

U4RR7KX45 : <@U48AEBJQ3> what should `mkThing` do?  
U3YA74FQD : I'm writing a spa so I put a key on the problematic pages  
U48AEBJQ3 : `mkThing` : Int -&gt; String -&gt; String -&gt; String -&gt; YourFancyType`  
This could be (but doesn't have to be)

```
`type YourFancyType = MkThing Int String String String`
```

U4RR7KX45 : ah so it should be a type I get it now :smile:  
U4RR7KX45 : damn it's so confusing  
U48AEBJQ3 : It's... very different from what many people have experience with.  
U4RR7KX45 : so if I had 20 fields, do I need to write types for each?  
U4RR7KX45 : I mean, define all of them in the type  
U48AEBJQ3 : If you want to use all 20 fields to construct some type, you would need a function which could take all of those. Although, I might break it up into smaller pieces at that size.  
U300LJUAK : If you need to decode complex type aliases, you should look into elm-decode-pipeline  
<<https://github.com/NoRedInk/elm-decode-pipeline>> :wink:  
U4RR7KX45 : I guess that makes sense elm-way.  
Oh and also in this example:  
<<http://elm-lang.org/examples/http>>  
...

```
decodeGifUrl : Decode.Decoder String  
decodeGifUrl =  
  <http://Decode.at|Decode.at> ["data", "image_url"] Decode.string  
...
```

Why is this a constant? shouldn't it be a function?

U4RR7KX45 : oh wait mine is the same :smile: nvm  
U48AEBJQ3 : One useful thing that you might not have noticed in the documentation is that:  
...

```
type alias YourFancyRecordAlias =  
  { id : Int  
    , title : String  
    , content : String  
    , link : String  
  }  
...
```

This gives you an auto-generated constructor `YourFancyRecordAlias` : Int -&gt; String -&gt; String -&gt; String -&gt;  
YourFancyRecordAlias`

U4RR7KX45 : yeah I saw that. But now I have tons of type related issues.so I created the type  
...

```
type alias Content =  
  { id : Int  
    , content : String  
  }  
...
```

and then my decoder  
...

```
decodeQuoteUrl : Decode.Decoder String  
decodeQuoteUrl =  
  Decode.map2 Content  
    (Decode.field "ID" <http://Decode.int|Decode.int>)  
    (Decode.field "content" Decode.string)  
...
```

but this gives me an error saying that it should be `Decode.Decoder Content`, not `String` for some reason. If I change that to `Decode.Decoder Content`, then this one goes crazy:

...

```
fetchRandomQuoteCmd : Cmd Msg
fetchRandomQuoteCmd =
  Http.send FetchRandomQuoteCompleted fetchRandomQuote
...
```

U48AEBJQ3 : Because `FetchRandomQuoteCompleted` is a constructor that takes a `String` not a `Content`?

U4RR7KX45 : indeed it is :smile:

U4RR7KX45 : damn it

U4RR7KX45 : ok one more question please. I want to extract just the content fields from that list, to have a list of string.  
how can I do that? I tried this``

```
Decode.map String
  (Decode.field "content" Decode.string)
...
```

U48AEBJQ3 : So, you have a list of objects which each have a "content" field, and you want those collected as a `List String`?

U4RR7KX45 : yeah, I want to extract the content from them

U23SA861Y : `Decode.list (Decode.field "content" Decode.string)`

U4RR7KX45 : yes! that's it :smile: