

- **Being Ted Mosby's**

Inspired by Ted Mosby's character, a captivating and imaginative event planning company called "Ted's Stories" has emerged in New York City. Ted, the founder of the company, is passionate about bringing people's love stories to life through meticulously planned events, such as weddings. The company has a limited number of event planners who work together to create the most romantic and memorable events.

Ted, known for his romantic gestures, believes in the power of serendipity. He wants to encourage his event planners to embrace spontaneous ideas and collaborate with each other. However, to ensure that the events are well-organized, certain aspects need to be managed:

1. Coordinating the availability of event planners to avoid overbooking.
2. Managing shared resources, such as proposal spots, decorations, and audiovisual equipment.
3. Ensuring that each event is executed seamlessly and on schedule.
4. Synchronizing the use of shared resources and communication among event planners to prevent conflicts.

A C program can be developed using semaphores, processes, and thread mutex locks to address these challenges:

1. Semaphores can be used to manage the availability of event planners, ensuring they take on new events only when they have the capacity.
2. Processes can represent individual event planners and their actions (planning events, using shared resources, and coordinating with other planners).
3. Thread mutex locks can be used to synchronize the use of shared resources like proposal spots, decorations, and audiovisual equipment, ensuring they are used for one event at a time.
4. Additional semaphores can be used to manage the communication and collaboration between event planners, enabling spontaneous ideas and teamwork.

By utilizing semaphores, processes, and thread mutex locks, the C program can effectively simulate the romantic and imaginative environment of "Ted's Stories" event planning company, while addressing the concurrency issues related to event planner availability, shared resource management, and collaboration that arise in this scenario.