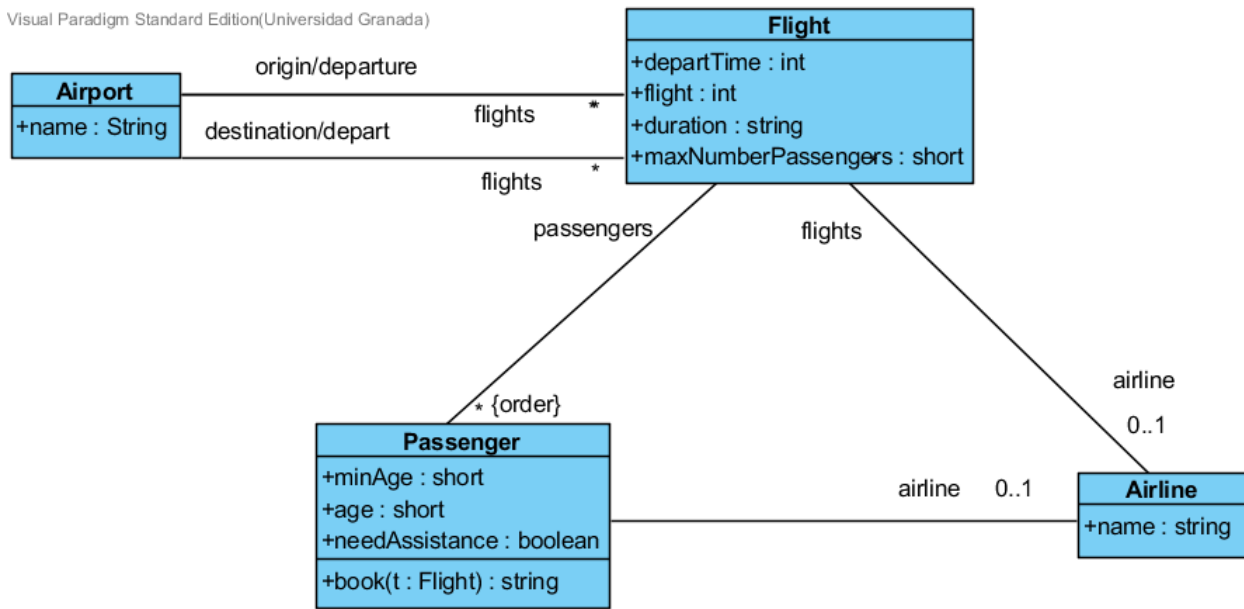# Ejercicios de OCL
(Object Constraint Language)

Desarrollo de Sistemas de Software basados en Componentes y Servicios

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1.- All flight objects must have a duration attribute less than 4 hours

```
context Flight inv maxDuration:
self.duration < 4
```

2.- Maximum number of passengers in any flight cannot exceed 1000

La solución de este ejercicio depende de si suponemos o no que la variable Flight::maxNumberPassengers contiene el número máximo de pasajeros de un vuelo (ya que en ningún sitio lo especifica). Si **NO** lo suponemos:

```
context Flight inv maxPassengers:
self.passengers->size() <= 1000
```

Y por el contrario, si lo suponemos, se podría simplificar con:

```
context Flight inv maxPassengers:
self.maxNumberPassengers <= 1000
```

3.- For every passenger, the age attribute must be greater than or equal to the class attribute: 'minAge'

```
context Passenger inv minAge:
self.age >= self.minAge
```

4.- The duration attribute of all flight-objects must be equal to the difference between the arrival time attribute and the departure time attribute

```
context Flight inv mandatoryDuration:

let arrivalTime : int =  self.deparTime + duration
```

5.- The airport from which a flight is leaving must be different from the destination airport

```
context Flight inv diffAirport:
self.origin.name <> self.destination.name
```

6.- For every flight, the name of the airport from which it is leaving must be "Amsterdam"

```
context Flight inv airportAmsterdam:
self.origin.name = "Amsterdam"
```