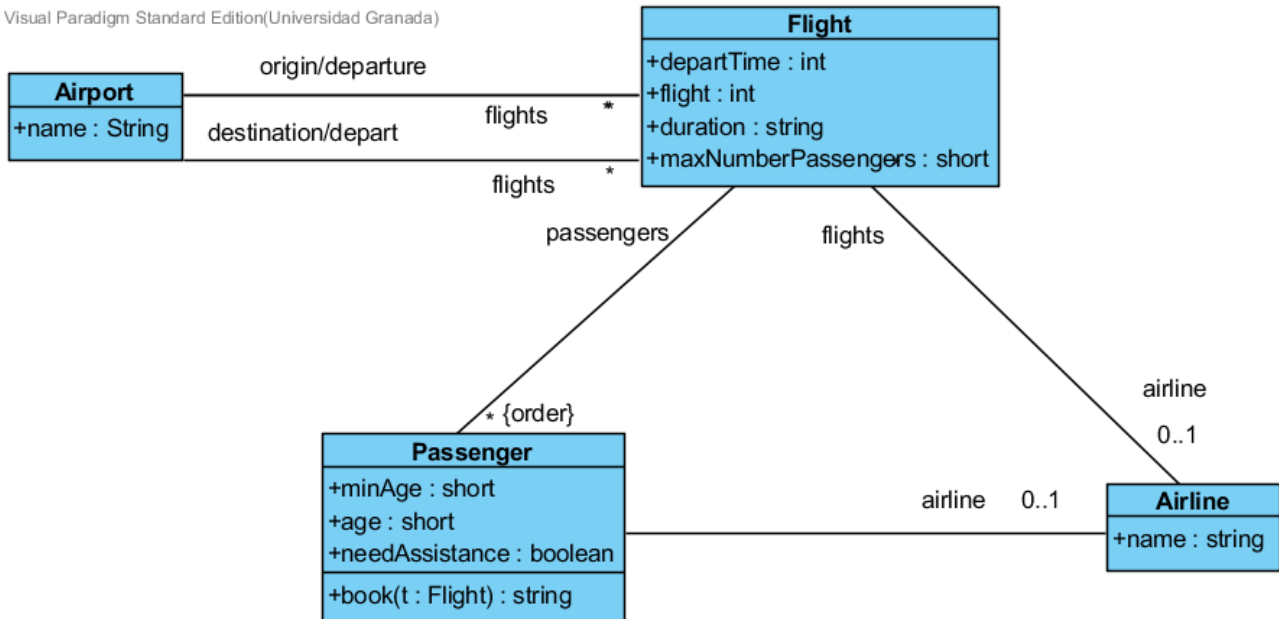


# Ejercicio del seminario 1

Visual Paradigm Standard Edition(Universidad Granada)



**Write the OCL expressions that guarantee the following conditions in the Interface Information Model of the figure above.**

**1) All flight objects must have a duration attribute less than 4 hours**

```
Context flight inv duracionVuelo:
    self.duration.toDouble <= 4.0
```

**2) Maximum number of passengers in any flight cannot exceed 1000**

```
Context Flight inv maxNumeroPasajeros:
    self.maxNumberPassengers <= 1000
```

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

```
Context Passenger inv mayorEdad:
    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 duracionCorrecta:

```
(self.arrival - self.departure) = 0
```

**5) The airport from which a flight is leaving must be different from the destination airport**

Context Flight inv vuelaDistintoSitio:

```
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 salidaAmsterdam:

```
self.origin.name = "Amsterdam"
```

**Nota:** Para todas las cuestiones he asumido que el contexto es la propia clase que se nombra porque no indica lo contrario. Por ejemplo, si la cuestión 3 hubiera indicado que es para todos los pasajeros de un vuelo entonces el contexto sería flight y la expresión sería así.

Context Flight inv mayorEdad:

```
self.passengers -> forAll( p | p.age >= p.minAge )
```