**Problem Statement**

* The event management system for film firms helps organize and manage pre-release and success events for films. The system tracks details about events, films, attendees, and organizers. It provides functionalities for querying and analysing event data to improve management and decision-making.

// Event class

class Event {

private int eventId;

private LocalDate eventDate;

private String location;

private int numberOfAttendees;

private double budget; }

// Film class

class Film {

private int filmId;

private String filmName;

private LocalDate releaseDate;}

// Organizer class

class Organizer {

private int organizerId;

private String organizerName;

private int eventsManaged;}

// Attendee class

class Attendee {

private int attendeeId;

private String attendeeName;

private int age;

private String gender;}

/ /Mock data lists

public class MockData {

public static List<Event> events = Arrays.asList(

new Event(1, LocalDate.of(2023, 3, 15), "Los Angeles", 200, 10000),

new Event(2, LocalDate.of(2023, 5, 20), "New York", 150, 8000),

new Event(3, LocalDate.of(2023, 7, 10), "London", 300, 12000)

);

public static List<Film> films = Arrays.asList(

new Film(1, "The Great Movie", LocalDate.of(2022, 12, 31)),

new Film(2, "Blockbuster Returns", LocalDate.of(2023, 4, 15)),

new Film(3, "Summer Adventure", LocalDate.of(2023, 8, 25))

);

public static List<Organizer> organizers = Arrays.asList(

new Organizer(1, "John Doe", 3),

new Organizer(2, "Jane Smith", 2),

new Organizer(3, "Michael Johnson", 4)

);

public static List<Attendee> attendees = Arrays.asList(

new Attendee(1, "Alice", 25, "Female"),

new Attendee(2, "Bob", 30, "Male"),

new Attendee(3, "Carol", 28, "Female"),

new Attendee(4, "David", 22, "Male"),

new Attendee(5, "Eve", 35, "Female"),

new Attendee(6, "Frank", 27, "Male")

);

}

**Very Easy Questions**

1. **How many events have been organized by the firm?**
2. **List the names of all films for which events have been organized.**
3. **What is the average number of attendees per event?**
4. **Get the details of the event with the highest number of attendees.**
5. **Print the names of all organizers in the organization.**

**Easy Questions**

1. **Count the number of events held in each location.**
2. **What is the total number of attendees for each film?**
3. **Get the details of the event held after January 1, 2023.**
4. **What is the average duration of events organized by the firm?**
5. **List the names of all films released after 2020.**

**Medium Questions**

1. **Get the details of the event with the most significant budget.**
2. **What is the average age of attendees for each event?**
3. **How many male and female attendees are there in the system?**
4. **Get the names of all organizers who have managed more than three events.**
5. **What is the total budget allocated for all events organized in 2022?**

**Hard Questions**

1. **Get the details of the youngest attendee in the event with the most attendees.**
2. **Which film had the most successful event in terms of attendee count?**
3. **What is the average feedback rating for events organized by each organizer?**
4. **List the names of all events organized in each month of 2023.**
5. **What is the total number of events organized by each organizer?**

**Very Hard Questions**

1. **Separate the events with a duration of more than 3 hours from those with a duration of 3 hours or less.**
2. **Who is the most experienced organizer in the firm? Provide their total number of events managed and their tenure.**
3. **Get the details of the event with the oldest film (by release date).**
4. **How many films had more than one pre-release event?**
5. **What is the total budget for events organized in each quarter of 2023?**