**Calendar Application Problem**

**Overview**

You are tasked with implementing a simple calendar application in C#. The application manages

appointments, each of which has a name, start time, duration, and location. The Calendar

class will be responsible for scheduling, deleting, and retrieving appointments. Some of the

methods in the Calendar class have been left as TODOs, and you need to implement them.

Classes

1. Appointment Class:

=> Represents an appointment with the following properties:

■ Name: The name of the appointment.

■ StartTime: The start time of the appointment.

■ DurationInMinutes: The duration of the appointment in minutes.

■ Location: The location of the appointment.

=> Constructor to initialize these properties.

2. Calendar Class:

=> Manages a list of appointments.

=> Methods to schedule, delete, and retrieve appointments.

**Your Task**

You need to implement the following methods in the Calendar class:

1. DeleteAppointment Method:

=> Deletes an appointment by its name from the list of appointments. If no appointment with the given name exists, the method should do nothing.

2. IsOverlapping Method:

=> Checks if a new appointment overlaps with any existing appointments. An appointment overlaps if it starts before an existing appointment ends and ends after an existing appointment starts.

3. GetAppointments Method:

=> Returns a list of all appointments sorted by their start time.

4. GetAppointmentsByLocation Method:

=> Returns a list of all appointments that are scheduled at a specific location.

Code Link

You can fork the source code and implement the methods using this link:

https://www.mycompiler.io/view/1U3IUWmuCbt