1. "Offerings are unique. In other words, multiple offerings on the same day and time slot must be offered at a different location."

```
context Offering
inv self.allInstances() -> forAll(o1, o2 |
o1 <> o2 implies
(o1.schedule <> o2.schedule or o1.location <> o2.location))
```

2. "Any client who is underage must necessarily be accompanied by an adult who acts as their guardian."

```
context Guardian
inv: self.childName <> null implies self.childAge < 18
```

3. "The city associated with an offering must be one of the city's that the instructor has indicated in their availabilities."

```
context Offering
inv self.location.city -> exists(c | self.instructor.availableCities->includes(c))
```

4. "A client does not have multiple bookings on the same day and time slot." (for simplicity we consider only identical day and time slots, even though in reality a booking on Monday 3pm – 4pm and another also on Monday 3:30pm – 4:30pm should not be acceptable.)

```
context Client
inv self.bookings->forAll(b1, b2 |
      b1 <> b2 implies (b1.schedule <> b2.schedule)
  )
```