

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**
 $\mathbf{self}.watchedByFA.\text{speaks} \rightarrow$
 $\text{intersection}(\mathbf{self}.\text{speaks}) \rightarrow \text{size}() > 0$