

U29JSAR9S : I should ask more questions in this channel, getting lots of good suggestions :slightly_smiling_face:
 U29JSAR9S : in this case though I tried that and I think the function is cleaner moving the Maybe.map inside the `toActualValue` function
 U48AEBJQ3 : I would suggest against that. If you want to clean it up, make another helper function to give it a cleaner name.
 U29JSAR9S : the function name for `toActualValue` is a bit rubbish though, I know :slightly_smiling_face:
 U48AEBJQ3 : Regardless of that, you are mixing concerns by having it deal with `Maybe`. It's good practice to write the function that doesn't need to know about how to take the `Maybe` apart and then inject that information using `map` or `andThen`
 U48AEBJQ3 : Also, I think that you can go `Bitwise.shiftLeftBy <&& (* 4` to raise something to the appropriate power.
 U29JSAR9S : that makes sense
 U23SA861Y : instead of indexed map I'd probably use a fold there
 U23SA861Y : `foldr (\v (p,a) -> (p*16,a+p*v)) (1,0) digits`
 U23SA861Y : likewise a maybe list function can be constructed``
 maybeList: List (Maybe a) -> Maybe (List a)
 maybeList l =
 let
 mapped = List.filterMap identity
 in
 if List.length mapped = List.length l then
 Just mapped
 else
 Nothing
 ...

U29JSAR9S : so you're suggesting something like:``
 hexToDec : String -> Maybe Int
 hexToDec hex =
 String.split "" hex
 |> List.map hexCharToDec
 |> maybeList
 |> (Maybe.map <&& Tuple.second <&& foldr (\v (p,a) -> (p*16,a+p*v)) (1,0))
 ...
 ?

U23SA861Y : it would do the thing, I'd probably split out the `Tuple.second <&& foldr` into a named function because it's a bit dense and give it a nice name
 U23SA861Y : accumulate list
 U23SA861Y : or have it be accumulateWithStride and have the 16 come in as a parameter
 U23SA861Y : The only thing not specified would be what happens to the empty list
 U48AEBJQ3 : I think I would like `sumDigits : Int -> List Int -> Int` better.
 U48AEBJQ3 : But names are hard.
 U29JSAR9S : just trying to test it out as I'm not convinced it does actually solve it (I think it might miss the case when you don't multiply by a power at all for the first hex digit) - getting:
 ...

the argument to function `length` is causing a mismatch.

```
120|      List.length mapped
      ^^^^^
```

Function `length` is expecting the argument to be:

List b

But it is:

```
... List (Maybe b) -> List b
... 
```

for the maybeList function - and I'm too tired to figure out what's up myself :slightly_smiling_face:

U23SA861Y : ahh the line should be `List.filterMap identity l`

U23SA861Y : my bad

U23SA861Y : well the first digit should be multiplied by one, the second by 16 and so on

U29JSAR9S : ah, of course

U23SA861Y : the one thing it does to would be return 0 for an empty list as opposed to say Nothing

U48AEBJQ3 : How about ``

maybeList : List (Maybe a) -> Maybe (List a)

maybeList =

List.foldr (Maybe.map2 (::)) (Just [])

...

U23SA861Y : hmm, yes I think that would do what you want

U29JSAR9S : cheers guys, been interesting working through this with you - my understanding of how to handle Maybe's has definitely come along this evening!

U23SA861Y : no problem, and good luck