

## OCL cases study solution

- Age of a baby is less than 3 years.

**context** baby  
**inv:** **self**.age < 3

- Age of a child is between 3 and 18 years.

**context** child  
**inv:**  $3 \leq \mathbf{self}.age$  **and**  $\mathbf{self}.age < 18$

- An adult is older than 18 years.

**context** adult  
**inv:**  $18 \leq \mathbf{self}.age$

- Every child is watched by exactly one; an adult or a flight attendant.

**context** child  
**inv:**  $\mathbf{self}.watchedByAdult \rightarrow$   
 $\text{union}(\mathbf{self}.watchedByFA) \rightarrow \text{size}() = 1$

- If a child is watched by a flight attendant then they have to speak at least one common language.

**context** child  
**inv:**  $\mathbf{self}.watchedByFA \rightarrow \text{size}() = 1$  **implies**  
 $\mathbf{self}.watchedByFA.\text{speaks} \rightarrow$   
 $\text{intersection}(\mathbf{self}.\text{speaks}) \rightarrow \text{size}() > 0$