# OCL Exercise: Flight Attendant Robot (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**: $3 \leq$ **self**.age **and self**.age $< 18$

- An adult is older than 18 years.

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

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

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

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

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