**Assignment 1 – Movie Management**

**Movie**

* - title: String
* - price: double
* + Movie(title: String, price: double)

**Seat**

* - seatNumber: String
* - description: String
* - additionalCharge: double
* - isReserved: boolean
* + Seat(seatNumber: String, description: String, additionalCharge: double, isReserved: boolean)
* + getTotalPrice(): double
* + reserveSeat(): void

**Room**

* - roomNumber: int
* - movie: Movie
* - seats: List<Seat>
* + Room(roomNumber: int, movie: Movie)
* + addSeat(seat: Seat): void
* + getTotalSeats(): int
* + getAvailableSeats(): int

**Cinema**

* - name: String
* - rooms: List<Room>
* + Cinema(name: String)
* + addRoom(room: Room): void
* + getTotalRevenue(): double
* + getRoomWithMostSeats(): Room
* + getRoomWithFewestSeats(): Room
* + getMostExpensiveMovie(): Movie

**Assignment 2 – Bicycle Rental**

**Customer**

* - name: String
* - dateOfBirth: LocalDate
* + Customer(name: String, dateOfBirth: LocalDate)
* + getAge(): int

**Bike**

* - id: String
* - totalDistance: double
* + Bike(id: String)
* + addDistance(km: double): void
* + needsMaintenance(): boolean

**Rental**

* - customer: Customer
* - bike: Bike
* - startTime: LocalDateTime
* - endTime: LocalDateTime
* - distanceTraveled: double
* + Rental(customer: Customer, bike: Bike, startTime: LocalDateTime)
* + endRental(endTime: LocalDateTime, distanceTraveled: double): void
* + getDurationInHours(): double
* + getTotalCost(): double

**NSGroup**

* - bikes: List<Bike>
* - rentals: List<Rental>
* + NSGroup()
* + addBike(bike: Bike): void
* + addRental(rental: Rental): void
* + getBikesForMaintenance(): List<Bike>