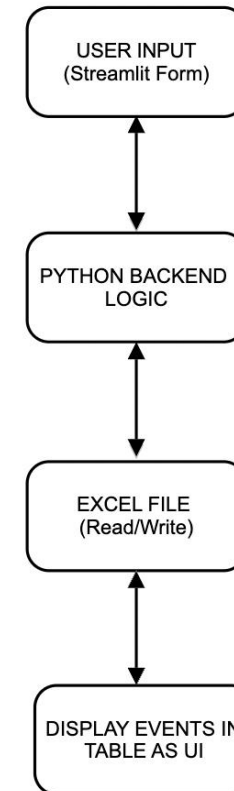
# CALENDAR MANAGEMENT

An interactive calendar tool built with Python and Streamlit to create, view, and manage events easily.

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# APPROACH & DESIGN

- ❑ Modular design: Separation of logic (calendar\_logic.py) and UI (Streamlit).
- ❑ Uses OOP to manage event data with Event and Calendar classes.
- ❑ Excel (.xlsx) file acts as persistent backend using openpyxl.
- ❑ Automatically loads/saves events with sorting and conflict checks.
- ❑ Error handling for file issues and datetime formats.
- ❑ Real-time available slot computation for flexible scheduling.
- ❑ Streamlit interface provides forms, tables, and feedback instantly.



# KEY FILES & FOLDERS

- `streamlit_app.py` -  
Entry point for  
Streamlit app.

- `calendar_logic.py` -  
Contains helper  
functions (create,  
read, delete events).

- `calendar_data.xlsx`  
- Excel file for data  
storage.

# EXECUTION PROCESS

1. Install dependencies using pip (Streamlit,..).

2. Run Streamlit app: `streamlit run"/File/Path/Name/streamlit_app.py"`

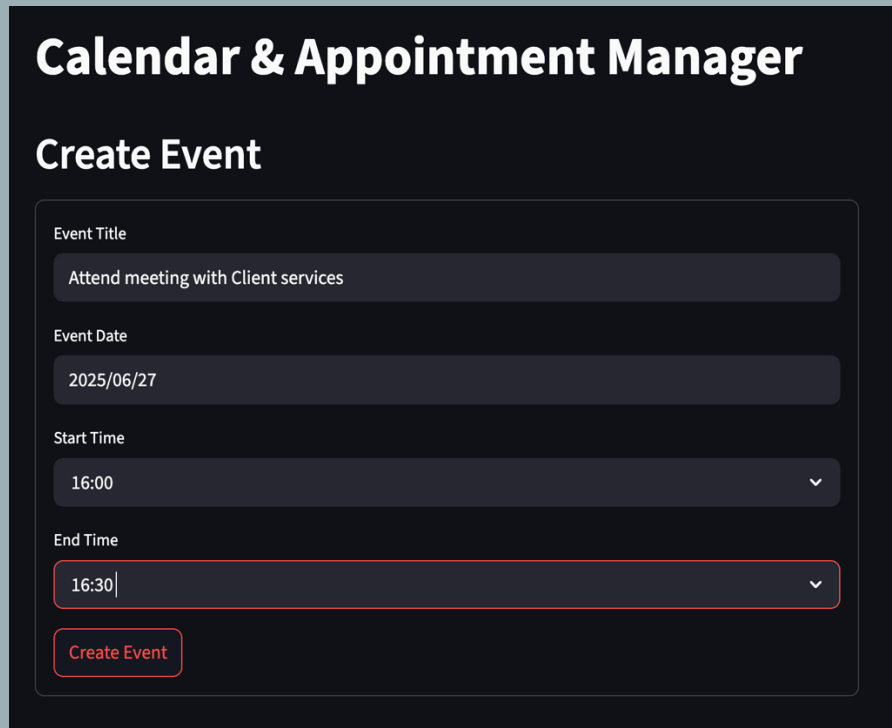
3. Add events via UI and verify updates in Excel file.

4. Delete or update events and check for correct behavior.

5. Validate time conflicts and error messages.

# WORKING OF APPLICATION WITH TEST DATA

NOTE: Testing data when current Date & Time is 2025-06-27 3:00 PM



**Calendar & Appointment Manager**

**Create Event**

Event Title  
Attend meeting with Client services

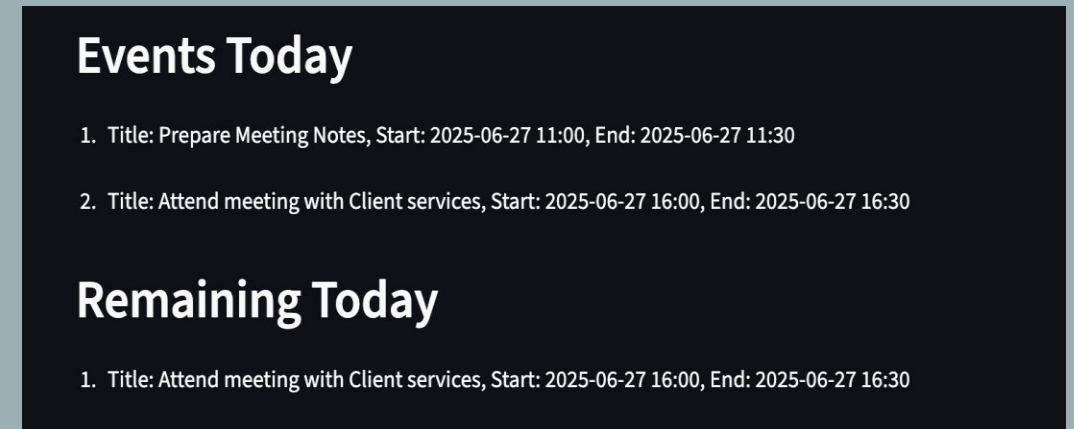
Event Date  
2025/06/27

Start Time  
16:00

End Time  
16:30

Create Event

Fig 1: Creating an Event



**Events Today**

1. Title: Prepare Meeting Notes, Start: 2025-06-27 11:00, End: 2025-06-27 11:30
2. Title: Attend meeting with Client services, Start: 2025-06-27 16:00, End: 2025-06-27 16:30

**Remaining Today**

1. Title: Attend meeting with Client services, Start: 2025-06-27 16:00, End: 2025-06-27 16:30

Fig 2: Showcasing all the events and remaining events for the current day.

# WORKING OF APPLICATION WITH TEST DATA

## Events for Specific Date

Choose a date

2025/06/27

< June 2025 > -27 11:00, End: 2025-06-27 11:30

Su Mo Tu We Th Fr Sa start: 2025-06-27 16:00, End: 2025-06-27 16:30

1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

▼

Fig 3: Identifying scheduled events for a selected day

## Delete Event

Choose event to delete

1. Prepare Meeting Notes (2025-06-27 11:00) ▼

1. Prepare Meeting Notes (2025-06-27 11:00)

2. Attend meeting with Client services (2025-06-27 16:00)

Fig 4: Deleting any event from list of all the events

# WORKING OF APPLICATION WITH TEST DATA

## Find Available Slots

Date for Slot Search

2025/06/27

Duration in minutes

30 - +

Find Available Slots

445 slots found. Showing top 5:

- 15:05 - 15:35  
Duration: 30 mins
- 15:06 - 15:36  
Duration: 30 mins
- 15:07 - 15:37  
Duration: 30 mins
- 15:08 - 15:38  
Duration: 30 mins
- 15:09 - 15:39  
Duration: 30 mins

Fig 5: Finding next available slot for given duration

# WORKING OF APPLICATION WITH TEST DATA

TEST CASE 1: Trying to schedule an event in an already scheduled slot.

TEST CASE 2: Only showing the events remaining for the current day while excluding the completed tasks.

### Create Event

Event Title

Document Analysis

Event Date

2025/06/27

Start Time

16:15

End Time

17:00

Create Event

Overlaps with: Attend meeting with Client services

### Events Today

- Title: Prepare Meeting Notes, Start: 2025-06-27 11:00, End: 2025-06-27 11:30
- Title: Attend meeting with Client services, Start: 2025-06-27 16:00, End: 2025-06-27 16:30

## Events Today

- Title: Prepare Meeting Notes, Start: 2025-06-27 11:00, End: 2025-06-27 11:30
- Title: Attend meeting with Client services, Start: 2025-06-27 16:00, End: 2025-06-27 16:30
- Title: Document Analysis, Start: 2025-06-27 16:45, End: 2025-06-27 17:30

## Remaining Today

- Title: Attend meeting with Client services, Start: 2025-06-27 16:00, End: 2025-06-27 16:30
- Title: Document Analysis, Start: 2025-06-27 16:45, End: 2025-06-27 17:30



# WORKING OF APPLICATION WITH TEST DATA

	A	B	C	D
1	Title	Start Time	End Time	
2	Attend meeting with Client service	2025-06-27 16:00:00	2025-06-27 16:30:00	
3	Prepare Meeting Notes	2025-06-27 11:00:00	2025-06-27 11:30:00	
4	Document Analysis	2025-06-27 16:45:00	2025-06-27 17:30:00	
5	Submit Project	2025-06-28 10:00:00	2025-06-28 10:30:00	
6				
7				
8				
9				
10				

Fig 6 :The given user input is stored in the excel file  
"calendar\_data.xlsx"

Github Repository:  
<https://github.com/Lasvitha05/Calendar-Management-Application/tree/main>

**THANK YOU !!**