Safety: there has to be one finite point in which the condition breaks. E.g: initially, x = 0. If it breaks then what’s next doesn’t really matter, as the proposition is already broken

I.e: every red phase is preceded by a yellow phase: A0A1…An-1An… where An-1 ∉ {y} and An ∈ {r}

Liveness: there is one point in which the condition is fulfilled. At first it doesn’t matter what we do so long as there exists one point in which the proposition is fulfilled. E.g: at one point x will always be greater than 1.

How to prove that T satisfies P? 🡺 we create a bad prefix automata that checks the opposite and we intersect it with T. If the intersection is null, then the property P is validated.

Exo: Consider the property P = {red is immediately followed by green}, is this a regular safety property. If so, give NFA “A” such that L(A) = BadPref(P). Apply method to check whether T satisfies P.

Un dibujo de una persona

Descripción generada automáticamente con confianza media