

U0LPMPL2U : Could you have:``  
type Call  
= HungUp  
| Active PauseStatus HoldStatus  
``

U23SA861Y : also works  
U23SA861Y : you can limit impossible states, but impossible state transitions need to be encoded into the update  
U37HUSJ4R : interesting  
U37HUSJ4R : so what would `PauseStatus`?  
U0LPMPL2U : ``type PauseStatus = Paused | Unpaused  
type HoldStatus = OnHold | Live  
``

U23SA861Y : bools would also work there with type aliases  
U23SA861Y : the named constructors are a bit more descriptive however  
U0LPMPL2U : The type gives you extra safety though  
U0LPMPL2U : because you can't accidentally pass the hold boolean when you meant to pass the paused boolean  
U0LPMPL2U : You might also model this as:``  
type RecordingStatus = Paused | Recording

type Call  
= HungUp  
| OnHold RecordingStatus  
| Active RecordingStatus  
``

U0LPMPL2U : That way the tags on `Call` represent all the call states, each of which may or may not have an associated `RecordingStatus`  
U37HUSJ4R : very interesting!  
U37HUSJ4R : guess to make it more confusing though :wink: what happens if I need the statues to be `Maybe`?  
U37HUSJ4R : because we don't always know the state of the call  
U37HUSJ4R : eg its loading  
U37HUSJ4R : or maybe just add a constructor for `Loading`?  
U0LPMPL2U : yup  
U37HUSJ4R : is there a point you'd think this is getting silly though? for example: ` | Active PhoneNumber PauseStatus HoldStatus TransferStatus SomethingElse More`

U23SA861Y : at some point I might drop to a record instead of a list  
U0LPMPL2U : `HoldStatus` and `TransferStatus` are both tied to call state, not an active call right?  
U23SA861Y : probably at anything more than two  
U37HUSJ4R : no, it's an active call  
U0LPMPL2U : Hmmmm, I was thinking something like:  
``

type Call  
= HungUp  
| Loading  
| OnHold RecordingStatus  
| Transfer  
| Active RecordingStatus  
``

U0LPMPL2U : All of these are different states that a call could be in  
U37HUSJ4R : yes  
U0LPMPL2U : I'm thinking `RecordingStatus` only makes sense for `Active` calls  
U37HUSJ4R : I'd agree  
U37HUSJ4R : I think that last type is pretty much spot on  
U0LPMPL2U : You can think of it as "a call can be in one of N states, some of which have extra data associated (such as recording status)"  
U37HUSJ4R : thank you for the help

U37HUSJ4R : great to be able to chat through these questions

U0LPMPL2U : I'm glad we found a nice solution :slightly\_smiling\_face: