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

context Schedule

      inv: self.timeSlot → forAll(t1, t2 : TimeSlot | t1.dayOfWeek = t2.dayOfWeek

                implies t1.endTime <= t2.startTime or t1.startTime >=

                t2.endTime)

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

context Client

      inv: self.age < 18 implies self.guardian.age >= 18 and

                self.guardian → size() = 1

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

context Offering

      inv: self.instructor.city → includes(self.location.city)

4. "A client does not have multiple bookings on the same day and time slot."

context Client

      inv: self.booking → forAll(b1,b2 : Booking |

          b1.offering.timeslot <> b2.offering.timeslot)