

```

{-# OPTIONS --guardedness #-}

open import Language
open import Codata.Musical.Notation
open import Data.Nat
open import Data.Maybe

Id : Set
Id =  $N$ 

Val : Set
Val =  $N$ 

State : Set
State = Id  $\rightarrow$  Val

data Trace1 : Set where
  tnil : State  $\rightarrow$  Trace1
  tcons : State  $\rightarrow$   $\infty$  Trace1  $\rightarrow$  Trace1

record Trace3 : Set where
  coinductive
  constructor mkTr
  field
    hd : State
    tl : Maybe Trace3

```